PTO/SB/05 (08-08)
Approved for use through 09/30/2010. OMB 0651-0032
U.S. Patent and Trad emark Office. U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. WAN-0001/CON Attorney Docket No. UTILITY

UTILITY DATENT ADDITION	First In	ventor	Teijun Wang		
PATENT APPLICATION		METHODS, S	SYSTEMS AN		TUS FOR
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37 CFR 1.53(B))	Express	s Mail Label No.			
APPLICATION ELEMENTS				ner for Paten	its
See MPEP chapter 600 concerning utility patent application con	itents.	ADDRESS TO		I50 VA 22313-14	150
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1. X Fee Transmittal Form (e.g., PTO/SB/17)		ACCOMPANYING APPLICATION PARTS			
2. X Applicant claims small entity status. See 37 CFR 1.27.		9. Assignment Papers (cover sheet & document(s))			
3. X Specification [Total Pages 22	1	Name of Assignee			
Both the claims and abstract must start on a new page (For information on the preferred arrangement, see MPEP 608.01(a))		SellerBid			
4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 7	<b>7</b> ]	<u> </u>			
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i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name	e in the		Copies of citations	attached	
prior application, see 37 CFR 1.63(d)(2) and 1.33(b).		13. Prelimir	nary Amendment		
6. X Application Data Sheet. See 37 CFR 1.76					
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8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required)		15. Certified Copy of Priority Document(s)  (if foreign priority is claimed)  16. Nonpublication Request under 35 U.S.C.122 (b)(2)(B)(i).  Applicant must attach form PTO/SB/35 or equivalent.			
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a. Computer Readable Form (CRF)		Applic	cant must attach ton	II P 10/28/35 0	equivalent.
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X Continuation Divisional Continuation			application No.:	11/16	
Prior application information: Examiner Bran	don J.	Miller	Art Unit:	26	517
19. COR	RESPO	NDENCE ADDRE	ESS		
X The address associated with Customer Number: 23353 OR Correspondence address below				ddress below	
Christopher M. Tobin RADER, FISHMAN & GRAUER PLLC					
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Country US Telept	one /	202) 955-3750	) Email	<del></del>	<del></del>
Signature	I		Date	January 2	21, 2011
Name (Print/Type) Christopher M. Tobin		Registration No. (Attorney/Agent)	40,290		
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PTO/SB/17 (10-08)

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).  FEE TRANSMITTAL  For FY 2009			Application Nun	nber	Not Yet Assigned	
			Filing Date		Concurrently Herewith	
			First Named Inv		Teijun Wang	
FULL 1 7009			Examiner Name		Not Yet Assign	ed
X Applicant claims small entity sta	tus. See 37 CFR 1.27		Art Unit		N/A	
TOTAL AMOUNT OF PAYMENT	(\$) 545.00		Attorney Docket	No.	WAN-0001/CO	N
METHOD OF PAYMENT (check	all that apply)					
Check Credit Card	Money Order	Noi	ne Other (	please iden	tify);	
x Deposit Account Deposit Accoun	Number: 18-0	013	Deposit	Account Na	me: Rader, Fishm	nan & Grauer PLLC
For the above-identified dep	osit account, the Dire	ector is	hereby authorize	ed to: (ch	eck all that apply)	
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1. BASIC FILING, SEARCH, AND I		3				
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Utility 330	165	540	270	220	110	545.00
Design 220	110	100	50	140	70	
Plant 220	110	330	165	170	85	
Reissue 330	165	540	270	650	325	
Provisional 220	110	0	0	0	0	
2. EXCESS CLAIM FEES						Small Entity
Fee Description Fee (\$)						
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Each independent claim over 3 (inc	luding Reissues)				220	* * *
Multiple dependent claims		_			390	
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HP = highest number of independent claims paid for, if greater than 3.						
3. APPLICATION SIZE FEE						
If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer						
listings under 37 CFR 1.52(e)), the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$) Fee Paid (\$)						
4. OTHER FEE(S) Fees Paid (\$)						
Non-English Specification, \$130 fee (no small entity discount)						
Other (e.g., late filing surpha(ge):						
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Name (Print/Type) Christopher M.	<b>ó</b> bin				Date	January 21, 2011

PTO/SB/05 (08-08)

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## UTILITY PATENT APPLICATION TRANSMITTAL

(ONLY FOR NEW NONPROVISIONAL APPLICATIONS UNDER 37 CFR 1.53(B))

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Attorney Docket No.		ey Docket No.	WAN-0001/CON
	First I	nventor	Teijun Wang
	Title	DISPLAYIN	SYSTEMS AND APPARATUS FOR G THE MULTIMEDIA INFORMATION ELESS COMMUNICATION, etc.
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APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	Commissioner for Patents  ADDRESS TO: P.O. Box 1450  Alexandria, VA 22313-1450					
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5. Oath or Declaration [Total Sheets 3]	(when there is an assignee) Attorney					
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(for continuation/divisional with Box 18 completed)	12. X Information Disclosure Statement (PTO/SB/08 or PTO-1449)  Copies of citations attached					
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6. X Application Data Sheet. See 37 CFR 1.76	,,					
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Landscape Table on CD						
Nucleotide and/or Amino Acid Sequence Submission     (if applicable, items a. – c. are required)	15. Certified Copy of Priority Document(s) (if foreign priority is claimed)					
16. Nonpublication Request under 35 U.S.C.122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.						
b. Specification Sequence Listing on: 17. X Other:						
i. CD-ROM or CD-R (2 copies); or ii. Paper COPY: Submission of Revocation of Power of Attorney and New Power of Attorney						
c. Statements verifying identity of above copies						
18. If a CONTINUING APPLICATION, check appropriate box, and suppospecification following the title, or in an Application Data Sheet under						
X Continuation Divisional Continuation-in-part (						
Prior application information: Examiner Brandon J						
19. CORRESPONDENCE ADDRESS						
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PTO/SB/17 (10-08)

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TOTAL AMOUNT OF PAYMENT	(\$) 545.00		Attorney Docket	No.	WAN-0001/CO	N
METHOD OF PAYMENT (check	all that apply)					
Check Credit Card	Money Order	Noi	ne Other (	please iden	tify);	
x Deposit Account Deposit Accoun	Number: 18-0	013	Deposit	Account Na	me: Rader, Fishm	nan & Grauer PLLC
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F	ILING FEES Small Entity	SEA	ARCH FEES  Small Entity	EXAM	INATION FEES Small Entity	
Application Type Fee (		Fee (\$		Fee (\$		Fees Paid (\$)
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Multiple dependent claims		_			390	
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HP = highest number of independent claims paid for, if greater than 3.						
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4. OTHER FEE(S) Fees Paid (\$)						
Non-English Specification, \$130 fee (no small entity discount)						
Other (e.g., late filing surpha(ge):						
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#### **Application Data Sheet**

#### **Application Information**

Application Type:: Regular

Subject Matter:: Utility

Suggested Group Art Unit:: N/A

CD-ROM or CD-R?:: None

Sequence submission?:: None

Computer Readable Form (CRF)?:: No

Title:: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA

**INFORMATION FROM WIRELESS** 

**COMMUNICATION NETWORKS** 

Attorney Docket Number:: WAN-0001/CON

Request for Early Publication?:: No

Request for Non-Publication?:: No

Total Drawing Sheets:: 7

Small Entity?:: Yes

Petition included?:: No

Secrecy Order in Parent Appl.?:: No

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Page # 2 Initial 01/21/11

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Page # 3 Initial 01/21/11

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Postal or Zip Code of mailing address::

100037

**Correspondence Information** 

Correspondence Customer Number::

23353

Representative Information

Representative Customer Number::

23353

#### **Domestic Priority Information**

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This Application	Continuation of	11/165,341	06/24/05
11/165,341	Non-provisional of	60/588,358	07/16/04

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22202

### METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Inventors:

Tiejun Wang William E. Halal Tiehong Wang Ximing Wang

#### CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of United States application serial number 11/165,341, filed on June 24, 2005 and entitled "Mobile Terminal Signal Conversion for External Display," which claims the benefit of provisional application serial number 60/588,358, filed on July 16, 2004 and entitled "A Method and System for Displaying the Multimedia Information from Wireless Communications or Portable IT Devices." The entire contents of these applications are hereby incorporated by reference.

#### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

[0002] This invention relates generally to mobile terminals and related technology and more particularly to mobile terminal signal conversion for external display.

#### 2. <u>Description of the Related Art</u>

[0003] Handheld mobile terminals (e.g., cellular phones, personal digital assistants (PDA)) continue to evolve both in terms of execution platform and functionality. It is believed that the much of the functionality provided by a personal computer (e.g., desktop or laptop) will ultimately become virtually available in handheld mobile terminals, which will allow users to work with and access multimedia information any time and anywhere.

Docket No. WAN-0001/CON

[0004] For example, one particularly appealing advantage of the next generation wireless communication system and beyond (*i.e.*, 3G, 4G, etc.) is the capacity to support high rate multimedia data services as well as conventional voice services. In a conventional cellular system a mobile terminal communicates with a base station wirelessly. Multimedia information including but not limited to television, 3D images, network games, and video phone calls is transmitted from various service providers and received for display on the screen of a mobile terminal. The net result of such a system is rich multimedia information being destined for display on the small screens typical of cellular phones (or the like).

[0005] In these and similar systems, the mobile terminal functions as a multimedia terminal to display multimedia information (including high-resolution graphics and high-quality real-time audio/video) sent from high data rate wireless communications network. The limited size (e.g., 2x3") and capability of the mobile terminal screen may render enjoyment of the high rate data flow applications inconvenient, and in some instances useless. One consequence of this inadequacy is likely shrinkage of the potential market size for handheld mobile terminals. Indeed, some have suggested that development of high data rate systems such as 3G systems may be pointless given the limitations imposed by the small screen.

[0006] Some mobile units appear to provide a remote control function to an external display system. However, these do not appear to solve the small screen problem outlined above. That is, they do not accommodate display on a larger, external display of video and other multimedia information originally destined for the mobile terminal display screen.

[0007] For example, one such interface accommodates usage of the mobile terminal as a remote control for a television, by feeding programming guide information to the mobile terminal. This is useful for allowing the programming guide to be viewed locally while the

larger screen displays a current program, but does not address to the above-described small screen problem.

[0008] Although mobile terminals have been developed to include enhanced signal processing and related capabilities, user enjoyment is diminished by the limitations of the display provided with such mobile terminals. What is needed is a solution to the problem of diminished user enjoyment of mobile terminals because of display limitations.

#### **SUMMARY OF THE INVENTION**

[0009] In accordance with the present invention, the multimedia signal destined for the mobile terminal is converted and provided to an external display system, so that the corresponding video and/or audio may be reproduced using the external system.

[0010] It is believed that this feature will be useful in various environments, including but not limited to transportation environments such as planes, trains and automobiles; hotels; waiting areas; and any location where high data rate services can be more fully supported by external display terminals.

[0011] According to one aspect, processing signals for reproduction by an external display terminal includes receiving a video signal that accommodates a video display on a first screen provided by the mobile terminal. The video signal is then processed to provide a converted video signal appropriate for an external display terminal that is separate from the mobile terminal. This converted video signal is then provided for the external display terminal to accommodate the corresponding video display on a screen provided by the external display terminal.

[0012] The present invention can be embodied in various forms, including business processes, computer implemented methods, computer program products, computer systems and networks, user interfaces, application programming interfaces, and the like.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0013] These and other more detailed and specific features of the present invention are more fully disclosed in the following specification, reference being had to the accompanying drawings, in which:

[0014] FIG. 1 is a schematic diagram illustrating an example of a system in which mobile terminal signal conversion may reside in accordance with the present invention.

[0015] FIG. 2 is a block diagram illustrating an example of a mobile terminal signal conversion module in accordance with the present invention.

[0016] FIG. 3 is a block diagram illustrating another example of a mobile terminal signal conversion module in accordance with the present invention.

[0017] FIG. 4 is a flow diagram illustrating an embodiment of a process including mobile terminal signal conversion in accordance with the present invention.

[0018] FIG. 5 is a schematic diagram illustrating another example of a system in which mobile terminal signal conversion may reside in accordance with the present invention.

[0019] FIG. 6 is a schematic diagram illustrating still another example of a system in which mobile terminal signal conversion may reside in accordance with the present invention.

[0020] FIG. 7 is a schematic diagram illustrating examples of mobile terminal signal conversion applications in accordance with the present invention.

#### DETAILED DESCRIPTION OF THE INVENTION

[0021] In the following description, for purposes of explanation, numerous details are set forth, such as flowcharts and system configurations, in order to provide an understanding of one or more embodiments of the present invention. However, it is and will be apparent to one skilled in the art that these specific details are not required in order to practice the present invention.

[0022] FIG. 1 is a schematic diagram illustrating an example of a system 100 in which mobile terminal signal conversion may reside in accordance with the present invention.

[0023] Mobile terminal signal conversion accommodates displaying the high rate data flow multimedia information available in a wireless communication environment in an external device. This accommodates true realization and enjoyment of the benefits of the multimedia content.

In one example, the multimedia information is provided to a wireless mobile terminal using so-called next generation cellular technology (*i.e.*, 3G and 4G), which can be employed in transmitting multimedia information (*e.g.*, rich graphics, real-time audio/video). Because of the relatively small screen size and low quality ear phones, for many applications the mobile terminal cannot adequately reproduce the high quality multimedia information that can be communicated using next generation technology with adequate clarity and satisfaction. Mobile terminal signal conversion in accordance with this embodiment of the present invention makes usage of a separate multimedia display terminal including but not limited to a monitor, television set, projector, or LCD display. These displays typically have video and audio reproduction capabilities that are superior to those found on mobile terminals. They also use a power supply that is separate from the mobile terminal.

[0025] Still referring to the system 100 illustrated in FIG. 1, multimedia information may be provided by any number of service providers 102a-b and delivered through a network 104 to a base station 106 to ultimately accommodate transmission of the multimedia information, among other things, to a cellular phone 108. This system 100 is provided by way of example, and it should be understood that any conventional or to-be-developed technology for delivering voice and/or data to mobile terminals may be provided. These wireless communication networks include but are not limited to a cellular communications network or a wireless local area network.

[0026] Also illustrated is a typical external display system 114. This may also be variously provided and may be digital or analog. Examples of digital systems include HDTV, LCD and plasma. Examples of analog systems include television sets that implement standards such as NTSC, PAL, SECAM, and analog computer monitors (SVGA, VGA). The external display system 114 does not have the size constraints of the display screen on the cellular phone 108 and is preferably powered independently.

[0027] In the illustrated embodiment, a mobile terminal signal conversion module (MTSCM) 112 resides within a separate housing 110, outside the cellular phone 108.

[0028] The functionality of the MTSCM 112 is now further described with concurrent reference to FIG. 1 and the flow diagram of FIG. 4.

[0029] The MTSCM 112 processes signals to accommodate reproduction by an external device. Specifically, a multimedia signal is transmitted to the cellular phone 108 through the wireless communications network as previously described (step 402). The multimedia signal may include a video signal intended for reproduction by the cellular phone 108, using the cellular phone display screen. For ease of description, processing of a video

signal is described, although it should be understood that any multimedia signal or component thereof may be converted in accordance with the present invention.

[0030] The cellular phone 108 is connected to the MTSCM 110. This may be accommodated by a cable connection that interfaces the cellular phone 108 to the MTSCM 112 housing 110. Through this connection, the MTSCM 112 receives the video signal from the cellular phone 108 (step 404). The video signal as received may be configured to accommodate a video display on the screen provided by the cellular phone 108. The cable connection is an example of a wired connection interfacing the cellular phone 108 to the MTSCM 112. An alternative wired connection is a seat that directly interfaces the two without a cable. A wireless connection may also be provided, although it may currently be less practical to provide than the wired connection because of the potential for high throughput rate requirements. The wireless connection may also implement any conventional known technology including but not limited to a Bluetooth connection.

[0031] The MTSCM 112 processes the video signal to provide a converted video signal that has a display format and/or signal power level appropriate for an external display terminal 114 that is separate from the cellular phone 108 (step 406). The display format and/or signal power level of the external display terminal 114 may be different from that of the cellular phone 108 but there may also be embodiments where the format is the same. Even if the formats are the same, conversion of the signals to accommodate display on the external display terminal 114 would still be implemented to adjust the power level for driving the external display, and possibly to minimize throughput requirements. This signal conversion is described further with reference to FIGs. 2 and 3, below.

[0032] Still referring to FIGs. 1 and 4, following signal conversion, the MTSCM 112 provides the converted video signal to the external display terminal 114 to accommodate the

corresponding video display on a screen provided by the external display terminal 114 (step 408). This may be accommodated through a connection between the MTSCM 112 housing 110 and the external display terminal 114 as shown.

[0033] As used herein, mobile terminal refers to typically handheld mobile devices such as cellular phones and personal digital assistants. Although these devices include an execution platform as well as input and display capabilities, such devices are distinguished from personal computers, such as desktop or laptop computers, which are not designed for convenient handheld usage.

[0034] FIG. 2 is a block diagram illustrating an example of an MTSCM 200 in accordance with the present invention. The MTSCM 200 may be provided as software, firmware, hardware, or any combination thereof.

[0035] Where the MTSCM 200 is provided as software, it operates in the context of an execution platform. That is, the MTSCM 200 includes instructions that are stored in memory for execution by a processor. Any conventional or to-be-developed execution platform may be used. The processor, memory, and related elements such as a power supply are well known and need not be described herein to convey an understanding of the invention.

Additionally, FIG. 2 illustrates one modular breakdown for the components of the MTSCM 200. It should be understood that the described functionality may alternatively be provided by an MTSCM having fewer, greater, or differently named modules from those illustrated in the figure.

[0036] Additionally, although modules as shown to reside in a common location, it is noted that the functionality may reside in separate components of a system that includes a mobile terminal, an external monitor, and (optionally) an intermediate device housing the MTSCM and interfacing the mobile terminal and external monitor. In other words, the

overall functionality of the MTSCM may be separated such that portions of the overall functionality are respectively provided by the mobile terminal, separate intermediate housing, and/or the external display device.

[0037] The MTSCM 200 may also be provided in the form of a chipset, configured for inclusion in a mobile terminal, dedicated separate signal conversion device, or external display terminal, and to provide the described mobile terminal signal conversion functionality.

[0038] The MTSCM 200 includes a mobile terminal interface module 202, a signal conversion module 204, and an external device interface module 206.

[0039] The mobile terminal interface module 202 accommodates receiving the multimedia signal from the mobile terminal. A conventional physical interface provides a connection between the MTSCM 200 and the mobile terminal through which the signals flow to the MTSCM 200. The mobile terminal interface module 202 recognizes the multimedia signal and stores the signal for processing by the remaining modules. Buffering and the like may be implemented to accommodate storage and signal processing, as described further below.

[0040] The signal conversion module 204 is in communication with the mobile terminal interface module 202 and thus accesses the received multimedia signal. The signal conversion module 204 recognizes the multimedia signal format, and processes the multimedia signal to provide a converted signal. The converted signal may have a format and a signal power level that differs from the one used by the mobile terminal, as appropriate for one or more types of external devices to which the MTSCM 200 is connected. Various examples of the type of devices to which the MTSCM 200 may be connected are illustrated and described in connection with FIG. 3, below.

[0041] The external device interface 206 is in communication with the signal conversion module 204 and thus accesses the converted signal. The external device interface 206 also allows connection to the external (e.g., display) device. The external device interface 206 may provide both the feeding of the converted signal to the external device, and driving the external device. Alternatively, the external device interface 206 may merely feed the converted signal to the external device, with the external device including internal elements for driving its signal reproduction (e.g., display) facilities.

[0042] FIG. 3 is a block diagram illustrating another example of the MTSCM 300. The MTSCM 300 includes additional detail regarding the signal conversion aspect, and illustrates examples of differing types of external devices to which the MTSCM 300 may provide converted signals. The illustration and corresponding description are provided by way of example. Although numerous connections are illustrated, it should be understood that the present invention may be practiced in the context of providing as few as one, and as many as all of the listed connections. It should also be understood that there may be additional examples that are not listed herein, but which are encompassed by the teachings described herein.

The MTSCM 300 includes an interface/buffer module 302 that is analogous to the previously described mobile terminal interface module. The buffer and interfacing are configured to accommodate signal processing by the remaining elements in support of the requirements and expectations of users of the multimedia signal output (e.g., adequate buffering and processing rate to provide real time audio/video). The mobile terminal video compression format may of course vary, but currently the most likely format is MPEG-1 or MPEG-2. Buffering and throughput rate may also be provided as desired by the designer. Currently, it is believed that 200 Mb is an adequate buffer size, although buffers of 500 Mb

or more may of course be provided. Additionally, a throughput rate of approximately 10 Gb/s will be adequate for many current systems, but may be increased as demands and technology evolve.

The Video Compress Decoder 304a receives the multimedia signal. The multimedia signal is typically provided in a compressed format to accommodate increased signal transfer rates. An example of a compression scheme is that provided by one of the MPEG standards (e.g., MPEG-1, MPEG-2, MPEG-4). The Video Compress Decoder 304a is configured to include the appropriate compression/decompression (CODEC) module to accommodate decompression of the received multimedia signal. For example, where the compression scheme is MPEG, the Video Compress Decoder 304a includes an MPEG CODEC to accommodate processing of such multimedia signals.

[0045] As an alternative to provision of the Video Compress Decoder 304a in the MTSCM 300, the functionality may be provided within the cellular phone or other mobile terminal. However, this may be less practical because of the high bandwidth that would be required between the cellular phone and the MTSCM 300 to deliver the decompressed signal, and the corresponding likelihood of a larger buffer requirement for the MTSCM 300.

The Video Compress Decoder 304a outputs a decompressed digital multimedia signal that is passed to the Digital/Analog Video Encoder (DAVE) 304b and/or the Digital/Digital Video Encoder (DDVE) 304c. The DAVE 304b is configured to prepare signals for analog external display terminals 320, and the DDVE 304c is configured to prepare signals for digital external display terminals 322. The DAVE 304b and DDVE 304c respectively receive the decompressed multimedia signal and convert the signals to the format(s) and signal power level(s) required for the terminals to which they interface.

[0047] Examples of formats used by analog display terminals 320 include S-video, RGBHV, RGBS, and EIA770.3 as illustrated. Similarly, the DDVE 304c provides output using standards such as DVI, DVI-D, HDMI, and IEEE1394. The signals respectively provided by the DAVE 304b and DDVE 304c are provided to the terminals through conventional interfaces 306a-b. The DAVE 304b functionality may be embodied as a video card that is configured accordingly. Examples of video cards that may be configured to provide the described functionality include but are not limited to the Diamond Stealth S60, ASUS V9400-X, or RADEON 7000.

[0048] Ultimately, the signals are used to provide a display on the external display, as required according to the particular type of display. For example, the video data stream may be a digital RGB signal which represents the intensity of the red, green and blue light respectively at different position. This signal is converted to analog by a D/A converter. This converted analog signal is quantified to the voltage and format required by the standard, such as the input of cathode-ray-tube (CRT) monitor. This standard video signal will drive a set of electron guns, which produce a controlled stream of electrons to display of red, green and blue light respectively on a CRT screen. This is but one example and the present invention is not limited to a particular technology (e.g., CRT) for the external display.

[0049] As described, in one embodiment the MTSCM may be independently housed separately from both the mobile terminal and external display terminal, with respective connections to the other devices to provide a system configuration that includes the three pieces of hardware (mobile terminal, conversion box, external display terminal). This configuration provides the flexibility of allowing any standard mobile terminal and/or display to be potentially interface with the MTSCM without imposing constraints on the mobile

terminal or external display terminal manufacturers. A possible drawback to this configuration is that additional hardware is introduced into the system.

[0050] In lieu of the three component system, the MTSCM may be located in either the mobile terminal or the external display. FIG. 5 is a schematic diagram illustrates an example of a system 500 in which the MTSCM mobile terminal signal conversion may reside within the mobile terminal 508. The components and functionality of the service providers 502a,b network 504 and base station 506 for delivering multimedia signals to the mobile terminal 508 is the same as for the analogous elements of FIG. 1 and need not be re-described. Similarly, the external display terminal 514 may be any of the various types named above.

The MTSCM 512 provides the same functionality described above. However, in contrast to residence in a separate housing, the MTSCM 512 is a component of the mobile terminal 508. A potential advantage of this system 500 is that, again, any standard equipment can serve as an external display terminal 514, without a constraint on the display manufacturer. Additionally, only a simple wired or wireless interface is required to connect the external display with the mobile terminal 508. This means, for example, that the user will not be required to carry a bulky conversion module in addition to their cellular phone.

[0052] A potential drawback to this system 500 is that the execution platform of the mobile terminal 508 may be designed to accommodate only traditional functionality, so for some systems it may be challenging to add the MTSCM functionality to the existing platform. Additionally, the MTSCM will consume power that may unduly exhaust the limited power supply offered by the mobile terminal 508 battery. It is useful for this embodiment to provide power to the mobile terminal 508 through the cable connection to the external display terminal 514, but again this may require modification to the mobile terminal 508 as the existing charger interface may be insufficient.

[0053] FIG. 6 is a schematic diagram illustrating another example of a system 600, in which the MTSCM 612 resides within the external display terminal 614. As with FIG. 5, the components and functionality of the service providers 602a,b network 604 and base station 606 for delivering multimedia signals to the mobile terminal 608 is the same as for the analogous elements of FIG. 1 and need not be re-described.

Here, the mobile terminal 608 need only be connected directly to the external display terminal 614. However, in lieu of having the MTSCM 612 functionality reside within the mobile terminal 608, it is part of the external display terminal 614. The power supply and execution platform issues associated with placing the MTSCM 614 in the mobile terminal are resolved with this system 600, and any mobile terminal 608 can potentially be connected to any MTSCM-ready external display without requiring modification, other than provision of an output interface. A potential drawback of this configuration is that it adds a component to the standard external display terminal, and corresponding costs.

[0055] FIG. 7 is a schematic diagram illustrating examples of mobile terminal signal conversion applications 700 in accordance with the present invention. These applications 700 are provided by way of example, to give the reader an understanding of the potential contexts in which embodiments of the present invention may operate. The present invention is not limited to the disclosed applications, nor are all potential applications required for any given embodiment.

[0056] The basic architecture for provision of the wireless communications signal and corresponding multimedia signal is as described above for the service providers 702a-b, network 704, base station 706 and mobile terminal 708. The MTSCM 710 may be separate or reside in the mobile terminal 708 or display terminal 712. Examples of applications 714 where a larger screen and potentially superior audio may be enjoyed include video

conference, HDTV, games, GPS, and video on demand. Additionally, embodiments of the present invention will accommodate enjoyment of full multimedia capability in locations 716 including vehicles, airports, hotels and remote resorts. Thus, for example, the present invention accommodates usage inside a vehicle, a plane or any type of transportation, enabling the passenger to browse the Internet, watch TV, play games, participate in a video conference or call, and work on all sorts of software with full functionality.

[0057] Thus embodiments of the present invention produce and provide mobile terminal signal conversion. Although the present invention has been described in considerable detail with reference to certain embodiments thereof, the invention may be variously embodied without departing from the spirit or scope of the invention. Therefore, the following claims should not be limited to the description of the embodiments contained herein in any way.

#### **CLAIMS**

- 1. A method for processing signals to accommodate reproduction by an alternative display terminal, the method comprising:
  - receiving by a conversion module a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received by the conversion module from a cellular network communication that is sent to the mobile terminal and then received by the conversion module;
  - processing by the conversion module the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing by the conversion module includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal produced by the conversion module comprises a display format appropriate for driving the alternative display terminal; and providing the converted video signal from the conversion module to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.
  - 2. The method of claim 1, wherein the mobile terminal is a cellular phone.
- 3. The method of claim 1, wherein the mobile terminal is a personal digital assistant.

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- 4. The method of claim 1, wherein receiving the video signal, processing the video to produce the converted video signal, and providing the converted video signal to the alternative display terminal is performed using power from a source that differs from the internal power supply of the mobile terminal.
- 5. The method of claim 1, wherein the conversion module resides in the alternative display terminal.
- 6. The method of claim 1, wherein the video signal received is part of a multimedia signal that is received in the cellular network communication.
- 7. The method of claim 1, wherein the alternative display terminal is an external display terminal.
- 8. A system for processing signals to accommodate reproduction by an alternative display terminal, the system comprising:
  - means for receiving a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the means for receiving the video signal;
  - means for processing the video signal to produce a converted video signal for use by
    the alternative display terminal, wherein processing by the means for
    processing the video signal includes converting the video signal from a
    compression format appropriate for the mobile terminal to a display format for

the alternative display terminal that is different from the compression format, such that the converted video signal produced by the means for processing the video signal comprises a display format appropriate for driving the alternative display terminal; and

means for providing the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

- 9. The system of claim 8, wherein the mobile terminal is a cellular phone.
- 10. The system of claim 8, wherein the mobile terminal is a personal digital assistant.
- 11. The system of claim 8, wherein receiving the video signal, processing the video to produce the converted video signal, and providing the converted video signal to the alternative display terminal is performed using power from a source that differs from the internal power supply of the mobile terminal.
- 12. The system of claim 8, wherein the means for receiving the video signal, means for processing the video signal to produce the converted video signal, and means for providing the converted video signal to the display terminal reside in a conversion module within the alternative display terminal.
- 13. The system of claim 8, wherein the video signal received is part of a multimedia signal that is received in the cellular network communication.

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- 14. The system of claim 8, wherein the alternative display terminal is an external display terminal.
- 15. An apparatus for processing signals to accommodate reproduction by an alternative display terminal, the apparatus comprising:
  - an interface module, which receives a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the interface module;
  - a signal conversion module, in operative communication with the interface module, which processes the video signal to produce a converted signal for use by the alternative display terminal, wherein processing by the signal conversion module includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises a display format appropriate for driving the alternative display terminal; and
  - a device interface module, in operative communication with the signal conversion module, which provides the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.
  - 16. The apparatus of claim 15, wherein the mobile terminal is a cellular phone.

- 17. The apparatus of claim 15, wherein the mobile terminal is a personal digital assistant.
- 18. The apparatus of claim 15, wherein power to receive the video signal, process the video to produce the converted video signal, and provide the converted video signal to the alternative display terminal is from a source that differs from the internal power supply of the mobile terminal.
- 19. The apparatus of claim 15, wherein the apparatus resides in the alternative display terminal.
- 20. The apparatus of claim 15, wherein the video signal received is part of a multimedia signal that is received in the cellular network communication.

# METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS ABSTRACT of the DISCLOSURE

Video signals for a mobile terminal are converted to accommodate reproduction by an alternative display terminal. The video signal is processed to provide a converted video signal appropriate for an alternative display terminal that is separate from the mobile terminal. This converted video signal is then provided for the alternative display terminal to accommodate the corresponding video display on a screen provided by the alternative (e.g., external) display terminal.

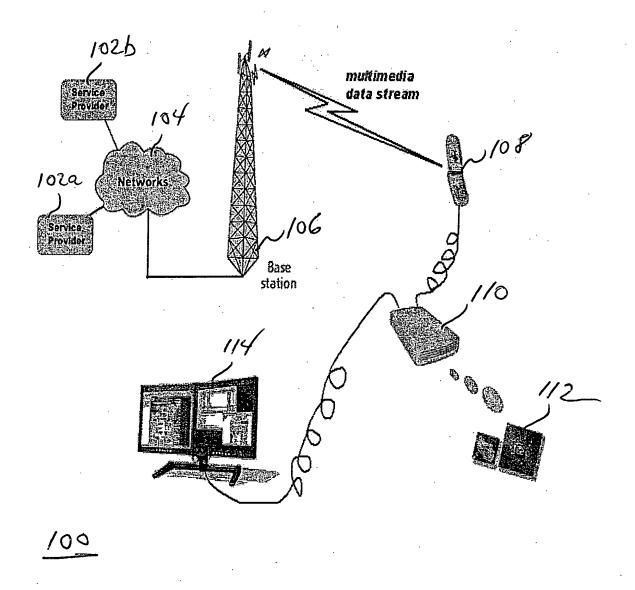


FIG. 1

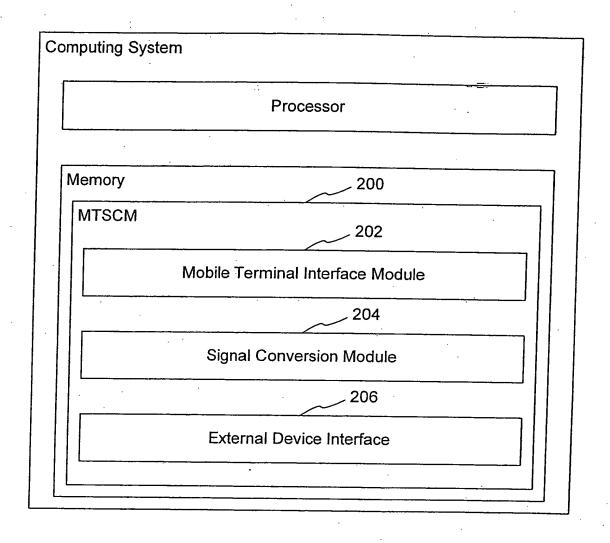


FIG. 2

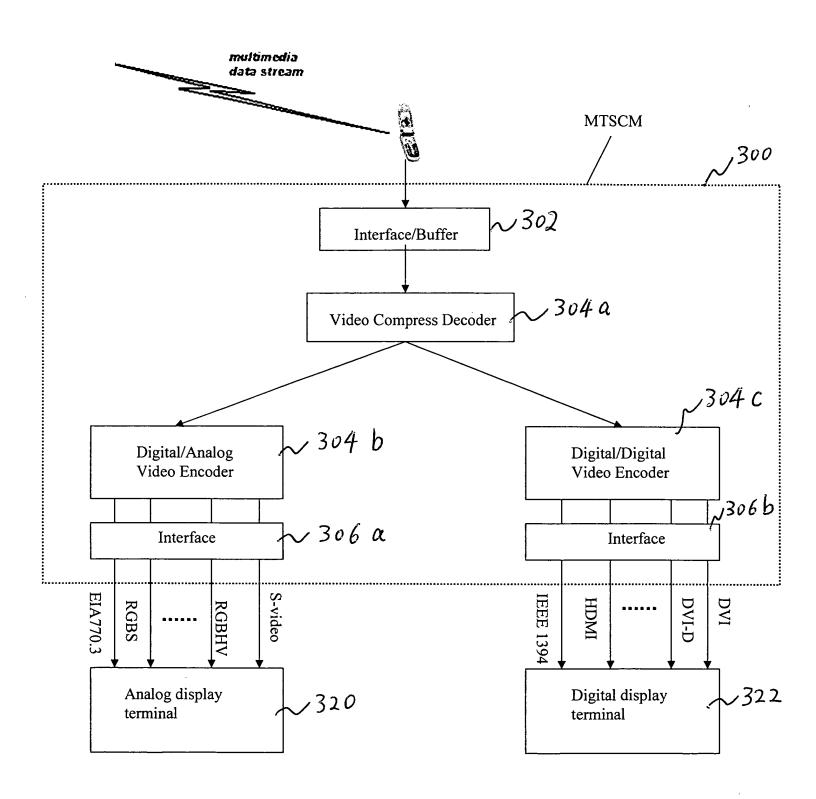


FIG. 3

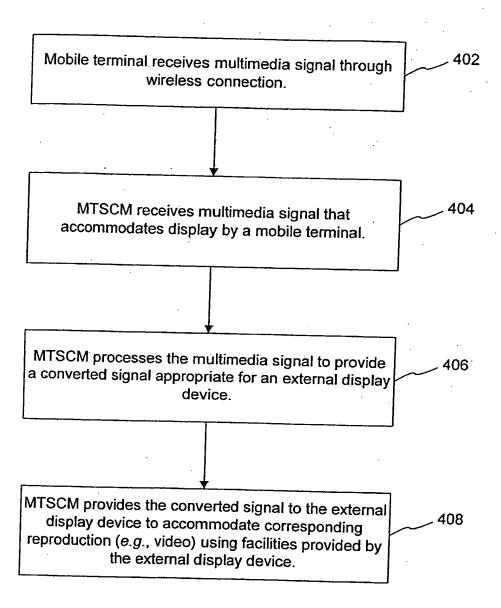


FIG. 4

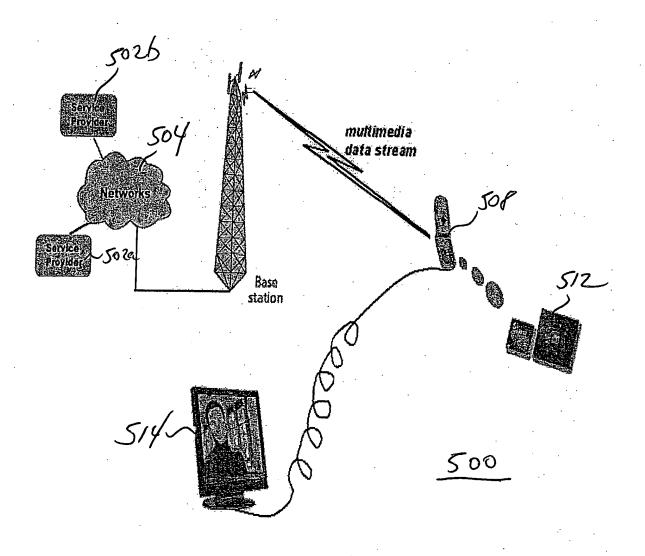


FIG. 5

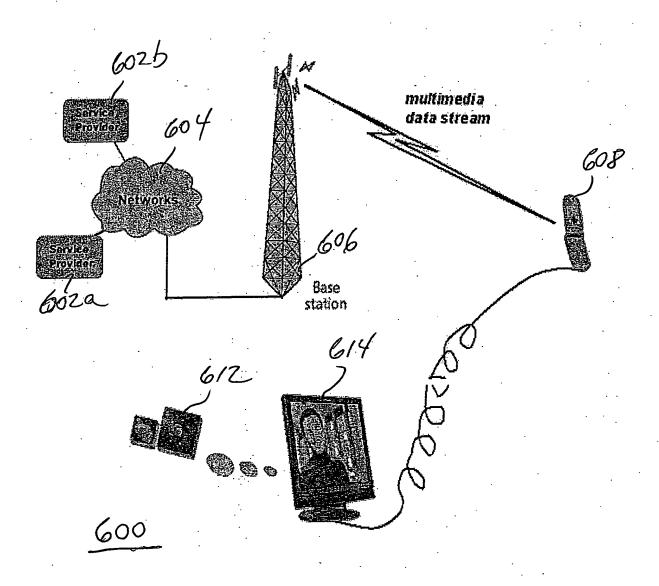
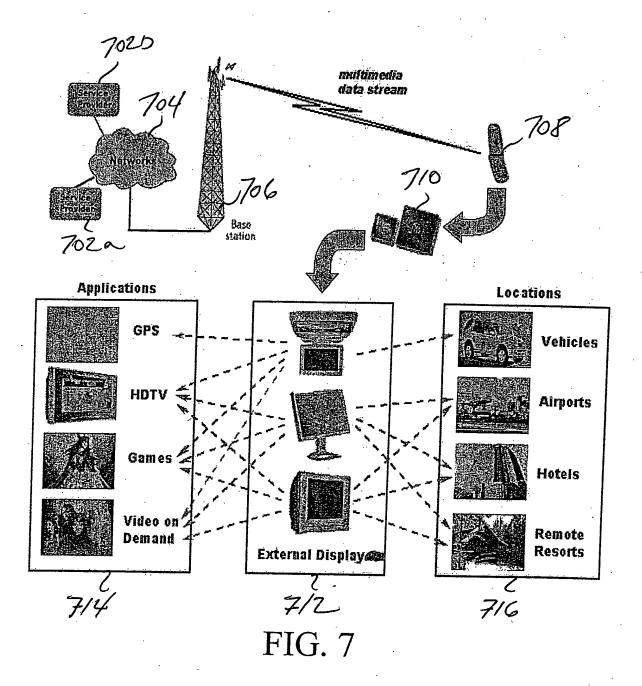


FIG. 6



PTO/SB/01 (04-05)

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. **Attomey Docket DECLARATION FOR UTILITY OR** Number First Named Inventor Tiejun (Ronald) Wans DESIGN PATENT APPLICATION COMPLETE IF KNOWN (37 CFR 1.63) Application Number Filing Date Declaration Declaration Submitted Submitted after Initial Art Unit Filing (surcharge With Initial (37 CFR 1.16 (e)) Filing **Examiner Name** required) I hereby declare that: Each inventor's residence, mailing address, and citizenship are as stated below next to their name. I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled: Tiejun (Rondd) Wang

Tiehong (Ann) Wang

William E. Halal

Ximing Wang

(Title of the Invention)

the specification of which Mobile Terminal Signal Conversion for External Display is attached hereto was filed on (MM/DD/YYYY) as United States Application Number or PCT International Application Number and was amended on (MM/DD/YYYY) (if applicable). I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed. **Prior Foreign Application** Foreign Filing Date Priority **Certified Copy Attached?** Country Number(s) (MM/DD/YYYY) Not Claimed Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto. [Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commarce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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#### **DECLARATION** — Utility or Design Patent Application

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l s	STATEMENT BY APPLICANT			First Named Inventor	Teijun Wang
				Art Unit	N/A
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Sheet	1	of	4	Attorney Docket Number	WAN-0001/CON

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				Art Unit	N/A			
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Examiner	Date	
Signature	 Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. \*\* CITE NO.: Those document(s) which are marked with an double asterisk (\*\*) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO	stitute for form 1449/PT	·o		_	Complete if Known
				Application Number	Not Yet Assigned
IN	IFORMATIO	ON DI	SCLOSURE	Filing Date	Concurrently Herewith
S	STATEMENT BY APPLICANT			First Named Inventor	Teijun Wang
				Art Unit	N/A
	(Use as many sheets as necess ary)			Examiner Name	Not Yet Assigned
Sheet	3	of	4	Attorney Docket Number	WAN-0001/CON

		-	U.S. PA	TENT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> ( if known)		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AM1*	US-6,128,509	10-03-2000	Veijola et al.	
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FOREIGN PATENT DOCUMENTS							
	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,		
	No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>	
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Examiner	Date
Signature	Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. \*\* CITE NO.: Those document(s) which are marked with an double asterisk (\*\*) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WPO Standard ST.3). 1 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 8 Applicant is to place a check mark here if English language Translation is attached. mark here if English language Translation is attached.

PTO/SB/08b (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trad emark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known		
				Application Number	Not Yet Assigned	
11	FORMATION	l DI	SCLOSURE	Filing Date	Concurrently Herewith	
S	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Teijun Wang	
				Art Unit	N/A	
ŀ	(Use as many sh	eets as	necess ary)	Examiner Name	Not Yet Assigned	
Sheet 4 of 4		Attorney Docket Number	WAN-0001/CON			

Examiner	laminer Cite Include name of the author ( in CAPITAL LETTERS), title of the article (when appropriate), title of								
Initials	No.1	the item (book, magazine, journ al, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>						
	CA	Notification of Transmittal of the International Search Report and the Written Opinion of the International Searching Authority, or the Declaration; International Application No: PCT/US05/25284; Filing Date: July 15, 2005.							
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Examiner		
Signature	Considered	1

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&#</sup>x27;Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

#### **SCORE Placeholder Sheet for IFW Content**

Application Number: 12929408 Document Date: 01/21/2011

The presence of this form in the IFW record indicates that the following document type was received in paper and is scanned and stored in the SCORE database.

Drawings

Images of the original documents are scanned in gray scale or color and stored in SCORE. Bi-tonal images are also stored in IFW. Defects visible in both IFW and SCORE are indicative of defects in the original paper documents.

To access the documents in the SCORE database, refer to instructions developed by SIRA.

At the time of document entry (noted above):

- Examiners may access SCORE content via the eDAN interface.
- Other USPTO employees can bookmark the current SCORE URL (http://es/ScoreAccessWeb/).
- External customers may access SCORE content via the Public and Private PAIR interfaces.

Form Revision Date: December 8, 2006

<b>PATENT</b>	APPLICATION	SERIAL NO	•

## U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEE RECORD SHEET

01/24/2011 LNGUYEN1 00000062 180013 12929408

01 FC:2011 165.00 DA 02 FC:2111 270.00 DA 03 FC:2311 110.00 DA

PTO-1556 (5/87)

Docket No.: WAN-0001

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

ر- ٔ

Tiejun Wang et al.

Application No.: 11/165,341

Confirmation No.: Not Yet

Assigned

Filed: June 24, 2005

Art Unit: Not Yet Assigned

For: MOBILE TERMINAL SIGNAL

CONVERSION FOR EXTERNAL

DISPLAY

Examiner: Not Yet Assigned

### SUBMISSION OF REVOCATION OF POWER OF ATTORNEY AND NEW POWER OF ATTORNEY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Submitted herewith is a Revocation and New Power of Attorney for the above-identified application.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. WAN-0001 from which the undersigned is authorized to draw.

Dated: December 8, 2005

Respectfully submitted

By Christopher M. Tolyn

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC

1233 20th Street, N.W.

Suite 501

Washington, DC 20036

(202) 995-8779

Attorneys for Applicant

Docket No.: WAN-0001 80418-0001 (PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Tiejun Wang et al.

Application No.: 11/165,341

Confirmation No.: Not Yet

Assigned

Filed: June 24, 2005

Art Unit: Not Yet Assigned

For: MOBILE TERMINAL SIGNAL

CONVERSION FOR EXTERNAL

DISPLAY

Examiner: Not Yet Assigned

### REVOCATION OF POWER OF ATTORNEY AND NEW POWER OF ATTORNEY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The undersigned having, on or about September 14, 2005, appointed COLLIER SHANNON SCOTT of Washington Harbour, Suite 400, 3050 K Street NW, Washington, DC 20007 as our attorney to prosecute an application for Letters Patent, which application was filed on June 24, 2005, for an invention entitled MOBILE TERMINAL SIGNAL CONVERSION FOR EXTERNAL DISPLAY, Application No. 11/165,341, hereby revokes the Power of Attorney then given, and hereby appoints the following attorneys and/or agents to prosecute this application and transact all business in the U.S. Patent and Trademark Office connected herewith:

All practitioners at Customer Number 23353.

Application No.: 11/165,341 Docket No.: WAN-0001 80418-0001

#### Address all communications to:

Christopher M. Tobin RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501

Washington, DC 20036 (202) 955-3750

Dated:	12/05/05	No
		Teijun Wang Tiejun Wang
Dated:	·	
· ·		William E. Halal
Dated:		
	,	Tiehong Wang
Dated:		
		Ximing Wang .

Application No.: 11/165,341

Docket No.: WAN-0001

80418-0001

#### Address all communications to:

Christopher M. Tobin RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501 Washington, DC 20036 (202) 955-3750

Dated:		7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Dated: 17/1/0	<u>55</u>	Teijun Wang William E. Halal
Dated:	- The sufficiency de	Tiehong Wang
Dated:	<del></del>	Ximing Wang

Application No.: 11/165,341

Docket No.: WAN-0001

80418-0001

#### Address all communications to:

Christopher M. Tobin RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501 Washington, DC 20036 (202) 955-3750

Dated:		
		Teijun Wang
Dated:		
	•	William E. Halal
Dated:	12.03.2005	
		Tiehong Wang
Dated:		
		Ximing Wang

Application No.: 11/165,341

Docket No.: WAN-0001 80418-0001

#### Address all communications to:

Christopher M. Tobin RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501 Washington, DC 20036 (202) 955-3750

Dated:		Teljun Wang
Dated:		William E. Halal
Dated:		Tiehong Wang
Dated:	12.1.2005	Ximing Wang

Docket No.: WAN-0001/CON

(PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Continuation Patent Application of

Application No.: 11/165,341 of

Teijun Wang et al.

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Examiner: Not Yet Assigned

#### **INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Submitted herewith on Form PTO-1449 or PTO/SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR 1.56. Applicant respectfully requests that the listed documents be considered by the Examiner and formally be made of record in the present application and that an initialed copy of Form PTO-1449 or PTO/SB/08 be returned in accordance with MPEP §609.

As provided in 37 CFR §1.98(d), copies of the documents are not being provided since they were previously cited by or submitted to the Patent Office in parent application Serial No. 11/165,341 filed June 24, 2005.

#### Concise Explanation of Relevancy of the Document

(Fill out if no English translation, partial translation or English abstract is available)

Any document having neither English translation nor English abstract relates to the subject matter of the above-identified application. English translation of the document is not readily available; however, the absence of such translations does not relieve the PTO from its duty to consider the submitted document (37 C.F.R. §1.98 and MPEP §609).

Application No.: Not Yet Assigned Docket No.: WAN-0001/CON

1. This Information Disclosure Statement is being filed within three months of the U.S. filing date or within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in compliance with 37 C.F.R. §1.97(b), OR is being filed concurrent with filing of the Continued Prosecution Application (CPA) or the Request for Continued Examination (RCE). No fee is required (37 C.F.R. §1.97(b)).

Dated: January 21, 2011

Christopher M. Tobin

Respectfully submitted

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC Correspondence Customer Number: 23353

Attorney for Applicant

	PATE	NT APPLI		ON FEE DE titute for Form		ION RECORE	)	Applicat 12/92	tion or Docket Num 9,408	iber
	APPL	ICATION A			umn 2)	SMALL	ENTITY	OR	OTHEF SMALL	
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XAN	R 1.16(k), (i), or (m))  MINATION FEE	<del>                                     </del>	/A		J/A	N/A	110	1	N/A	
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•	Application Size Fee	(37 CFR 1.16(s))	ı							
1	FIRST PRESENTAT	ION OF MULTIPL	E DEPEN	DENT CLAIM (37 C	CFR 1.16(j))			OR		
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_						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	



#### United States Patent and Trademark Office

INITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Sox 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NUMBER 12/929,408

FILING OR 371(C) DATE 01/21/2011

FIRST NAMED APPLICANT Tiejun Ronald Wang

ATTY. DOCKET NO./TITLE WAN-0001/CON

**CONFIRMATION NO. 2646** 

**FORMALITIES LETTER** 

Date Mailed: 02/07/2011

23353 **RADER FISHMAN & GRAUER PLLC** LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036

#### NOTICE TO FILE CORRECTED APPLICATION PAPERS

#### Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - The drawings submitted to the Office are not electronically reproducible because portions of figures 1, & 5-7 are missing and/or blurry.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

#### Replies should be mailed to:

Mail Stop Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web. <a href="https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html">https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html</a>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <a href="http://www.uspto.gov/ebc.">http://www.uspto.gov/ebc.</a>

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/rnegga/	
Office of Data Management, Application Assistance Unit (571)	272-4000, or (571) 272-4200, or 1-888-786-0101



#### United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION	FILING or	GRP ART				
NUMBER	371(c) DATE	UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/929 408	01/21/2011	2617	545	WAN-0001/CON	20	3

**CONFIRMATION NO. 2646** 

FILING RECEIPT

\*OC00000045857863\*

23353 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036

Date Mailed: 02/07/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

#### Applicant(s)

Tiejun Ronald Wang, La Jolla, CA; William E. Halal, Washington, DC; Tiehong Ann Wang, Arlington, VA; Ximing Wang, Beijing, CHINA;

#### **Assignment For Published Patent Application**

SellerBid, Inc., Arlington, VA

Power of Attorney: The patent practitioners associated with Customer Number 23353

#### Domestic Priority data as claimed by applicant

This application is a CON of 11/165,341 06/24/2005 which claims benefit of 60/588,358 07/16/2004

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <a href="http://www.uspto.gov">http://www.uspto.gov</a> for more information.)

If Required, Foreign Filing License Granted: 02/04/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/929.408** 

Projected Publication Date: To Be Determined - pending completion of Corrected Papers

Non-Publication Request: No Early Publication Request: No

\*\* SMALL ENTITY \*\*

page 1 of 3

#### **Title**

Methods, systems and apparatus for displaying the multimedia information from wireless communication networks

#### **Preliminary Class**

455

#### PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

# LICENSE FOR FOREIGN FILING UNDER Title 35, United States Code, Section 184 Title 37, Code of Federal Regulations, 5.11 & 5.15

#### **GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where

page 2 of 3

the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

#### **NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



23353

#### United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE UNITED STATES DEPARTMENT OF COMME United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Vriginia 22313-1450 www.usplo.gov

APPLICATION NUMBER 12/929,408

FILING OR 371(C) DATE 01/21/2011

FIRST NAMED APPLICANT Tiejun Ronald Wang

ATTY. DOCKET NO./TITLE WAN-0001/CON

**CONFIRMATION NO. 2646** 

POA ACCEPTANCE LETTER

Date Mailed: 02/07/2011

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036

#### NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/21/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/yli/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101





Docket No.: WAN-0001/CON (PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Teijun Wang et al.

Application No.: 12/929,408

Filed: January 21, 2011

For: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Confirmation No.: 2646

Art Unit: 2617

Examiner: Not Yet Assigned

#### RESPONSE TO NOTICE TO FILE CORRECTED APPLICATION PAPERS

MS Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the Notice to File Corrected Application Papers – Filing Date Granted mailed February 7, 2011, Applicant respectfully submits Replacement Drawings for Figures 1, 5-7, (subfigures are part of a single drawing) and Part 2 Copy of Notice.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-0013, under Order No. WAN-0001/CON.

Bv

Dated: March 2, 2011

Respectfully submitted,

Christopher M. Tobin

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC Correspondence Customer Number: 23353

Attorney for Applicant

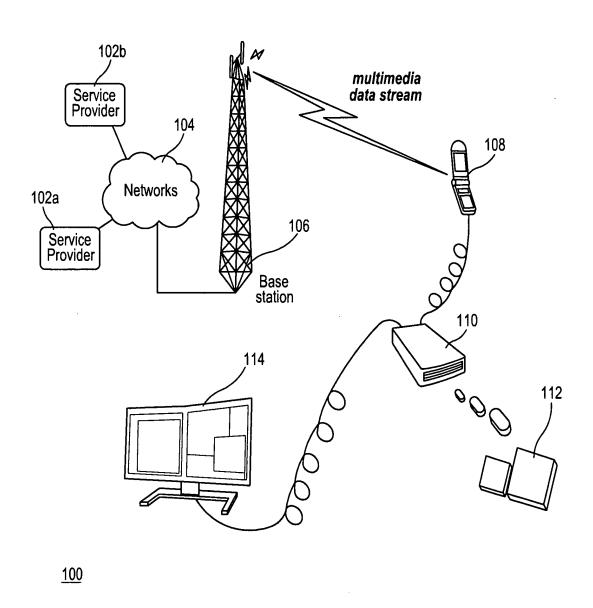


FIG. 1

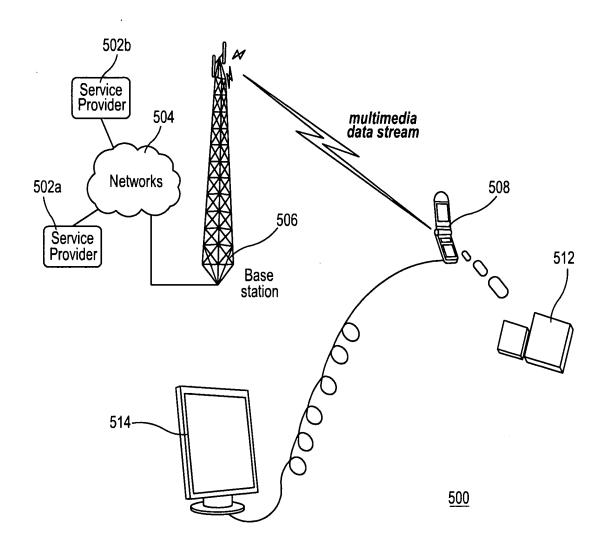


FIG. 5

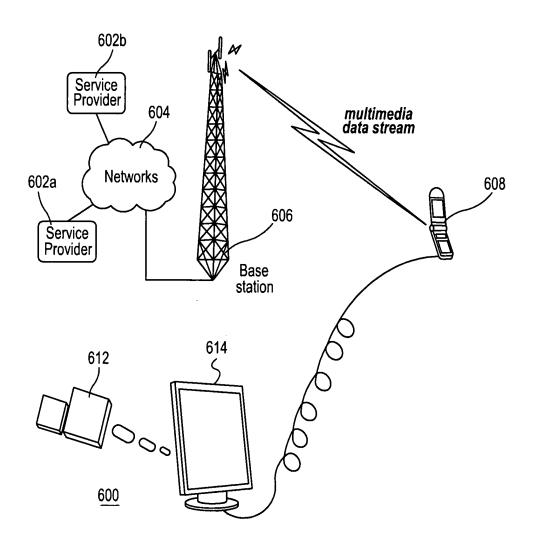


FIG. 6

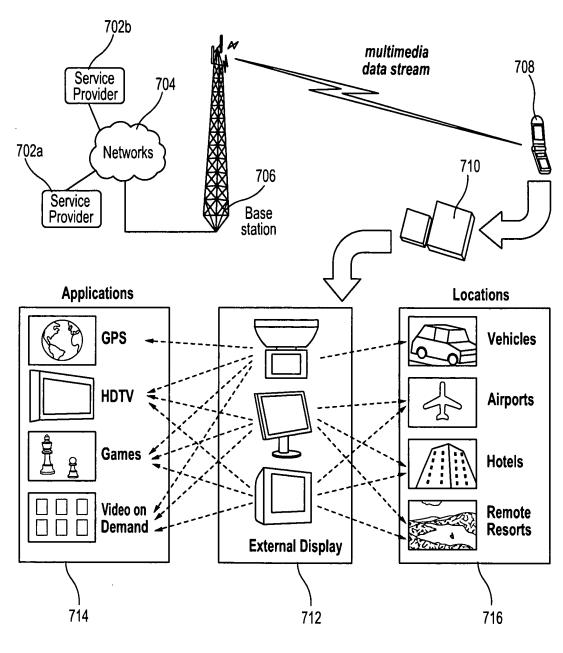
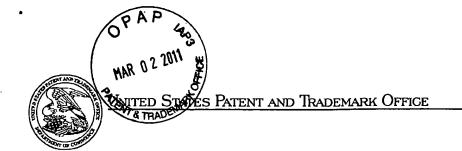


FIG. 7



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

FORMALITIES LETTER

APPLICATION NUMBER

FILING OR 371(C) DATE

FIRST NAMED APPLICANT

ATTY. DOCKET NO./TITLE

12/929,408

01/21/2011

Tiejun Ronald Wang

WAN-0001/CON CONFIRMATION NO. 2646

23353

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501

WASHINGTON, DC 20036

DOCKETED ...

Date Mailed: 02/07/2011

cm+: 80418-0014

#### NOTICE TO FILE CORRECTED APPLICATION PAPERS

#### Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - The drawings submitted to the Office are not electronically reproducible because portions of figures 1, & 5-7 are missing and/or blurry.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

#### Replies should be mailed to:

Mail Stop Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web. <a href="https://sportal.uspto.gov/authenticate/Authenticate/Authenticate/SerLocalEPF.html">https://sportal.uspto.gov/authenticate/Authenticate/SerLocalEPF.html</a>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <a href="http://www.uspto.gov/ebc.">http://www.uspto.gov/ebc.</a>

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

	/megga/				
Office of Data I	Management, Application Assistance Unit (571)	272-4000, o	r (571) 272-4200,	or 1-888-786-010 <sup>-</sup>	

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875									Application or Docket Number 12/929,408		
APPLICATION AS FILED - PART I  (Column 1) (Column 2) SMALL ENTITY									OTHER THAN OR SMALL ENTITY		
ı ,		NUMBE	ER FILED NUMBER EXTRA		RATE(\$)	FEE(\$)	]	RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))		N	N/A		J/A	N/A	165	1	N/A		
SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N	N/A		J/A	N/A	270	1	N/A		
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N	N/A		J/A	N/A	110	1	N/A		
TOTAL CLAIMS (37 CFR 1.16(i))		20	minus	O = *		x 26 =	0.00	OR			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		AS 3	minus	3 = *		x 110 =	0.00	1			
APPLICATION SIZE FEE (37 CFR 1.16(s))  If the specification and draw sheets of paper, the applica \$270 (\$135 for small entity) 50 sheets or fraction thereo 41(a)(1)(G) and 37 CFR 1.1				e application si all entity) for ea on thereof. See	ze fee due is ch additional		0.00				
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00	1			
* If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL 545						545	1 '	TOTAL			
AMENDMENT A		(Column 1)  CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL RATE(\$)	ADDITIONAL FEE(\$)	OR	OTHEF SMALL RATE(\$)		
	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	х =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =		
AME	Application Size Fe	e (37 CFR 1.16(s))	)					1			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
AT B		(Column 1)  CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
ME	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	x =		
AMENDMENT	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =		
AM	Application Size Fe	e (37 CFR 1.16(s))						1			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR			
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
*1	* If the entry in col * If the "Highest N * If the "Highest Nu The "Highest Numb	umber Previous mber Previously	ly Paid F Paid For"	or" IN THIS SPA IN THIS SPACE is	CE is less than 2 s less than 3, ente	20, enter "20".	in column 1.				



#### UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

FILING or GRP ART APPLICATION FIL FEE REC'D ATTY.DOCKET.NO NUMBER 371(c) DATE UNIT TOT CLAIMS IND CLAIMS 01/21/2011 2617 12/929,408 545 WAN-0001/CON 20

> CONFIRMATION NO. 2646 UPDATED FILING RECEIPT

23353 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036



Date Mailed: 03/16/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

#### Applicant(s)

Tiejun Ronald Wang, La Jolla, CA; William E. Halal, Washington, DC; Tiehong Ann Wang, Arlington, VA; Ximing Wang, Beijing, CHINA;

#### **Assignment For Published Patent Application**

SellerBid, Inc., Arlington, VA

Power of Attorney: The patent practitioners associated with Customer Number 23353

#### Domestic Priority data as claimed by applicant

This application is a CON of 11/165,341 06/24/2005 PAT 7,899,492 which claims benefit of 60/588,358 07/16/2004

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <a href="http://www.uspto.gov">http://www.uspto.gov</a> for more information.)

If Required, Foreign Filing License Granted: 02/04/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/929.408** 

**Projected Publication Date:** 06/23/2011

Non-Publication Request: No Early Publication Request: No

\*\* SMALL ENTITY \*\*

page 1 of 3

#### **Title**

Methods, systems and apparatus for displaying the multimedia information from wireless communication networks

#### **Preliminary Class**

455

#### PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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page 2 of 3

the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

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#### **NOT GRANTED**

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/929,408	01/21/2011	Tiejun Ronald Wang	WAN-0001/CON	2646
	7590	-	EXAM	INER
LION BUILDI	NG		MILLER, B	RANDON J
WASHINGTO	REET N.W., SUITE 50 N, DC 20036	)1	ART UNIT	PAPER NUMBER
			2617	
			MAIL DATE	DELIVERY MODE
			05/06/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
0611 4-11 0	12/929,408	WANG ET AL.
Office Action Summary	Examiner	Art Unit
	BRANDON MILLER	2617
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION (6(a). In no event, however, may a reply be time rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	I. ely filed the mailing date of this communication. O (35 U.S.C. § 133).
Status		
<ul> <li>1) ☐ Responsive to communication(s) filed on 21 Ja</li> <li>2a) ☐ This action is FINAL. 2b) ☐ This</li> <li>3) ☐ Since this application is in condition for allowant closed in accordance with the practice under E</li> </ul>	action is non-final. nce except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-20 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-20 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or		
Application Papers		
9) The specification is objected to by the Examiner 10) The drawing(s) filed on 21 January 2011 is/are:  Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction  11) The oath or declaration is objected to by the Examiner	a)⊠ accepted or b)□ objected drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	ected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign  a) All b) Some * c) None of:  1. Certified copies of the priority documents  2. Certified copies of the priority documents  3. Copies of the certified copies of the prior  application from the International Bureau  * See the attached detailed Office action for a list of	s have been received. s have been received in Application ity documents have been received (PCT Rule 17.2(a)).	on No ad in this National Stage
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date	4)  Interview Summary Paper No(s)/Mail Da 5)  Notice of Informal P 6) Other:	ite

## **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

I. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a display format" in line 10 and "a display format" in line 13. It is unclear as to whether the display format in line 10 or the display format in line 13 is appropriate for the alternative display terminal. The limitations render the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2-7 are dependent on claim 1 and are rejected for indefiniteness under 35 U.S.C. 112, second paragraph for the same reasons given above.

Claim 8 recites "a display format" in line 10 and "a display format" in line 13. It is unclear as to whether the display format in line 10 or the display format in line 13 is appropriate for the alternative display terminal. The limitations render the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9-14 are dependent on claim 8 and are rejected for indefiniteness under 35 U.S.C. 112, second paragraph for the same reasons given above.

Application/Control Number: 12/929,408 Page 3

Art Unit: 2617

Claim 15 recites "a display format" in line 11 and "a display format" in line 13. It is unclear as to whether the display format in line 11 or the display format in line 13 is appropriate for the alternative display terminal. The limitations render the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16-20 are dependent on claim 15 and are rejected for indefiniteness under 35 U.S.C. 112, second paragraph for the same reasons given above.

# **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 2617

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

II. Claims 1-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 12-18, and 23-28 of U.S. Patent No. 7,899,492. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the 7,899,492 patent contain similar limitations on a method for processing signals to accommodate reproduction by an alternative display terminal.

For example:

Regarding claim 1 the 7,899,492 patent teaches a method for processing signals to accommodate reproduction by an alternative display terminal, the method comprising: receiving by a conversion module a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received by the conversion module from a cellular network communication that is sent to the mobile terminal and then received by the conversion module; processing by the conversion module the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing by the conversion module includes converting the video signal from a compression format appropriate for the mobile terminal to a

Art Unit: 2617

display format for the alternative display terminal that is different from the compression format, such that the converted video signal produced by the conversion module comprises a display format appropriate for driving the alternative display terminal; and providing the converted video signal from the conversion module to the alternative display terminal to accommodate displaying the video content by the alternative display terminal (see the 7,899,492 patent, claim 1).

Claims 2-20 are rejected for double patenting as well by claims 1-7, 12-18, and 23-28 of the 7,899,492 patent.

### Conclusion

III. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al. Pub. No. US 2007/0287498 A1.

Dawson et al. Pub. No.: US 2006/0001737 A1.

Takamatsuya Pub. No.: US 2005/0144461 A1.

Lee Pub. No.: US 2005/0085183 A1.

Acharya et al. Pub. No.: US 2005/0036509 A1.

Sie et al. Pub. No.: US 2004/0212731 A1.

Caspi et al. Pub. No.: US 2004/0177376 A1.

Kung Pub. No.: US 2003/0130009 A1.

Ruef et al. Pub. No.: US 2003/0104806 A1.

Lin Pub. No.: US 2002/0102998 A1.

Wilcox et al. Pub. No.: US 2002/0090980 A1.

Application/Control Number: 12/929,408 Page 6

Art Unit: 2617

Loveria, III Patent No.: US 7,360,085 B2.

Heinonen Patent No.: US 7,312,813 B1.

Umemura et al. Patent No.: US 7,257,202 B2.

Inselberg Patent No.: US 7,248,888 B2.

Rakib Patent No.: US 6,970,127 B2.

Kim Patent No.: US 6,873,853 B2.

Takeda Patent No.: US 6,781,635 B1.

Veijola et al. Patent Number: 6,128,509.

Tryding Patent Number: 5,880,732.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 12/929,408 Page 7

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandon J Miller/ Primary Examiner, Art Unit 2617

May 4, 2011

# Notice of References Cited Application/Control No. 12/929,408 Examiner BRANDON MILLER Applicant(s)/Patent Under Reexamination WANG ET AL. Page 1 of 2

# U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-7,899,492	03-2011	Wang et al.	455/556.1
*	В	US-2005/0144461	06-2005	Takamatsuya, Yoshihiro	713/182
*	С	US-2006/0001737	01-2006	Dawson et al.	348/014.08
*	D	US-2007/0287498	12-2007	Wang et al.	455/556.1
*	Е	US-2005/0085183	04-2005	Lee, Sang-Hyuk	455/003.01
*	F	US-2005/0036509	02-2005	Acharya et al.	370/466
*	G	US-2004/0212731	10-2004	Sie et al.	348/445
*	Н	US-2004/0177376	09-2004	Caspi et al.	725/081
*	I	US-2003/0130009	07-2003	Kung, Shao-Tsu	455/557
*	J	US-2003/0104806	06-2003	Ruef et al.	455/422
*	К	US-2002/0102998	08-2002	Lin, Ming-Hung	455/466
*	L	US-2002/0090980	07-2002	Wilcox et al.	455/566
*	М	US-7,360,085	04-2008	Loveria, III, Gregorio O.	713/165

## FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	Q					
	R					
	s					
	Т					

### **NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	w	
	х	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

**Notice of References Cited** 

Part of Paper No. 20110504

# Notice of References Cited Application/Control No. 12/929,408 Examiner BRANDON MILLER Applicant(s)/Patent Under Reexamination WANG ET AL. Page 2 of 2

# U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-7,312,813	12-2007	Heinonen, Pekka J.	348/158
*	В	US-7,257,202	08-2007	Umemura et al.	379/88.14
*	C	US-7,248,888	07-2007	Inselberg, Eric	455/517
*	D	US-6,970,127	11-2005	Rakib, Selim Shlomo	341/173
*	Е	US-6,873,853	03-2005	Kim, Hoe-Won	455/466
*	F	US-6,781,635	08-2004	Takeda, Genyo	348/552
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	J	US-			
	K	US-			
	L	US-			
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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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### **NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

**Notice of References Cited** 

Part of Paper No. 20110504

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	12929408	WANG ET AL.
	Examiner	Art Unit
	BRANDON MILLER	2617

<b>✓</b>	Rejected	-	Cancelled	N	Non-Elected	Α	Appeal
=	Allowed	÷	Restricted	ı	Interference	0	Objected

Claims	renumbered	in the same order	as presented by	applicant		☐ CPA	☐ T.E	D. 🗆	R.1.47	
CLAIM			DATE							
Final	Original	05/04/2011								
	1	<b>√</b>								
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	3	<b>√</b>								
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	19	<b>√</b>								
	20	✓								

U.S. Patent and Trademark Office Part of Paper No. :

# Search Notes

	Applicant(s)/Patent Under Reexamination
12929408	WANG ET AL.

ExaminerArt UnitBRANDON MILLER2617

SEARCHED							
Class	Subclass	Date	Examiner				
455	500,3.06,414.4,566,557,556.1,66.1,414.1,418-420	5/4/11	BJM				
375	240.01,240.02,240.18	5/4/11	BJM				
348	14.07,14.12,14.13,384.1,441	5/4/11	BJM				

SEARCH NOTES						
Search Notes	Date	Examiner				
East (US-PGPUB, USPAT, derwent, EPO,JPO)	5/4/11	BJM				
East-Text - keyword and keyword/cl. (see search history)	5/4/11	BJM				
Inventor Search. Double patenting checked.	5/4/11	BJM				

	INTERFERENCE SEA	RCH	
Class	Subclass	Date	Examiner

1	



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

# **BIB DATA SHEET**

# **CONFIRMATION NO. 2646**

SERIAL NUM	IBER	FILING OF			CLASS	GR	OUP ART	UNIT	ATTO	ORNEY DOCKET
12/929,40	8	01/21/2	_		455		2617		w,	AN-0001/CON
		RUL	E							
William E Tiehong <i>i</i>	onald W E. Halal, Ann Wa Jang, Be	ang, La Jolla Washington, ng, Arlington eijing, CHINA	DC; , <b>VA</b> ; .;	*						
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TITLE										
Methods, networks		is and appara	atus for dis	splayin	g the multimedia	infor	mation fro	m wirele	ess co	mmunication
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							☐ Other			
							☐ Credit	•		

BIB (Rev. 05/07).

# **EAST Search History**

# **EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	46	(375/240.01.ccls. or 375/240.02.ccls. or 375/240.18.ccls. or 348/14.07.ccls. or 348/14.12.ccls. or 348/384.1.ccls. or 348/441.ccls.) and ((covert\$3, conversion) near4 (compress\$3) near4 format)	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:22
L3	9	(455/500.cds. or 455/3.06.cds. or 455/414.4.cds. or 455/566.cds. or 455/557.cds. or 455/556.1 or 455/66.1.cds. or 455/414.1.cds.) and ((covert\$3, conversion) near4 (compress\$3) near4 format)	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:25
L4	3	(455/418-420.ccls.) and ((covert\$3, conversion) near4 (compression, compress\$3) near4 format)	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:25

L5	O	(mobile, portable, wireless, cellular, "pda", "laptop") same display same (remote or alternative) same ((covert\$3, conversion) near4 (compress\$3) near4 format)	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:27
L6	17	(mobile, portable, wireless, cellular, "pda", "laptop") same display same ((covert\$3, conversion) near4 (compression, compress\$3) near4 format)	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:28
L7	1	(mobile, portable, wireless, cellular, "pda", "laptop") same display same ((covert\$3, conversion) near4 (compress\$3) near4 format)	EPO; JPO	OR	ON	2011/05/02 21:28
L10	23	(mobile, portable, wireless, cellular, "pda", "laptop") near6 (display\$3 near (remote or alternative))	EPO; JPO	OR	ON	2011/05/02 21:30
L11	14	(mobile, portable, wireless, cellular, "pda", "laptop") same (covert\$3 or conversion) same format same (display\$3 near (remote or alternative))	US-PGPUB; USPAT; DERWENT	OR	ON	2011/05/02 21:30

L14	183	wireless, cellular,	US-PGPUB; USPAT; DERWENT	OR		2011/05/02 21:56
L15	37	wireless, cellular,	US-PGPUB; USPAT; DERWENT	OR	3	2011/05/02 21:57

# **EAST Search History (Interference)**

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Receipt date: 01/21/2011

PTO/SB/08a (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
B. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Substitute for form 1449/PTO				Complete if Known			
				Application Number	Not Yet Assigned		
11	<b>IFORMATION</b>	1 DI	SCLOSURE	Filing Date	Concurrently Herewith		
S	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Teijun Wang		
				Art Unit	N/A		
	(Use as many sheets as necessary)			Examiner Name	Not Yet Assigned		
Sheet	1	of	4	Attorney Docket Number	WAN-0001/CON		

	U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> ( if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
/BM/	AA**	US-6,546,263 B1	04-08-2003	Petty et al.				
8	AB*	US-2002/0094826	07-18-2002	Lee				
0000	AC*	US-2003/0054794	03-20-2003	Zhang				
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Examiner Cit	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,	
Initials*	No.	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
_/BM/	ВА	EA-1429511	06-2004	BAIS et al.		
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Examiner	/Drandon Millar/	Date	05/00/00/1
Signature	/Brandon Miller/	Considered	05/02/2011

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. \*\* CITE NO.: Those document(s) which are marked with an double asterisk (\*) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filling date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="https://www.usplo.gov">www.usplo.gov</a> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08a (07-09)
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Sub	Substitute for form 1449/PTO			Complete if Known		
				Application Number	Not Yet Assigned	
l IN	<b>IFORMATION</b>	N DI	SCLOSURE	Filing Date	Concurrently Herewith	
S	STATEMENT BY APPLICANT			First Named Inventor	Teijun Wang	
				Art Unit	N/A	
	(Use as many sheets as necessary)		Examiner Name	Not Yet Assigned		
Sheet	2	of	4	Attorney Docket Number	WAN-0001/CON	

			U.S. PA	TENT DOCUMENTS	
		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
		MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	
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Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,		
Initials*	No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	T⁵	
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Signature	/Brandon Miller/	Considered	05/02/2011

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Receipt date: 01/21/2011 12929408 - GAU: 2617

PTO/SB/08a (07-09)
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	Complete # Known
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Sul	Substitute for form 1449/PTO		Complete if Known		
				Application Number	Not Yet Assigned
	NFORMATIO	N DIS	SCLOSURE	Filing Date	Concurrently Herewith
l s	STATEMENT BY APPLICANT			First Named Inventor	Teijun Wang
				Art Unit	N/A
	(Use as many sheets as necess ary)		Examiner Name	Not Yet Assigned	
Sheet	3	of	4	Attorney Docket Number	WAN-0001/CON

			U.S. PA	TENT DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Initials*	No. <sup>1</sup>	Number-Kind Code <sup>2</sup> ( if known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
/BM/	AM1*	US-6,128,509	10-03-2000	Veijola et al.	
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Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,	
Initials*	No.1	Country Code <sup>3</sup> -Number <sup>A</sup> -Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. \*\* CITE NO.: Those document(s) which are marked with an double asterisk (\*\*) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Receipt date: 01/21/2011 12929408 - GAU: 2617

PTO/SB/08b (07-09)

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U.S. Patent and Trad emark Office; U.S. DEPARTMENT OF COMMERCE

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Substitu	Substitute for form 1449/PTO			Complete if Known		
				Application Number	Not Yet Assigned	
INF	ORMATIC	ON DIS	CLOSURE	Filing Date	Concurrently Herewith	
ST	STATEMENT BY APPLICANT			First Named Inventor	Teijun Wang	
				Art Unit	N/A	
	(Use as many sheets as necess ary)		Examiner Name	Not Yet Assigned		
Sheet	4	of	4	Attorney Docket Number	WAN-0001/CON	

No.1	the item (book, magazine, journ al, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CA	Notification of Transmittal of the International Search Report and the Written Opinion of the International Searching Authority, or the Declaration; International Application No: PCT/US05/25284; Filing Date: July 15, 2005.	
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	CA	CA International Searching Authority, or the Declaration; International Application No:

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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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# Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Docket Number (Optional) TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING **REJECTION OVER A "PRIOR" PATENT** WAN-0001/CON Tiejun Wang et al. In re Application of: Application No.: 12/929,408-Conf. #2646 Filed: January 21, 2011 METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA For: INFORMATION FROM WIRELESS COMMUNICATION NETWORKS 100 percent interest in the The owner\*, SellerBid, Inc. , of instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent No. as the term of said prior patent is defined in 35 U.S.C. 154 and 173, and as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns. In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent expires for failure to pay a maintenance fee; is held unenforceable: is found invalid by a court of competent jurisdiction; is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; has all claims canceled by a reexamination certificate; is reissued: or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer. Check either box 1 or 2 below, if appropriate. For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. The undersigned is an attorney of agent of record. Reg. No. May 17, 2011 Date Christopher M. Tobin Typed or printed name (202) 955-3750 Telephone Number Terminal disclaimer fee under 37 CFR 1.20(d) is included. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. \*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324. 05/18/2011 LNGUYEN1 00000009 180013 12929408 70.00 DA 01 FC:2814

Docket No. DMENT TRANSMITTAL LETTER WAN-0001/CON Art Unit Application No. Filing Date Examiner 2617 January 21, 2011 B. J. Miller 12/929,408-Conf. #2646 Applicant(s): Tiejun Wang et al. METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA Invention: INFORMATION FROM WIRELESS COMMUNICATION NETWORKS TO THE COMMISSIONER FOR PATENTS Transmitted herewith is an amendment in the above-identified application. The fee has been calculated and is transmitted as shown below. **CLAIMS AS AMENDED** Claims Highest Number Number Remaining Previously Extra Claims After <u>Amendment</u> Present Rate Paid 20 26.00 0.00 **Total Claims** 20 х Independent 0.00 3 0 110.00 3 Х Claims Multiple Dependent Claims (check if applicable) 70.00 Other fee (please specify): Statutory Disclaimer TOTAL ADDITIONAL FEE FOR THIS AMENDMENT: 70.00 x Small Entity Large Entity No additional fee is required for this amendment. x | Please charge Deposit Account No. 18-0013 in the amount of \$ 70.00 to cover the filing fee is enclosed. A check in the amount of \$ Payment by credit card. Form PTO-2038 is attached. 18-0013 x The Director is hereby authorized to charge and credit Deposit Account No. as described below. A duplicate copy of this sheet is enclosed. x | Credit any overpayment. Charge any additional filing or application processing fees required under 37 CFR 1.16 and 1.17. May 17, 2011 Dated: Christopher M. Tobig Attorney/Agent Reg. No.: 40,290 RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501

(202) 955-3750

Washington, DC 20036



Docket No.: WAN-0001/CON

(PATENT)

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Tiejun Wang et al.

Application No.: 12/929,408

Confirmation No.: 2646

Filed: January 21, 2011

Art Unit: 2617

For: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Examiner: B. J. Miller

# AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION UNDER 37 C.F.R. 1.111

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

## **INTRODUCTORY COMMENTS**

In response to the Office Action dated May 6, 2011, please amend the above-identified U.S. patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Reply to Office Action of May 6, 2011

**AMENDMENTS TO THE CLAIMS** 

1. (Currently Amended) A method for processing signals to accommodate reproduction

by an alternative display terminal, the method comprising:

receiving by a conversion module a video signal appropriate for displaying a video content

on a mobile terminal, the video signal being received by the conversion module from

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a cellular network communication that is sent to the mobile terminal and then

received by the conversion module;

processing by the conversion module the video signal to produce a converted video signal

for use by the alternative display terminal, wherein processing by the conversion

module includes converting the video signal from a compression format appropriate

for the mobile terminal to a display format for the alternative display terminal that is

different from the compression format, such that the converted video signal produced

by the conversion module comprises a the display format appropriate for driving the

alternative display terminal; and

providing the converted video signal from the conversion module to the alternative display

terminal to accommodate displaying the video content by the alternative display

terminal.

2. (Original) The method of claim 1, wherein the mobile terminal is a cellular phone.

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3. (Original) The method of claim 1, wherein the mobile terminal is a personal digital

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assistant.

4. (Original) The method of claim 1, wherein receiving the video signal, processing the

video to produce the converted video signal, and providing the converted video signal to the

alternative display terminal is performed using power from a source that differs from the internal

power supply of the mobile terminal.

5. (Original) The method of claim 1, wherein the conversion module resides in the

alternative display terminal.

6. (Original) The method of claim 1, wherein the video signal received is part of a

multimedia signal that is received in the cellular network communication.

7. (Original) The method of claim 1, wherein the alternative display terminal is an external

display terminal.

8. (Currently Amended) A system for processing signals to accommodate reproduction

by an alternative display terminal, the system comprising:

means for receiving a video signal appropriate for displaying a video content on a mobile

terminal, the video signal being received from a cellular network communication that

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is sent to the mobile terminal and then received by the means for receiving the video

signal;

means for processing the video signal to produce a converted video signal for use by the

alternative display terminal, wherein processing by the means for processing the

video signal includes converting the video signal from a compression format

appropriate for the mobile terminal to a display format for the alternative display

terminal that is different from the compression format, such that the converted video

signal produced by the means for processing the video signal comprises-a the display

format-appropriate for-driving the alternative display terminal; and

means for providing the converted video signal to the alternative display terminal to

accommodate displaying the video content by the alternative display terminal.

9. (Original) The system of claim 8, wherein the mobile terminal is a cellular phone.

10. (Original) The system of claim 8, wherein the mobile terminal is a personal digital

assistant.

11. (Original) The system of claim 8, wherein receiving the video signal, processing the

video to produce the converted video signal, and providing the converted video signal to the

alternative display terminal is performed using power from a source that differs from the internal

power supply of the mobile terminal.

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12. (Original) The system of claim 8, wherein the means for receiving the video signal, means for processing the video signal to produce the converted video signal, and means for providing the converted video signal to the display terminal reside in a conversion module within the alternative display terminal.

- 13. (Original) The system of claim 8, wherein the video signal received is part of a multimedia signal that is received in the cellular network communication.
- 14. (Original) The system of claim 8, wherein the alternative display terminal is an external display terminal.
- 15. (Currently Amended) An apparatus for processing signals to accommodate reproduction by an alternative display terminal, the apparatus comprising:
  - an interface module, which receives a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the interface module:
  - a signal conversion module, in operative communication with the interface module, which processes the video signal to produce a converted signal for use by the alternative display terminal, wherein processing by the signal conversion module includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from

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Reply to Office Action of May 6, 2011

the compression format, such that the converted video signal comprises-a the display

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format-appropriate for-driving the alternative display terminal; and

a device interface module, in operative communication with the signal conversion module,

which provides the converted video signal to the alternative display terminal to

accommodate displaying the video content by the alternative display terminal.

16. (Original) The apparatus of claim 15, wherein the mobile terminal is a cellular phone.

17. (Original) The apparatus of claim 15, wherein the mobile terminal is a personal digital

assistant.

18. (Original) The apparatus of claim 15, wherein power to receive the video signal, process

the video to produce the converted video signal, and provide the converted video signal to the

alternative display terminal is from a source that differs from the internal power supply of the

mobile terminal.

19. (Original) The apparatus of claim 15, wherein the apparatus resides in the alternative

display terminal.

20. (Original) The apparatus of claim 15, wherein the video signal received is part of a

multimedia signal that is received in the cellular network communication.

# **REMARKS**

This Amendment is responsive to the Office Action dated May 6, 2011 and received in this application. Claims 1, 8 and 15 have been amended. These amendments add no new matter. Applicant respectfully requests reconsideration and allowance of the pending claims.

Claims 1-20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Specifically, it was indicated that the indefinite article "a signal format" appeared in multiple instances in the claim. Applicant appreciates the Examiner's attention to the claims in this regard and has amended the claims to clearly recite literal antecedent basis for "the signal format for the alternative display terminal".

Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-20 under 35 U.S.C. 112, second paragraph.

Claims 1-20 were rejected under the grounds of obviousness type double patenting over certain claims found in U.S. Pat. No. 7,899,492.

To expedite prosecution, Applicant has concurrently filed herewith a terminal disclaimer with respect to the '492 Patent.

Accordingly, Applicant submits that these grounds of rejection are moot, and respectfully requests reconsideration and withdrawal thereof.

Application No. 12/929,408 Amendment dated May 17, 2011 Reply to Office Action of May 6, 2011 Docket No.: WAN-0001/CON

Applicant submits that all of the pending claims are in condition for allowance, and requests early and favorable action in this regard. The Examiner is invited to contact the undersigned representative Christopher Tobin at (202) 955-8779 if it is believed that such contact could further the prosecution of this application.

Dated: May 17, 2011

Respectfully/submitted,

Christopher M. Tobin

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC Correspondence Customer Number: 23353

Attorney for Applicant

PTO/SB/17 (10-08)

Approved for use through 09/30/2010. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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	42/00/20		Complete if Known							
Εποτιν Fees pursuant to the Consolida	ve on 12/08/20 ited Appropris	. 4818).	Application Nun	nber	12/929,408-Conf. #2646					
FEE TRA	ANSI		Filing Date		January 21, 2011					
			First Named Inv	rentor	Tiejun Wang					
FOr	FY 20		Examiner Name		B. J. Miller					
X Applicant claims small	l entity status		Art Unit		2617					
TOTAL AMOUNT OF PAYME	NT		Attorney Docket	WAN-0001/C	ON	·				
METHOD OF PAYMENT (check all that apply)										
Check Credit C										
Check Credit Card Money Order None Other (please identify):  Deposit Account Deposit Account Number: 18-0013  Deposit Account Name: Rader, Fishman & Grauer PLLC										
For the above-iden	tified depos	it account, the Di	rector is	hereby authorize	ed to: (che	ck all that apply	)			
Charge fee(s)								t for the filing fee		
Charge any a	dditional fe	e(s) or underpayr 6 and 1.17	nents o	f x Credit	any overp	payments				
FEE CALCULATION	<i>37</i>	o and 1.17								
1. BASIC FILING, SEARCI	H. AND EX	AMINATION FEE	s				,			
		NG FEES		ARCH FEES	EXAMI	NATION FEES	3			
Application Type	Fee (\$)	Small Entity Fee (\$)	Fee (\$	Small Entity ) Fee (\$)	Fee (\$)	Small Entity Fee (\$)	F	Fees Paid (\$)		
Utility	330	165	540	270	220	110	_			
Design	220	110	100	50	140	70		· · · · · · · · · · · · · · · · · · ·		
Plant	220	110	330	165	170	85				
Reissue	330	165	540	270	650	325				
Provisional	220	110	0	0	0	0				
2. EXCESS CLAIM FEES								Small Entity		
Fee Description						Fee	<u>(\$)</u>	Fee (\$)		
Each claim over 20 (includ	-					-	2	26		
Each independent claim ov		ding Reissues)				22		110		
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3. APPLICATION SIZE FEI	E									
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listings under 37 CFR sheets or fraction there					or small e	entity) for each a	additio	mai 50		
					tion there	of Fee (\$)		Fee Paid (\$)		
Total Sheets         Extra Sheets         Number of each additional 50 or fraction thereof         Fee (\$)           100 =										
4. OTHER FEE(\$)										
Non-English Specification, \$130 fee (no small entity discount)										
Other (e.g., late filing surcharge): 2814 Statutory Disclaimer 70.00							70.00			
SUBMITTED BY	7.0									
Signature	777	/\/\		Registration No.	40.290	Telephone	(20:	2) 955-3750		

Date

May 17, 2011

Name (Print/Type)

Christopher M./Tobin

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875							Application or Docket Number 12/929,408			ing Date 21/2011	To be Mailed
APPLICATION AS FILED — PART I  (Column 1)  (Column 2)  SMALL ENTITY  OR  SMALL ENTITY											
	FOR NUMBER FILED NUMBER EXTRA				UMBER EXTRA		RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)
	BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A	۱	N/A		1	N/A	
	SEARCH FEE (37 CFR 1.16(k), (i), o	or (m))	N/A		N/A		N/A			N/A	
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A	
	TAL CLAIMS CFR 1.16(i))		mir	us 20 = *			X \$ =		OR	X \$ =	
	EPENDENT CLAIM CFR 1.16(h))	1S	m	inus 3 = *			X \$ =			X \$ =	
If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).											
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	APP	(Column 1)	AMENL	(Column 2)	(Column 3)		SMAL	L ENTITY	OR		ER THAN ALL ENTITY
AMENDMENT	05/17/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
)ME	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		X \$26 =	0	OR	X \$ =	
EN	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0		X \$110 =	0	OR	X \$ =	
AM	Application S	ize Fee (37 CFR 1	.16(s))								
	FIRST PRESEN	NTATION OF MULTIP	LE DEPEN	DENT CLAIM (37 C	FR 1.16(j))				OR		
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	
		(Column 1)		(Column 2)	(Column 3)						
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
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IEN	Application S	ize Fee (37 CFR 1	.16(s))						Į		
AM	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR		
* If	the entry in column	1 is less than the e	entry in col	umn 2 write "0" i	in column 3	• '	TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
** If	* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Application Number	Application/Co	F	Applicant(s)/Patent under Reexamination							
	12/929,408	V	VANG ET AL.							
Document Code - DISQ		Internal Document – DO NOT MAIL								
TERMINAL DISCLAIMER	⊠ APPROV	ED	☐ DISAPPROVED							
Date Filed : 5/17/11	to a Te	t is subject erminal aimer								
Approved/Disapproved by:  Janice Ford										

U.S. Patent and Trademark Office



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Sox 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NUMBER 12/929,408

FILING OR 371(C) DATE 01/21/2011

FIRST NAMED APPLICANT Tiejun Ronald Wang

ATTY. DOCKET NO./TITLE WAN-0001/CON

**CONFIRMATION NO. 2646** 

**PUBLICATION NOTICE** 

23353 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036



Title: Methods, systems and apparatus for displaying the multimedia information from wireless communication networks

Publication No.US-2011-0149148-A1 Publication Date: 06/23/2011

## NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seg. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

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PATENT APPLICATION FEE DETERMINATION RECORD  Substitute for Form PTO-875							Application or Docket Number 12/929,408			ing Date 21/2011	To be Mailed	
APPLICATION AS FILED - PART I (Column 1) (Column 2)											OTHER THAN	
	FOR NUMBER FILED NUMBER EXTRA				<u> </u>	Γ	RATE (\$)	FEE (\$)	Ī	RATE (\$)	FEE (\$)	
BASIC FEE (37 CFR 1.16(a), (b), or (c))			N/A		N/A	1	N/A		1	N/A		
	SEARCH FEE (37 CFR 1.16(k), (i),	or (m))	N/A		N/A		N/A			N/A		
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A		
	TAL CLAIMS CFR 1.16(i))		mir	ius 20 = *			X \$ =		OR	X \$ =		
	EPENDENT CLAIM CFR 1.16(h))	IS	m	inus 3 = *			X \$ =			X \$ =		
If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).												
	MULTIPLE DEPEN	IDENT CLAIM PR	ESENT (3	7 CFR 1.16(j))								
* If 1	the difference in colu	umn 1 is less than	zero, ente	r "0" in column 2.			TOTAL		]	TOTAL		
	APP	(Column 1)	AMEND	DED - PART II (Column 2)	(Column 3)		OTHER THAN SMALL ENTITY OR SMALL ENTITY					
AMENDMENT	07/28/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
ME	Total (37 CFR 1.16(i))	* 21	Minus	<del>**</del> 20	<b>=</b> 1		X \$26 =	26	OR	X \$ =		
Z.	Independent (37 CFR 1.16(h))	* 4	Minus	***3	= 1		X \$110 =	110	OR	X \$ =		
ΔM	Application S	ze Fee (37 CFR 1	.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
							TOTAL ADD'L FEE	136	OR	TOTAL ADD'L FEE		
		(Column 1)		(Column 2)	(Column 3)				_			
⊥		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
EN	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =		OR	X \$ =		
AMENDMENT	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		OR	X \$ =		
EN	Application Si	ze Fee (37 CFR 1	.16(s))									
ΑĀ	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
							TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
** If *** I	* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".  The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

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#### NOTICE OF ALLOWANCE AND FEE(S) DUE

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036 EXAMINER

MILLER, BRANDON J

ART UNIT PAPER NUMBER

2617

DATE MAILED: 08/10/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/929,408	01/21/2011	Tiejun Ronald Wang	WAN-0001/CON	2646

TITLE OF INVENTION: METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	11/10/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

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If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) have its own certificate of mailing or transmission. 23353 08/10/2011 Certificate of Mailing or Transmission RADER FISHMAN & GRAUER PLLC I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 12/929,408 01/21/2011 Tiejun Ronald Wang WAN-0001/CON 2646 TITLE OF INVENTION: METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE DATE DUE APPLN, TYPE SMALL ENTITY TOTAL FEE(S) DUE 11/10/2011 YES \$755 \$300 \$0 \$1055 nonprovisional CLASS-SUBCLASS **EXAMINER** ART UNIT MILLER, BRANDON J 455-556100 2617 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE Please check the appropriate assignee category or categories (will not be printed on the patent):  $\square$  Individual  $\square$  Corporation or other private group entity  $\square$  Government 4a. The following fee(s) are submitted: 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) lssue Fee A check is enclosed. ☐ Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this fo Advance Order - # of Copies \_ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)

an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
12/929,408	01/21/2011	WAN-0001/CON	2646				
23353 75	90 08/10/2011	EXAMINER					
	AN & GRAUER PLI	LC .	MILLER, BRANDON J				
LION BUILDING 1233 20TH STREI	ET N.W., SUITE 501	ART UNIT PAPER NUMBER					
WASHINGTON, I		2617					

DATE MAILED: 08/10/2011

#### Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

#### **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)						
Alaka a dallamakilika	12/929,408	WANG ET AL.						
Notice of Allowability	Examiner	Art Unit						
	BRANDON MILLER	2617						
The MAILING DATE of this communication appe	gars on the cover sheet with the co	orraenondanca addraee						
All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication IGHTS. This application is subject to	olication. If not included will be mailed in due course. <b>THIS</b>						
1. This communication is responsive to 5/17/2011.								
2. 🔀 The allowed claim(s) is/are <u>1-21</u> .								
<ol> <li>Acknowledgment is made of a claim for foreign priority ur</li> <li>a) □All b) □ Some*c) □ None of the:</li> </ol>	nder 35 U.S.C. § 119(a)-(d) or (f).							
<ol> <li>Certified copies of the priority documents have</li> </ol>	been received.							
2.   Certified copies of the priority documents have	been received in Application No	·						
3. Copies of the certified copies of the priority do	cuments have been received in this r	national stage application from the						
International Bureau (PCT Rule 17.2(a)).								
* Certified copies not received:								
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.								
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give								
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.							
(a) $\square$ including changes required by the Notice of Draftspers	on's Patent Drawing Review ( PTO-	948) attached						
1) ☐hereto or 2) ☐ to Paper No./Mail Date								
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the O	ffice action of						
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t								
DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT	sit of BIOLOGICAL MATERIAL n	nust be submitted. Note the						
Attachment(s)								
1. Notice of References Cited (PTO-892)	5. Notice of Informal P	* *						
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary Paper No./Mail Dat	ė						
<ol> <li>Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date</li> </ol>	7. 🛛 Examiner's Amendn	nent/Comment						
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. 🛛 Examiner's Stateme	8. X Examiner's Statement of Reasons for Allowance						
	9.							
/Brandon J Miller/	/George Eng/	/George Eng/						
Art Unit 2617	Supervisory Patent Exa	Supervisory Patent Examiner, Art Unit 2617						

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)

Notice of Allowability

Part of Paper No./Mail Date 20110718

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	12929408	WANG ET AL.
	Examiner	Art Unit
	BRANDON MILLER	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	0	Objected

☐ Claims	renumbered	in the same	order as pre		□ СРА	⊠ T.I	D. 🗆	R.1.47							
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Final	Original	05/04/2011	07/19/2011												
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U.S. Patent and Trademark Office Part of Paper No.: 20110718

## Issue Classification



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	Application/Control No.	Applicant(s)/Patent Under Reexamination						
	12929408	WANG ET AL.						
	Examiner	Art Unit						
	BRANDON MILLER	2617						

ORIGINAL							INTERNATIONAL CLASSIF							FICATION		
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	Claims renumbered in the same order as presented by applicant					pplicant		СР	'A 🗵	] T.D.		R.1.	47		
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/BRANDON MILLER/ Art Unit 2617	07-19-2011	Total Claims Allowed: 21			
(Assistant Examiner)	(Date)				
/GEORGE ENG/ Supervisory Patent Examiner.Art Unit 2617	07/28/2011	O.G. Print Claim(s)	O.G. Print Figure		
(Primary Examiner)	(Date)	1	1		

U.S. Patent and Trademark Office Part of Paper No. 20110718

## Search Notes



Application/Control No.	Applicant(s)/Patent Under Reexamination
12929408	WANG ET AL.
Examiner	Art Unit

BRANDON MILLER

2617

#### **SEARCHED**

Class	Subclass	Date	Examiner
455	500,3.06,414.4,566,557,556.1,66.1,414.1,418-420	5/4/11	BJM
375	240.01,240.02,240.18	5/4/11	BJM
348	14.07,14.12,14.13,384.1,441	5/4/11	BJM
455	500,3.06,414.4,566,557,556.1,66.1,414.1,418-420	7/19/2011	BJM
375	240.01,240.02,240.18	7/19/2011	BJM
348	14.07,14.12,14.13,384.1,441	7/19/2011	BJM

# SEARCH NOTES

Search Notes	Date	Examiner
East (US-PGPUB, USPAT, derwent, EPO,JPO)	5/4/11	BJM
East-Text - keyword and keyword/cl. (see search history)	5/4/11	BJM
Inventor Search. Double patenting checked.	5/4/11	BJM
East (US-PGPUB, USPAT, derwent, EPO,JPO)	7/19/2011	BJM
East-Text - keyword and keyword/cl. (see search history)	7/19/2011	BJM
Inventor Search. Double patenting checked.	7/19/2011	BJM

INTERFERENCE SEARCH							
Class	Subclass	Date	Examiner				
East-Text	keyword search (see search history)	7/19/2011	BJM				

Application/Control Number: 12/929,408 Page 2

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#### **DETAILED ACTION**

#### Response to Amendment

#### **EXAMINER'S AMENDMENT**

I. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Christopher M. Tobin on July 13, 2011.

The application has been amended as follows:

Please amend claim 1 as follows:

1. (Currently Amended) A method for processing signals to accommodate reproduction by an alternative display terminal, the method comprising: receiving, by a conversion [[module]] device, a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received by the conversion [[module]] device from a cellular network communication that is sent to the mobile terminal and then received by the conversion [[module]] device, the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing by the conversion [[module]] device includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal produced by the conversion [[module]] device comprises the display format for the

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alternative display terminal; and providing the converted video signal from the conversion

[[module]] device to the alternative display terminal to accommodate displaying the video

content by the alternative display terminal.

Please amend claim 4 as follows:

4. (Currently Amended) The method of claim 1, wherein receiving the video signal,

Page 3

processing the video signal to produce the converted video signal, and providing the converted

video signal to the alternative display terminal is performed using power from a source that

differs from [[the]] an internal power supply of the mobile terminal.

Please amend claim 5 as follows:

5. (Currently Amended) The method of claim 1, wherein the conversion [[module]]

device resides in the alternative display terminal.

Please amend claim 11 as follows:

11. (Currently Amended) The system of claim 8, wherein receiving the video signal,

processing the video signal to produce the converted video signal, and providing the converted

video signal to the alternative display terminal is performed using power form a source that

differs from [[the]] an internal power supply of the mobile terminal.

Please amend claim 15 as follows:

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15. (Currently Amended) An apparatus for processing signals to accommodate reproduction by an alternative display terminal, the apparatus comprising: an interface [[module]], which receives a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the interface [[module]]; a signal conversion [[module]] hardware component, in operative communication with the interface [[module]], which processes the video signal to produce a converted signal for use by the alternative display terminal, wherein processing by the signal conversion [[module]] hardware component includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal; and a device interface [[module]], in operative communication with the signal conversion [[module]] hardware component, which provides the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

Please amend claim 18 as follows:

18. (Currently Amended) The apparatus of claim 15, wherein power to receive the video signal, process the video signal to produce the converted video signal, and provide the converted video signal to the alternative display terminal is from a source that differs from [[the]] an internal power supply of the mobile terminal

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Please add new claim 21 as follows:

21. (New) A computer memory having program code stored thereon for processing signals to accommodate reproduction by an alternative display terminal, the program code

executable by a processor to perform operations comprising:

receiving a video signal appropriate for displaying a video content on a mobile terminal,

the video signal being received from a cellular network communication that is

Page 5

sent to the mobile terminal;

processing the video signal to produce a converted video signal for use by the alternative

display terminal, wherein processing includes converting the video signal from a

compression format appropriate for the mobile terminal to a display format for the

alternative display terminal that is different from the compression format, such

that the converted video signal comprises the display format for the alternative

display terminal; and

providing the converted video signal to the alternative display terminal to accommodate

displaying the video content by the alternative display terminal.

#### Allowance

II. Claims 1-21 are allowed.

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#### Reasons for Allowance

III. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed because the prior art does not disclose receiving, by a conversion device, a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received by the conversion device from a cellular network communication that is sent to the mobile terminal and then received by the conversion device; processing, by the conversion device, the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing by the conversion device includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal produced by the conversion device comprises the display format for the alternative display terminal; and providing the converted video signal from the conversion device to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

Claims 2-7 are allowed based on their dependence on allowed independent claim 1.

Claim 8 is allowed because the prior art does not disclose means for receiving a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the means for receiving the video signal; means for processing the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing by the means for processing the video signal includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative

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display terminal that is different from the compression format, such that the converted video signal produced by the means for processing the video signal comprises the display format for the alternative display terminal; and means for providing the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

Page 7

Claims 9-14 are allowed based on their dependence on allowed independent claim 8.

Claim 15 is allowed because the prior art does not disclose an interface, which receives a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the interface; a signal conversion hardware component, in operative communication with the interface, which processes the video signal to produce a converted signal for use by the alternative display terminal, wherein processing by the signal conversion hardware component includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal; and a device interface, in operative communication with the signal conversion hardware component, which provides the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

Claims 16-20 are allowed based on their dependence on allowed independent claim 15.

Claim 21 is allowed because the prior art does not disclose receiving a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received

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from a cellular network communication that is sent to the mobile terminal; processing the video signal to produce a converted video signal for use by the alternative display terminal, wherein processing includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal; and providing the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

Page 8

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

IV. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 12/929,408 Page 9

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 19, 2011

/Brandon J Miller/ Art Unit 2617

> /George Eng/ Supervisory Patent Examiner, Art Unit 2617



#### PART B-FEE(S) TRANSMITTAL

PART B -FEE(S) To Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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23353 7590 08/10/2011 RADER, FISHMAN & GRAUER PLLC 1233 20th Street, N.W. Suite 501 Washington, DC 20036					ttal. This certificate cannot be iditional paper, such as an as rtificate of mailing or transm Certificate of Mailing o that this Fee(s) Transmittal ervice with sufficient postage	r Transmission is being deposited with the Uni- for first class mail in an envel- address above, or being facsing	ing nust ited lope
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APPLICATION NO.	FILING DATE	FIRST NAI	MED INVENTOR		ATTORNEY DOCKET N	O. CONFIRMATION NO.	
12/929,408	01/21/2011	Tie	jun Wang		WAN-0001/CON	2646	
TITLE OF INVENTION		STEMS AND APPARATU ION NETWORKS	JS FOR DISPLAY	ING THE	MULTIMEDIA INFORMA	TION FROM WIRELESS	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATIO	N FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	yes	\$755.00	\$300.00	)	\$1,064.00	11/10/2011	
EXAM	INER	ART UNIT	CLASS-SUBO	CLASS			
B. J. M	filler	2617	455-5561	00			
Correspondence "Fee Address" in form PTO/SB/47 Use of a Custom 3. ASSIGNEE NAME A PLEASE NOTE: Unle	i). espondence address (of Address form PTO/SB/I dication (or "Fee Addres; Rev 03-02 or more receiver Number is required ND RESIDENCE DAT as an assignee is identifit	r Change of (22) attached. (2) the nar a register up to 2 rename is lix	will appear on the	3 registers attively, (having as at) and the meys or age printed.  at or type) patent. If a	a member 2 names of ents. If no 3	ishman & Grauer PLLC	
(A) NAME OF ASSIGN	IEE	(	(B) RESIDENCE: (	CITY and	STATE OR COUNTRY)		
SellerBid, Inc.			Arlington, Virgi	nia			
Please check the appropriate	e assignee category or categ	ories (will not be printed on th	ne patent):	ndividual	X Corporation or other priv	ate group entity Government	nt
4a. The following fee(s)	are enclosed:		. Payment of Fee(s	-			
x Issue Fee		A cl	neck in the amount	of the fee(	s) is enclosed.		
x Publication Fee (	No small entity discoun	t permitted) Pays	ment by credit card	. Form PT	O-2038 is attached.		
X Advance Order -	# of Copies		Director is hereby osit Account Numb		by charge the required fee( 18-0013	s), or credit any overpayment,	to
	ms SMALL ENTITY sta	atus. See 37 CFR 1.27.			· · · · · · · · · · · · · · · · · · ·	Y status. See 37 CFR 1.27(g)(2	2).
NOTE: The Issue Fee and I	Publication Fee (if require	Issue Fee and Publication Feed) vill not be accepted from Pagent and Trademark Office	e (if any) or to re-ap n anyone other than	ply any pre the applica	viously paid issue fee to the a nt; a registered attorney or ag	pplication identified above. ent; or the assignee or other par	ty in
Authorized Signatur	e	1/1/2	2		DateS	September 13, 2011	-
Typed or printed nar	me	Christopher M. Tobir	n		Registration No.	40,290	
		L		09/	14/2011 SMOHAMM1 000	00050 180013 12929408	3
PTOL-85 (Rev. 08/08) Ap	oproved for use through	08/31/2013. OMB 0651-00	)33 U.S. Pate	01 02 ent andggra	FC:2501 755.0 FC:1504 300.0 Heregg Office; U.S. DGP 0	D DA D DA FOMENT OF COMMERCE	

#### **EAST Search History**

#### **EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S65	149	(455/500.ccls or 455/418-420.ccls. or 455/3.06.ccls. or 455/566.ccls. or 455/557.ccls. or 455/556.1.ccls. or 455/66.1.ccls. or 455/414.1.ccls.) and ((covert\$3 or conversion) same format same display\$3)	US- PGPUB; USPAT; DERWENT	OR	ON	2011/07/18 11:26
S67		(375/240.01.ccls or 375/240.02.ccls. or 375/240.18.ccls. or 348/14.07.ccls. or 348/14.12.ccls. or 348/14.13.ccls. or 348/384.1.ccls. or 348/441.ccls.) and ((covert\$3 or conversion) same format same display\$3)	US- PGPUB; USPAT; DERWENT	OR	ON	2011/07/18 11:30
S68	6	(375/240.01.ccls or 375/240.02.ccls. or 375/240.18.ccls. or 348/14.07.ccls. or 348/14.12.ccls. or 348/14.13.ccls. or 348/384.1.ccls. or 348/441.ccls.) and ((covert\$3 or conversion) same format same display\$3 same (wireless, cellular))	US- PGPUB; USPAT; DERWENT	OR	ON	2011/07/18 11:31
S69		((covert\$3 or conversion) same format same display\$3 same (wireless, cellular))	EPO; JPO	OR	ON	2011/07/18 11:31
S70		(375/240.01.ccls or 375/240.02.ccls. or 375/240.18.ccls. or 348/14.07.ccls. or 348/14.12.ccls. or 348/14.13.ccls. or 348/384.1.ccls. or 348/441.ccls.) and ((covert\$3 or conversion) same format same display\$3 same compression)	US- PGPUB; USPAT; DERWENT	OR	ON	2011/07/18 11:35

#### **EAST Search History (Interference)**

Ref #	Hits	Search Query	:1 :	Default Operator	Plurals	Time Stamp
S71		(conversion and compression and format and display and cellular and signal and video and alternative).CLM.	USPAT; UPAD	OR	ON	2011/07/18 11:34

7/19/2011 1:06:25 PM

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PTO/SB/17 (10-08)
Approved for use through 09/30/2010. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Ounder the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/	2004	Complete if Known			
Επετίνε on 1208. Fees pursuant to the Consolidated Approp		Application Number	12/929,408-Conf. #2646		
FEE TRANS	MITTAL	Filing Date	January 21, 2011		
		First Named Inventor	Tiejun Wang		
For FY 20	<u> </u>	Examiner Name	B. J. Miller		
X Applicant claims small entity state	us. See 37 CFR 1.27	Art Unit	2617		
TOTAL AMOUNT OF PAYMENT	(\$) 1,064.00	Attorney Docket No.	WAN-0001/CON	_	
METHOD OF PAYMENT (check	all that apply)			_	

METHOD OF PAYME	METHOD OF PAYMENT (check all that apply)									
Check Credi	t Card	Money Order	None	Other (	please identify	): 				
X Deposit Account D	eposit Account Num	ber: 18-	0013	Deposit	Account Name:	Rader, Fishm	an & Grauer PLLC			
For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)										
x Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee										
Charge any additional fee(s) or underpayments of										
fee(s) under 37 CFR 1.16 and 1.17										
FEE CALCULATION										
1. BASIC FILING, SEAR				CUEEE	EV A BAINI	ATION EEES				
	FILIN	IG FEES Small Entity	SEAR	CH FEES Small Entity	EVAIMIN	ATION FEES Small Entity				
Application Type	<u>Fee (\$)</u>	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fees Paid (\$)			
Utility	330	165	540	270	220	110				
Design	220	110	100	50	140	70				
Plant	220	110	330	165	170	85				
Reissue	330	165	540	270	650	325				
Provisional	220	110	0	0	0	0				
2. EXCESS CLAIM FEES	S					F /	Small Entity 5) Fee (\$)			
Fee Description						Fee (S	<u> </u>			
Each claim over 20 (incl	-	-				52 220	<del></del>			
Multiple dependent clair	`	ing iccissues)				390				
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- 20 or HP	Extra Claims	, <u>ree (\$)</u>	100	Tala (V)			ee Paid (\$)			
HP = highest number of total	claims paid for, if	greater than 20.	****							
Indep. Claims	Extra Claims	Fee (\$)	Fee	Paid (\$)						
- 3 or HP =	,									
HP = highest number of inde	pendent claims pai	d for, if greater tha	n 3.							
3. APPLICATION SIZE F										
If the specification and	drawings exce	ed 100 sheets o	of paper (ex	cluding electr	onically file	ed sequence or o	computer			
listings under 37 CFR 1.52(e)), the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$) Fee Paid (\$)										
100 = /50 = (round up to a whole number) x =										
Non-English Specification, \$130 fee (no small entity discount)										
Other (e.g., late filing	g surcharge): 2	501 Utility iss	ue fee			1	755.00			
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SUBMITTED BY	<del>/ //                                 </del>	1	Гол	egistration No.		T=	(000) 055 0750			
Signature	IX ノノ	$\sim$		ttorney/Agent)	40,290	Telephone	(202) 955-3750			

	SUBMITTED BY			A `	ᠰ	4					
	Signature				//	人	)	Registration No. (Attorney/Agent)	40,290	Telephone	(202) 955-3750
	Name (Print/Type)	Christo	phe	г М.	obin					Date	September 13, 2011
•											



Docket No.: WAN-0001/CON

(PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Tiejun Wang et al.

Application No.: 12/929,408

Confirmation No.: 2646

Filed: January 21, 2011

Art Unit: 2617

For: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Examiner: B. J. Miller

#### COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicant has received the Examiner's Statement of Reasons for Allowance with the Notices of Allowance of August 10, 2011, in connection with the above-identified application. The Examiner therein provided a Statement of Reasons for Allowance regarding the claims.

In that regard, Applicant does not acquiesce to any inference or presumption that may be drawn from the Examiner's stated reasoning, and the issuance of the Examiner's Statement of Reasons for Allowance should not be construed as surrender by Applicant of any subject matter.

Dated: September 13, 2011

Respectfylly sphmitted

Christopher M. Tobin

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC Correspondence Customer Number: 23353

Attorney for Applicant



23353

#### United States Patent and Trademark Office

10/12/2011

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	APPLICATION NO. ISSUE DATE		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
12/929,408	11/01/2011	8050711	WAN-0001/CON	2646	

11/01/2011 12/929,408 7590

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036

#### ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

#### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Tiejun Ronald Wang, La Jolla, CA; William E. Halal, Washington, DC; Tiehong Ann Wang, Arlington, VA; Ximing Wang, Beijing, CHINA;



Docket No.: WAN-0001/CON

(PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Tiejun Wang et al.

Application No.: 12/929,408

Filed: January 21, 2011

For: METHODS, SYSTEMS AND APPARATUS

FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS

Confirmation No.: 2646

Art Unit: 2617

Examiner: B. J. Miller

## CORRECTION OF ERROR IN SMALL ENTITY STATUS AND NOTICE OF LOSS OF ENTITLEMENT TO SMALL ENTITY STATUS

Mail Stop M Correspondence Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicant hereby seeks correction of an error of small entity status as provided by 37 C.F.R. 1.28(c). The fee payment(s) identified below were made under small entity status established in good faith, with the corresponding small entity status fee payment(s) also being paid in good faith for each and every identified payment. However, out of an abundance of caution, on information recently appreciated, Applicant has determined that it is preferable to proceed under large entity status due to licensing activity. After reasonable investigation, the date of this licensing activity is considered to be July 11, 2011.

Accordingly, please treat this communication as notice that Applicant no longer qualifies for small entity status, and that entitlement to small entity status no longer applies.

02/08/2012 DALLEN 00000006 180013 12929408

01 FC:1461 985.00 DA

Application No.:12/929,408 Docket No.: WAN-0001/CON

As a result of Applicant's compliance with the separate submission and itemization requirements under 37 C.F.R. 1.28(c)(1) and (c)(2) as provided herein, Applicant respectfully request that they be excused from any small entity fee payment errors. Further, Applicant respectfully requests that the United States Patent and Trademark Office change its records to reflect the change of status to a non-small entity and accept this document as Applicant's Notice of Loss of Entitlement to Small Entity Status.

#### Itemization is as follows:

	<i><b>4,22.</b></i> (3)	5 op 10, 2011	Total:	\$985.00
Utility Issue Fee	Paid \$755.00	September 13, 2011	\$1,740.00	\$985.00
Type of Fee Erroneously Paid	Small Entity Fee Actually	Date Small Entity Fee Actually Paid	Current Fee for Non-Small Entity	Deficiency to be Paid

The Commissioner is hereby authorized to charge all required fees under 37 C.F.R. §§1.16(f) or any other required fee, to Deposit Account # 18-0013.

Should the United States Patent and Trademark Office believe anything further is desirable, the United States Patent and Trademark Office is invited to contact Applicant's representative at the telephone number listed below.

Dated: February 3, 2012

Respectfully submitted.

Christopher M. Tobin

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC Correspondence Customer Number: 23353

Attorney for Applicant

(202) 955-3750

O P A D FEB 0 3 2012 &

PTO/SB/17 (10-08) Approved for use through 09/30/2010. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE action Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number Paperwor Complete if Known Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). 12/929,408-Conf. #2646 Application Number FEE TRANSMITTAL January 21, 2011 Filing Date Tiejun Wang First Named Inventor For FY 2009 **Examiner Name** B. J. Miller Applicant claims small entity status. See 37 CFR 1.27 2617 Art Unit WAN-0001/CON TOTAL AMOUNT OF PAYMENT 985.00 Attorney Docket No. METHOD OF PAYMENT (check all that apply) Check Credit Card Money Order None Other (please identify): 18-0013 Deposit Account Name: Rader, Fishman & Grauer PolC x Deposit Account Deposit Account Number: For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) Charge fee(s) indicated below, except for the filing fee Charge fee(s) indicated below Charge any additional fee(s) or underpayments of x Credit any overpayments fee(s) under 37 CFR 1.16 and 1.17 **FEE CALCULATION** 1. BASIC FILING, SEARCH, AND EXAMINATION FEES **EXAMINATION FEES FILING FEES** SEARCH FEES **Small Entity Small Entity** Small Entity Fees Paid (\$) **Application Type** Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) Fee (\$) 220 110 Utility 330 165 540 270 220 110 100 50 140 70 Design Plant 220 110 330 165 170 85 540 270 325 330 650 Reissue 165 Provisional 220 110 0 0 2. EXCESS CLAIM FEES **Small Entity** Fee (\$) Fee (\$) Fee Description Each claim over 20 (including Reissues) 52 26 Each independent claim over 3 (including Reissues) 220 110 105

	claims				390 195
Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dep	endent Claims
- 20	or HP	x <u>'</u> =		Fee (\$)	Fee Paid (\$)
HP = highest number of	of total claims paid for, if	greater than 20.			
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)		
- 3 or	HP =	x =			
HP = highest number of	of independent claims pa	id for, if greater th	an 3.		
			ize fee due is \$270 (\$135 for sn	nall entity) for ea	ich additional 50
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Total Sheets					
Total Sheets  Total Sheets  Total Sheets	Extra Sheets	/50 =	r of each additional 50 or fraction (round up to a whole nul		

Registration No. (Attorney/Agent)

40,290

Telephone

Date

(202) 955-3750

February 3, 2012

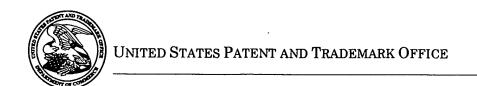
SUBMITTED BY

Name (Print/Type)

Christopher M.

**7**obin

Signature



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON DC 20036

MAILED

MAR 09 2012

OFFICE OF PETITIONS

In re Patent No. 8,050,711

Issue Date: 1 November, 2011

Application No. 12/929,408

ON PETITION

Filed: 21 January, 2011

Attorney Docket No. WAN-0001/CON

This is a decision on the petition filed on 3 February, 2012, under 37 C.F.R. §1.27(g)(2) requesting that status as a Small Entity be removed.

#### **NOTE**:

In view of their duty of candor to the Office to properly inquire to ascertain the accuracy of representations made before the Office (see: 37 C.F.R. §1.4, §10.18, MPEP §410), Petitioners always are reminded of the responsibility to review their records and submit accurate information to the Office.

Petitioners also are reminded to chart out the fees paid/fees due/balance due in their submission(s) to the Office. (See, generally: 37 C.F.R. §1.27, §1.28, MPEP §509.02 and 509-03.)

Petitioner's submission is **ACCEPTED**.

In accordance with the request, status as a Small Entity will be removed, and Petitioner is required to pay fees at the schedule set forth for not-small entities. The additional fees were charged as authorized.

Page 133 of 372

Patent No. 8,050,711 Application No. 12/929,408

The availability of applications and application papers online to applicants/practitioners who diligently associate their Customer Number with the respective application(s) now provides an applicant/practitioner on-demand information as to events/transactions in an application.

Out of an abundance of caution, Petitioners always are reminded that that those registered to practice <u>and</u> all others who make representations before the Office **must** inquire into the underlying facts of representations made to the Office and support averments with the appropriate documentation—since all owe to the Office the continuing duty to disclose.<sup>1</sup>

The instant application is released to the Office of Patent Application Processing (OPAP) for further processing in due course as is necessary before it is released for substantive examination.

Telephone inquiries regarding this decision may be directed to the undersigned at (571) 272-3214—it is noted, however, that all practice before the Office is in writing (see: 37 C.F.R. §1.2<sup>2</sup>) and the proper authority for action on any matter in this regard are the statutes (35 U.S.C.), regulations (37 C.F.R.) and the commentary on policy (MPEP). Therefore, no telephone discussion may be controlling or considered authority for Petitioner's action(s).

/John J. Gillon, Jr./ John J. Gillon, Jr. Senior Attorney Office of Petitions

<sup>&</sup>lt;sup>1</sup> <u>See</u> supplement of 17 June, 1999. The Patent and Trademark Office is relying on Petitioner's duty of candor and good faith and accepting a statement made by Petitioner. <u>See Changes to Patent Practice and Procedure</u>, 62 <u>Fed. Reg.</u> at 53160 and 53178, 1203 <u>Off. Gaz. Pat. Office</u> at 88 and 103 (responses to comments 64 and 109)(applicant obligated under 37 C.F.R. §10.18 to inquire into the underlying facts and circumstances when providing statements to the Patent and Trademark Office).

<sup>&</sup>lt;sup>2</sup> The regulations at 37 C.F.R. §1.2 provide:

<sup>§1.2</sup> Business to be transacted in writing.

All business with the Patent and Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

AO 120 (Rev. 08/10)

# Mail Stop 8

# REPORT ON THE

O: Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450		FILING OR DETERMINA ACTION REGARDING A TRADEMARI	PATENT OR		
In Compliance		15 U.S.C. § Easter	1116 you are hereby advised that a court action District of Virginia	on has been on the following	
	Patents. (  the patent ac	tion involve	s 35 U.S.C. § 292.):		
DOCKET NO.	DATE FILED 10/4/2012	U.S. DI	STRICT COURT Eastern District of Virgin	nia	
2:12cv548 PLAINTIFF	10/4/2012		DEFENDANT		
Virginia Innovation Sciences, Inc.			Samsung Electronics Co., LTD., Sa America, Inc., and Samsung Teleco America, LLC.	msung Electronics mmunications	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK		HOLDER OF PATENT OR TRAI	DEMARK	
1 7,899,492	3/1/2011	Virg	inia Innovation Sciences, Inc.		
2 8,050,711	11/1/2011	Virg	inia Innovation Sciences, Inc.	· · · · · · · · · · · · · · · · · · ·	
3 8,145,268	3/27/2012	Virg	inia Innovation Sciences, Inc.		
4 8,224,381	7/17/2012	Virg	inia Innovation Sciences, Inc.		
5 7,957,733	6/7/2011	Virg	Virginia Innovation Sciences, Inc.		
	In the above—entitled case t	the following	g patent(s)/ trademark(s) have been included:		
DATE INCLUDED	INCLUDED BY	mendment	☐ Answer ☐ Cross Bill ☐	Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK		HOLDER OF PATENT OR TRA	DEMARK	
1 8,135,398	3/13/2012	Virg	ginia Innovation Sciences, Inc. (Conti	nued from above)	
2		į			
3					
4					
5					
In the abo	ove-entitled case, the following	ng decision	has been rendered or judgement issued:		
DECISION/JUDGEMENT					
CLERK	(1	BY) DEPUT	Y CLERK	DATE	
Fernando Galindo		R. Simr	nons	10/12/2012	

Copy 1-Upon initiation of action, mail this copy to Director Copy 3-Upon termination of action, mail this copy to Director Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

PATENT - POWER OF ATTORNEY	Patent Number	8,050,711
OR	Issue Date	Nov. 1, 2011
REVOCATION OF POWER OF ATTORNEY	First Named Inventor	Wang, Tiejun (Ronald)
WITH A NEW POWER OF ATTORNEY  AND	I ICIO	METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING, ETC.
CHANGE OF CORRESPONDENCE ADDRESS	Attorney Docket Number	14800.1001B

I heri	I hereby revoke all previous powers of attorney given in the above-identified patent.						
П	A Power of Attorney is submitted herewith.						
OR OR	I hereby appoi	oint Practitioner(s) associated with the following Customer Number as my/our r agent(s) with respect to the patent identified above, and to transact all business in tates Patent and Trademark Office connected therewith:				25099	
	I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:					patent identified nerewith:	
		Practitioner(s) Name		***************************************	Registration	per une en a commercia antidocumbancio	
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	Firm or Individual Name		SPIN JOHN VINILLY WOULD SHAW THE WASHINGTON TO SHAW THE WASHINGTON T	***************************************			
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	Inventor, having ownership of the patent.  OR						
		SIGNATUR	E of Inventor or Pate	ent Owner			
Signa	ture	<b></b>			Date	10/30	0/13
Name	<u>,</u>	Tiehong Ann Wang			Telephone	<u> </u>	
	and Company	President and CEO, Virginia Inno				**************************************	
	Signatures of all the re is required, see by	ne inventors or patent owners of the elelow*.	entire interest or their re	presentative(	(s) are required. S	ubmit multip	ie forms if more than one
X	*Total of _1	forms are submitted.					

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer. U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA. 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Approved for use through 07/31/2012. CMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR	3.73(b)
Applicant/Patent Owner: Virginia Innovation Sciences, Inc.	
Application No./Patent No.: U.S. Patent No. 8,050,711 Filed/Issu	e Date: Nov. 1, 2011
Titled: METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING T WIRELESS COMMUNICATION NETWORKS	
Virginia Innovation Sciences, Inc.	
(Name of Assignee) (Type of Assignee, e.g.,	corporation, partnership, university, government agency, etc.
states that it is:	
1. X the assignee of the entire right, title, and interest in;	
an assignee of less than the entire right, title, and interest in     (The extent (by percentage) of its ownership interest is%	); or
3 the assignee of an undivided interest in the entirety of (a complete assi	ignment from one of the joint inventors was made)
the patent application/patent identified above, by virtue of either:	
An assignment from the inventor(s) of the patent application/patent ide the United States Patent and Trademark Office at Reel copy therefore is attached.	ntified above. The assignment was recorded in , Frame, or for which a
OR	
B. X A chain of title from the inventor(s), of the patent application/patent idea	ntified above, to the current assignee as follows:
1. From: Teijun Wang, William E. Halal, et al. To:	SellerBid, Inc.
The document was recorded in the United States Patent and Reel 025642 . Frame 0340	Trademark Office at or for which a copy thereof is attached.
2. From: Teijun Wang, William E. Halal, et al. To:	SellerBid, Inc.
The document was recorded in the United States Patent and	Trademark Office at
Reel 025665 Frame 0712	or for which a copy thereof is attached.
3. From: Teijun Wang, William E. Halal, et al. To:	SellerBid, Inc.
The document was recorded in the United States Patent and	Trademark Office at
Reel 026670 , Frame 0803	_, or for which a copy thereof is attached.
Additional documents in the chain of title are listed on a supplemental	sheet(s).
As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chair or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.	in of title from the original owner to the assignee was,
[NOTE: A separate copy (i.e., a true copy of the original assignment docur accordance with 37 CFR Part 3, to record the assignment in the records of	ment(s)) must be submitted to Assignment Division in the USPTO. See MPEP 302.08]
The undersigned (whose title is supplied below) is authorized to act on behalf of the	e assignee,
	10/30/13
Signature	Date
Tiehong Ann Wang	President and CEO
Printed or Typed Name	Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Attorney Docket No.: 14800.1001B

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 8,050,711	)	
In the name of: Tiejun Ronald Wang et al.	; )	Examiner: Brandon J. Miller
Appln. No. 12/929,408	; )	TC Art Unit: 2617
ssued: November 1, 2011	)	,
For: METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS	) : )	
Го: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450		

#### SUPPLEMENTAL SHEET FOR STATEMENT UNDER 37 C.F.R. § 3.73(b)

Sir:

The following continues the chain of title for the above-identified patent pursuant to the Statement Under 37 C.F.R. § 3.73(b) to which this supplemental sheet is attached:

4. From SellerBid, Inc., to Virginia Innovation Sciences, Inc.
The document was recorded in the U.S. Patent and Trademark Office at Reel 029154, Frame 0987.

Electronic Acknowledgement Receipt				
EFS ID:	17288161			
Application Number:	12929408			
International Application Number:				
Confirmation Number:	2646			
Title of Invention:	METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS			
First Named Inventor/Applicant Name:	Tiejun Ronald Wang			
Customer Number:	23353			
Filer:	David M. Quinlan			
Filer Authorized By:				
Attorney Docket Number:	WAN-0001/CON			
Receipt Date:	01-NOV-2013			
Filing Date:	21-JAN-2011			
Time Stamp:	10:12:26			
Application Type:	Utility under 35 USC 111(a)			

## **Payment information:**

Submitted with Payment	no
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## File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA711 F.pdf	198762	no	1
,	Tower of Automicy	1 0/// 11_1 .pui	feaba1e61efe61dba875e88ed976e42a2e2 81136		'
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#### Information:

2	Assignee showing of ownership per 37	Statement711_F.pdf	237703	no	2
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#### Information:

Total Files Size (in bytes):	436465

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Attorney Docket No.: 14800.1001B

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 8,050,711	)	
In the name of: Tiejun Ronald Wang et al.	: )	Examiner: Brandon J. Miller
Appln. No. 12/929,408	:	TC Ant II. 2 2747
Issued: November 1, 2011	: )	TC Art Unit: 2617
For: METHODS, SYSTEMS AND APPARATUS FOR	: )	
DISPLAYING THE MULTIMEDIA INFORMATION	:	
FROM WIRELESS COMMUNICATION NETWORKS	)	Date: November 4, 2013

To: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## SUBMISSION FOR PLACEMENT IN PATENT FILE OF SUPPLEMENTAL DECLARATION OF INVENTOR WILLIAM E. HALAL UNDER 37 C.F.R. § 1.67

Submitted herewith for placement in the file of above-identified U.S. Patent No. 8,050,711 is a Supplemental Declaration for Utility or Design Patent Application (37 CFR 1.67), signed by co-inventor William E. Halal. This Supplemental Declaration has been filed with the patentee's Submission for Placement in Patent File of Supplemental Declaration of Inventor William E. Halal under 37 C.F.R. § 1.67, dated November 2, 2013, in U.S. Patent No. 7,899,492. Copies of that submission and its accompanying papers ("patentee's '492 patent submission") are submitted herewith.

As explained in the accompanying Declaration of Tiehong (Ann) Wang, dated November 4, 2013, she directed Christopher M. Tobin, the attorney for the assignee of the present application that issued as above-identified U.S. Patent No. 8,050,711 to file the application as a continuation of application no. 11/165,341, which issued as U.S. Patent No. 7,899,492. As explained by Dr. Wang in her declaration, she subsequently learned that the papers Mr. Tobin submitted to the USPTO to effect filing of the present application included as the inventors' declaration for the continuation a copy of the original DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) from the '341 application ("the original '341 application declaration"). She did not inform Mr. Tobin of the

circumstances surrounding the execution by her of the original '341 application declaration on behalf of

Dr. William E. Halal. Those circumstances are outlined in the patentee's '492 patent submission. She

further testifies that at the time she was unaware that one of the requirements for filing a continuation

was the submission of an inventors' declaration, and that it was acceptable under standard USPTO

practice to use for that purpose a copy of a declaration from a former "parent" application on which the

continuation was based. She also testifies that she did not know that Mr. Tobin would submit a copy of

the original '341 application declaration in the present continuation application that issued as the

above-identified U.S. Patent No. 8,050,711. Based on Dr. Wang's testimony, it is believed that there was

no intent to deceive or mislead the USPTO in any way in submitting a copy of the original '341

application declaration to serve as the inventors' declaration in the present continuation application.

It is believed that no fees are due in connection with the present submission, but any unpaid fees

in connection herewith may be charged to Deposit Account No. 50-0409.

Respectfully submitted,

/David M. Quinlan/

David M. Quinlan

Attorney for Patent Owner

Registration No. 26,641

DAVID M. QUINLAN, P.C.

32 Nassau Street, Suite 300

Princeton, NJ 08542 Telephone: (609) 921 8660

Facsimile: (609) 921-8651

E-mail: david@quinlanpc.com

- 2 -

Attorney Docket No.: 14800.1001B

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 8,050,711	)	
In the name of: Tiejun Ronald Wang et al.	: )	Examiner: Brandon J. Miller
Appln. No. 12/929,408	: )	
Issued: November 1, 2011	:	TC Art Unit: 2617
For: METHODS, SYSTEMS AND APPARATUS FOR	)	
DISPLAYING THE MULTIMEDIA INFORMATION	:	4
FROM WIRELESS COMMUNICATION NETWORKS	)	
To: Commissioner for Patents		
P.O. Box 1450		
Alexandria, VA 22313-1450		

#### **DECLARATION OF TIEHONG (ANN) WANG**

- 1. I am the same Tiehong (Ann) Wang, Ph.D., who made and executed the Declaration of Teihong (Ann) Wang dated October 30, 2013, in U.S. Patent No. 7,899,492 ("the Wang '492 declaration"). The above-identified U.S. Patent No. 8,050,711 issued from a continuation of application no. 11/165,341 ("the '341 application") that issued as U.S. Patent No. 7,899,492. I have reviewed and am familiar with the patentee's Submission for Placement in Patent File of Supplemental Declaration of Inventor William E. Halal under 37 C.F.R. § 1.67, dated November 2, 2013, and the papers accompanying it, that have been filed in the United States Patent and Trademark Office ("USPTO") for placement in the file of U.S. Patent No. 7,899,492.
- 2. Acting on behalf of the assignee of the present application, I directed the assignee's attorney Christopher M. Tobin to file the present application as a continuation of the '341 application. I subsequently learned that the papers Mr. Tobin submitted to the USPTO to effect filing of the present application included as the inventors' declaration for the continuation a copy of the original DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) from the '341 application ("the original '341 application declaration"). I did not inform Mr. Tobin of the circumstances surrounding the execution by me of the original '341 application declaration on behalf of Dr. William E.

Halal. Those circumstances are outlined in the patentee's Submission for Placement in Patent File of Supplemental Declaration of Inventor William E. Halal under 37 C.F.R. § 1.67, dated November 2, 2013.

3. I was unaware at the time that one of the requirements for filing a continuation was the submission of an inventors' declaration, and that it was acceptable under standard USPTO practice to use for that purpose a copy of a declaration from a former "parent" application on which the continuation was based. I did not know that Mr. Tobin would submit a copy of the original '341 application declaration in the present continuation application that issued as the above-identified U.S. Patent No. 8,050,711. Accordingly, there was no intent to deceive or mislead the USPTO in any way in submitting a copy of the original '341 application declaration to serve as the inventors' declaration in the present continuation application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title XVIII of United States Code, and that such willful false statements may jeopardize the validity of the patent in connection with which this declaration is submitted.

Date: 11/4/13

Tiehong (Ann) Wang, Ph.D.

Attorney Docket No.: 14800.1001A

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re	U.S. Patent No. 7,899,492	)	
In th	e name of: Tiejun Ronald Wang et al.	;	Examiner: Brandon J. Miller
Appl	n. No. 11/165,341	)	TC Aut Huit. Oc 17
Issue	ed: March 1, 2011	; )	TC Art Unit: 2617
For:	METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS	;	Date: November 2, 2013

To: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# SUBMISSION FOR PLACEMENT IN PATENT FILE OF SUPPLEMENTAL DECLARATION OF INVENTOR WILLIAM E. HALAL UNDER 37 C.F.R. § 1.67

Submitted herewith for placement in the file of above-identified U.S. Patent No. 7,899,492 ("the '492 patent") is a Supplemental Declaration for Utility or Design Patent Application (37 CFR 1.67), signed by co-inventor William E. Halal.

This Supplemental Declaration is submitted to cure any potential deficiency in the original inventors' declaration submitted in application no. 11/165,341 ("the '341 application") resulting from the circumstances outlined herein. Pursuant to the provisions of 37 C.F.R. § 1.67(a)(2) in effect during the pendency of the '341 application, the accompanying Supplemental Declaration identifies the entire inventive entity, but is signed only by the inventor (Dr. Halal) to whom the potential deficiency outlined below relates.

The '492 patent and various of its descendants are involved in the following litigations:

- 1. Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd., Case No. 2:12-cv-00548 (E.D. Va.), and
- 2. Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd., Case No. 2:13-cv-00332 (E.D. Va.).

To ensure that the record is complete regarding the matters discussed herein, the following documents from case no. 2:12-cv-00548 accompany this Submission:

- Samsung's Initial Answer, Affirmative Defenses, and Counterclaims to the First Amended
   Complaint, dated August 7, 2013, with Defendant Samsung's Thirteenth Counterclaim;
- b. Plaintiff Virginia Innovation Sciences, Inc.'s Memorandum In Support Of Motion To Strike Defendants' Thirteenth Counterclaim Or, In The Alternative, Motion For Summary Judgment On Defendants' Thirteenth Counterclaim Related To Inequitable Conduct, dated August 13, 2013, and the following exhibits thereto:
  - Declaration Of Tiehong (Ann) Wang In Support Of Plaintiff Virginia Innovation
     Sciences, Inc.'s Motion To Strike Defendants' Thirteenth Counterclaim dated August
     13, 2013 (Exhibit 1) ("Wang Litigation Declaration"),
  - Declaration Of Professor William E. Halal In Support Of Plaintiff Virginia Innovation Sciences, Inc.'s Motion To Strike Defendants' Thirteenth Counterclaim dated August 13, 2013 (Exhibit 2) ("Halal Litigation Declaration"),
  - iii. DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

    (Exhibit 7) ("original '341 application declaration"),
  - iv. Excerpt of transcript of the deposition of Dr. Tiehong Wang on March 27 and 28,2013 (Exhibit 8), and
  - v. Excerpt of transcript of the deposition of William E. Halal, Ph.D., on March July 24, 2013 (Exhibit 9);
- Memorandum In Response To Motion To Strike Defendants' Thirteenth Counterclaim,
   dated August 26, 2013 ("Defendants' Memorandum"); and
- d. Plaintiff's Rebuttal Brief In Support Of Motion To Strike Defendants' Thirteenth
   Counterclaim, dated September 4, 2013.

The '341 application was filed personally by Dr. Tiehong (Ann) Wang, one of Mr. Halal's co-inventors. The circumstances surrounding the preparation and filing of the '341 application are set

forth in the above papers from case no. 2:12-cv-00548, particularly the Wang Litigation Declaration and

the Halal Litigation Declaration, as well as the accompanying Declaration of Tiehong (Ann) Wang and

Declaration of William E. Halal submitted herewith.

To summarize, Dr. Wang signed the original '341 application declaration on behalf of Dr. Halal

with his full authorization and consent. The defendants in the above litigations contend that this

constituted inequitable conduct (see Defendants' Memorandum), even though the USPTO and the

Federal Circuit have expressly ratified this filing procedure in a situation identical to the present case.

Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co., 228 F.3d 1338 (Fed. Cir. 2000).

In Ajinomoto, the patentee submitted a supplemental declaration to the USPTO after issuance of

the patent-in-suit. As in the present case, some of the inventors' signatures on the original application

declaration had been entered, with full authorization, by other inventors through a "lack of knowledge of

the technical requirements of U.S. patent law and . . . without deceptive intent." 228 F.3d at 1344. The

substitute declaration, which was accepted by the USPTO, was signed by the inventors whose signatures

had been entered by other inventors. Accordingly, the patentee in the present case submits the

accompanying Supplemental Declaration for Utility or Design Patent Application (37 CFR 1.67), signed

by Dr. Halal, pursuant to the procedure expressly approved in the *Ajinomoto* case.

It is believed that no fees are due in connection with the present submission, but any unpaid fees

in connection herewith may be charged to Deposit Account No. 50-0409.

Respectfully submitted,

/David M. Quinlan/

David M. Quinlan

Attorney for Patent Owner

Registration No. 26,641

DAVID M. QUINLAN, P.C.

32 Nassau Street, Suite 300

Princeton, NJ 08542

Telephone: (609) 921 8660 Facsimile: (609) 921-8651

E-mail: david@quinlanpc.com

- 3 -

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## SUPPLEMENTAL **DECLARATION FOR UTILITY** OR DESIGN PATENT APPLICATION (37 CFR 1.67)

Attorney Docket Num	Attorney Docket Number 14800.1001A  First Named Inventor Wang, Tielun (Ro		
First Named Inventor			Named Inventor Wang, Tielun (Ronald)
	COI	MPLETE IF KNOWN	
Application Number	11/1	65,341	
Filing Date	Jun	e 24, 2005	
Art Unit	261	7	
Examiner Name	Вга	ndon J. Miller	

I hereby declare that:						
Each inventor's residence, mailing address, and citizenship are as stated below next to their name.						
I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:						
METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION, ETC.						
the appoilination of which	(	Title of the invention	1)			
the specification of which						
is attached hereto						
OR _			1			
✓ was filed on (MM/DD/YYYY)	June 24, 1	2005	as United State	es Application Nur	nber or PCT In	ternational
L			J			
Application Number		and was amende	d on (MM/DD/YY	·YY)		
I hereby declare that the subject mate the invention and was invented befor	ter of the attached e the filing date of the ori		amendment filed bove identified for			was part of
I hereby state that I have reviewed an amendment specifically referred to at		nts of the above-ide	ntified specification	on, including the c	laims, as amen	ded by any
I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.						
I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or of any PCT international application having a filing date before that of the application on which priority is claimed.						
Prior Foreign Application Number(s)	Country		Filing Date DD/YYYY)	Priority Not Claimed	Certified Cop YES	y Attached? NO
Additional foreign application num	bers are listed on a supplen	nental priority data she	et PTO/SB/02B atta	ached hereto.		

[Page 1 of 2]

[Page 1 or 2]
This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# SUPPLEMENTAL DECLARATION — UTILITY OR DESIGN PATENT APPLICATION

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(other than a check or credit card authorization USPTO to support a petition or an application. USPTO, petitioners/applicants should consider re to the USPTO. Petitioner/applicant is advised that the application (unless a non-publication request i patent. Furthermore, the record from an aban referenced in a published application or an issued 2038 submitted for payment purposes are not retain the the the that all statements made herein to belief are believed to be true; and further that the	Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.  I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements may ieopardize the validity of the application or any patent issued thereon.							
Name of Sole or First Inventor: A petit	ion has been f	filed for this unsig	ned invento	r				
Given Name Tiejun (Ronald)		Family Name WANG	or Surname	ı				
Inventor's Signature						Date		
Residence: City	State	Countr	īy		Citize	nship		
La Jolla	CA	US			CN			
Mailing Address 9162 Regents Road								
Mailing Address Apt.		Makes and the state of the stat						
City La Jolla	State CA			ZIP   Country   92037   US		ту		
Additional inventor(s) or legal representative(s) are	e being named	on the 1 su	pplemental	sheet(s) PTO/SB/	02A or 02l	LR attached		

[Page 2 of 2]

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Given Name (first and middle (if any		ne or Surname				-	
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Given Name (first and middle (if any)	)		Family Nar	ne or Surname			
Yichong (Ann)	***************************************	WANG	999Web0000000000000000000000000000000000	PARTITION OF THE PARTIT	- controlled		$\dashv$
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Inventor's Signature				Date			
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(and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file minutes to complete, including gathering, preparing, and supmitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No.: 14800.1001A

Alexandria, VA 22313-1450

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 7,899,492	)	
In the name of: Tiejun Ronald Wang et al.	: )	Examiner: Brandon J. Miller
Appln. No. 11/165,341	: )	mc A + H + 2647
Issued: March 1, 2011	: )	TC Art Unit: 2617
For: METHODS, SYSTEMS AND APPARATUS FOR	: )	
DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS	: )	
To: Commissioner for Patents		
P.O. Box 1450		

#### **DECLARATION OF TIEHONG (ANN) WANG**

- 1. I am the same Tiehong (Ann) Wang, Ph.D., who made and executed the Declaration Of Teihong (Ann) Wang In Support Of Plaintiff Virginia Innovation Sciences, Inc.'s Motion To Strike Defendants' Thirteenth Counterclaim, Or In The Alternative, Motion For Summary Judgment On Defendants' Thirteenth Counterclaim Related To Inequitable Conduct, dated August 13, 2013, in the case of *Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd.*, Case No. 2:12-cv-00548 (E.D. Va.) ("Wang Litigation Declaration"). A copy of the Wang Litigation Declaration accompanies the present Declaration and is incorporated by reference herein as if set out in full. I adopt and ratify all statements in the Wang Litigation Declaration.
- 2. I was correctly named as a co-inventor on United States Patent Application No. 11/165,341 ("the '341 application"), which issued as above-identified U.S. Patent No. 7,899,492 ("the '492 patent").
- 3. In June 2005 I was assembling papers for submission to the United States Patent and Trademark Office ("USPTO") to effect filing of the '341 application. I prepared the DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) ("original '341 application declaration") required for that purpose and forwarded it for review and execution to all of the other inventors, including Dr. William E. Halal. A copy of the original '341 application declaration accompanies the

present Declaration. After I forwarded the original '341 application declaration to Dr. Halal, we spoke by telephone and we agreed that I would sign the original '341 application declaration on his behalf and he authorized me to do so. Accordingly, I entered Dr. Halal's signature on the original '341 application declaration.

- 4. I believed this to be an acceptable manner of having Dr. Halal's signature affixed to the original '341 application declaration. I am not a patent practitioner and I did not consult patent counsel before agreeing to affix Dr. Halal's signature to the original '341 application declaration on his behalf. I had no knowledge at the time that this might be deemed by some to conflict with any technical requirements of United States patent laws, or any preferred practice of the United States Patent and Trademark Office ("USPTO"). After assembling the necessary papers, including the original '341 application declaration, I personally filed all of the '341 application papers in the USPTO, including the original '341 application declaration, also without consulting patent counsel.
- 5. In entering Dr. Halal's signature on the original '341 application declaration, I did not intend to deceive or mislead the USPTO in any way. I believed at the time that entering Dr. Halal's signature on the original '341 application declaration on his behalf was equivalent to him signing it personally. Further, I expected the USPTO to treat it as such, since at all times Dr. Halal was willing to sign the original '341 application declaration as an original and first inventor, along with the other individuals named on the original '341 application declaration, of the subject matter claimed in the original '341 application. I entered Dr. Halal's signature on the original '341 application declaration solely as a courtesy to Dr. Halal, who otherwise would have had to drive through traffic from his residence in Washington, DC, to Arlington, Virginia, where I was assembling the necessary papers for filling the '341 application. At the time in June 2005 and for all times thereafter, I have always intended for the signature I entered on the original '341 application declaration on behalf of Dr. Halal to function as his signature as if he had entered it himself.
- 6. Further circumstances surrounding my execution on behalf of Dr. Halal of the original '341 application declaration are set forth at pages 177-180 of the transcript of the deposition of Tiehong

(Ann) Wang, on March 27, 2013, taken in the *Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd.*, litigation referred to above. During my deposition, I was asked about Dr. Halal's signature and testified that he had personally signed the original '341 application declaration. My testimony was based on my best recollection at the time of the deposition, almost eight years after the events leading up to filing the '341 application. When I read the transcript of the subsequent deposition of Dr. Halal in the same litigation taken on July 24, 2013, I saw at pages 90-93 and 102-103 of the transcript of his deposition that he had testified that he had authorized me to sign the original '341 application declaration on his behalf. I then recalled that I did in fact enter Dr. Halal's signature on the original '341 application declaration at his request. Copies of the pages of the transcripts of my deposition and of Dr. Halal's deposition transcript mentioned herein accompany the present Declaration.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title XVIII of United States Code, and that such willful false statements may jeopardize the validity of the patent in connection with which this declaration is submitted.

Date: 10/30/13 Tiehong (Ann) Wang, Ph.D.

#### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVIRGINIA INNOVATIONION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

Case No. 2:12-CV-00548-MSD-DEM

٧.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

DECLARATION OF TIEHONG (ANN) WANG IN SUPPORT OF PLAINTIFF VIRGINIA INNOVATION SCIENCES, INC.'S MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

- I, Tiehong (Ann) Wang, herby, declare as follows:
- I am over the age of eighteen (18) and am personally familiar with and have personal knowledge of the facts stated in this declaration. If called as a witness, I could and would testify competently to each fact stated herein.
- 2. This declaration is made in support of Virginia Innovation Sciences, Inc.'s

  Motion to Strike Defendants' Thirteenth Counterclaim or, in the alternative, Motion for

  Summary Judgment on Defendants' Thirteenth Counterclaim related to Inequitable Conduct.
- 3. I am a named inventor of United States Patents No. 7,899,492 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,050,711 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,145,268 entitled

"Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,224,381 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 7,957,733 entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals", and 8,135,398 entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals". (hereinafter referred to as "the asserted patents").

- 4. I was personally involved in creation of the patented inventions disclosed in the asserted patents and prosecution of those patents.
- 5. I am the chief executive officer of Virginia Innovation Sciences, Inc. ("Virginia Innovation").
  - 6. Virginia Innovation is the current owner of the asserted patents.
- 7. On June 24, 2005 I filed U.S. Patent Application No. 11/165,341 ("the '341 application") *pro se*, without the assistance of counsel.
- 8. I am not an attorney and at the time of the filing of the '341 patent application I had no formal legal training.
- 9. At the time I filed the '341 application, I was not aware that original signatures were required on the declaration of inventorship.
- 10. I signed the '341 application on behalf of Professor William Halal pursuant to Professor Halal's instruction, request, and authorization and believed it to be an effective signature on Prof. Halal's behalf.
- 11. I did this as a courtesy to Professor Halal after he told me he would not want to drive in the Washington, D.C. traffic to Virginia to meet me to sign the declaration and instructed me to sign for him.

12. In signing Professor Halal's signature on the declaration, at no time did I intend to deceive or mislead the United States Patent and Trademark Office ("PTO").

13. After Professor Halal was deposed in this action, I had a chance to review his testimony regarding the signature, which refreshed my recollection that I signed Professor Halal's name to the declaration pursuant to his instruction and authorization.

14. Virginia Innovation has retained prosecution counsel to determine if Prof. Halal's authorized signature is a technical error to be fixed with a supplemental declaration.

15. Professor Halal was correctly named as a co-inventor on the '341 application, which issued as the '492 patent.

16. Professor Halal contributed to at least one claim in the '492 patent.

17. During the prosecution of the '733 and '398 patents it was my understanding that there was no duty to disclose references in the '733 and '398 patents that were previously disclosed in the '492 patent.

18. I did not intend to deceive the PTO by not disclosing during prosecution of the'733 and '398 patents the references cited during prosecution of the '492 patent.

19. I do not remember when I wrote the words "caution, important art".

20. Further, I do not remember if I wrote those words in connection with prosecuting a patent-in-suit, prosecuting a patent not in suit, or during the course of my other activities as an inventor at Virginia Innovation Sciences, Inc.

I declare under penalty of perjury that the foregoing is true and accurate.

DATED: August 13, 2013

Respectfully submitted,

Tiehong (Ann) Wang

PTO/SB/01 (04-05) Approved for use through 07/31/2005, OMB 0551-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Attorney Docket **DECLARATION FOR UTILITY OR** Number tor Tiejus (Rondd) Warg First Named Inventor DESIGN PATENT APPLICATION (37 CFR 1.63) Application Number Filing Date Declaration Declaration Submitted after Initial Submitted OR Art Unit With Initial Filing (surcharge Filing (37 ČFR 1.16 (a)) Examiner Name required) I hereby declare that: Each Inventor's residence, mailing address, and citizenship are as stated below next to their name. I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled: Tiejun (Rondd) Wang

William E. Halal Ximing Wang

(Tille of the Invention)

the specification of which Mobile Terminal Signal Conversion for External Display Tigiun ( Rondd ) Wang is attached hereto OR as United States Application Number or PCT International was filed on (MM/DD/YYYY) and was amended on (MM/DD/YYYY) (if applicable). Application Number I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, Including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed. Priority Certified Copy Attached? Foreign Filing Date Prior Foreign Application YES Country (MM/DD/YYYY) Not Claimed Number(s) Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]
This collection of Information is required by 35 U.S.C. 115 and 37 CFR 1.53. The information is required to obtain or intain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, prepanne, and submitting the complete on the USPTO. Thine will vary depending upon the individual case. Any comments on the anount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commence, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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VIS-001820

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paparwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number DECLARATION — Utility or Design Patent Application OR Correspondence IV Direct all The address address below associated with correspondence to: Customer Number: Name Address # 1406 ZIP City 22202 Email Telephone Country COM 703. ann wang66@ I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. NAME OF SOLE OR FIRST INVENTOR: A petition has been filed for this unsigned inventor Family Name or Surname Given Name (first and middle [if any]) ( Rona liejun Date Inventor's Signature 06/24/2005 Citizenship State Country Residence: City Jolla USA La Mailing Address Apt ggents 916 Q Country State City 92037 A petition has been filed for this unsigned inventor NAME OF SECOND INVENTOR: Family Name or Surname Given Name (first and middle [if any]) Halal William Date Inventor's Signature Halal 06/24/2005 Country Citizenship Residence: City State Washing-ton Mailing Address 3342 Country City State US 20016 'ash supplemental sheet(s) PTO/SB/02A or 02LR attached hereto Additional inventors or a legal representative are being named on the

[Page 2 of 2]

NAME OF THIRD INVENTOR :

Tiehang (Ann.) Wang

Residence: Arlington VA

Citizaship: China

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Arlington VA. 20000. USA

Signostuse: 3 Date: 06/24/2005

NAME OF FOURTH INVENTOR:

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Residence: Beijing china

Citizenship: China

Mailing Address: Beijng Buiness & Technology Univ.

Building # A2. Rm 134

Beijing . Lina 100037

Signature: Timing Wang

Date: 06/10/2005

VIS-001822

Virginia Innovation Sciences, Inc. v.

Dr. Tiehong Wang - Vol. 1 March 27, 2013

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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present:  Jason Levin, Videographer	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	7 6 9 10 11 12 13 14 15 16	DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure	37 44 55 63 67 68 108 119 125 127
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present:  Jason Levin, Videographer	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	7 8 9 10 11 12 13 14 15 16 17	DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application	37 44 55 63 67 68 108 119 125 127 136
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present:  Jason Levin, Videographer	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	7 8 9 10 11 12 13 14 15 16 17 18	DESCRIPTION  Unanimous Written Consent of the  Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting  Tax Return Documents  Resume  Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting  Deed of Gift  Articles of Incorporation of SellerBid, Inc.  Handwritten Notes  Handwritten Notes  Handwritten Notes  Figure  Provisional Patent Application  Utility Patent Application	37 44 55 63 67 68 108 119 125 127 136
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present:  Jason Levin, Videographer	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	7 8 9 10 11 12 13 14 15 16 17 18 19	Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application Utility Patent Application Email dated July 8, 2005 from Ronald Wang to Ronald Wang with attachment Patent 8,050,711	37 44 55 63 67 69 108 119 125 127 136 160 163
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present:  Jason Levin, Videographer	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	7 8 9 10 11 12 13 14 15 16 17 18	Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application Utility Patent Application Email dated July 8, 2005 from Ronald Wang to Ronald Wang with attachment	37 44 55 63 67 68 108 119 125 127 136 160 163

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ZAHN COURT REPORTING NORFOLK (757) 627-6554 RICHMOND (804) 788-8899 (1) Pages 1 - 4

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58.	msung Electronics Co., Ltd., etc.		WINFCH 27, 2015
	Page 5	1	Page 7
1		1	reporter please swear in the witness.
2	EXHIBITS (Continued)	2	The state of the s
3	NO, DESCRIPTION PAGE	3	
4	23 Assignment 183	4	
5	24 Power of Attorney 186	5	
6	25 Amendment Transmittal Letter 189	6	
7	26 Patent 5,880,732 192	7	EXAMINATION
8	27 Patent Application 2002/0102998 193	8	BY MR. WILLIAMSON:
9	28 Notice of Allowance and Fee(s) Due 199	9	Q. Good morning. Can you please say and then
10	29 Utility Patent Application Transmittal 204	10	spell your name for the record.
11	30 Email dated June 18, 2005 from Ning Wang 208	11	
12	to Tiejun Wang	12	· · · · · · · · · · · · · · · · · · ·
13	31 Email dated September 11, 2005 from Ronald 209	13	
14	Wang to Ann Wang with attachment	14	
15	32 Patent 7,899,492 213	15	
16	33 Patent 7,957,733 222	16	
17	34 Provisional Application filed	17	
18	March 31, 2006	18	• •
19		19	
20		20	$\varphi$
21		21	
22		22	<i>Q"</i> ,
23		23	
24		24	that you're required to tell the truth in response to
25		25	all of my questions?
2.2.20.7074	Page 6	- Company	· Page 8
	•	and the same of th	A 37 Y 1.
1	(Defendants' Amended Notice of Fed. R.	1	
1	Civ. P. 30(b)(6) Deposition of Plaintiff Virginia	2	Would you if I grab a napkin over there?  O. Go ahead.
į.	Innovation Sciences, Inc. was marked Deposition Exhibit	3	That's the first rule. You got to be careful
1	Number 1.) THE VIDEOGRAPHER: We are now on record.	5	to remove that microphone.
5	The date today is March 27th, 2013 and the	6	THE WITNESS: Napkin.
6 7	time is 10:03 a.m.	7	BY MR. WILLIAMSON:
8	My name is Jason Levin, video specialist		
0		1 14	O And because we're here in a conference room in
۵		8	Q. And because we're here in a conference room in a law office, it seems like it's a bit less formal than
9	representing Zahn Court Reporting, 208 East Plume	9	Q. And because we're here in a conference room in a law office, it seems like it's a bit less formal than in a courtroom.
10	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.	9	a law office, it seems like it's a bit less formal than in a courtroom.
10	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia. This is the videotaped deposition of the	9	a law office, it seems like it's a bit less formal than
10 11 12	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences,	9 10 11	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took,
10	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation	9 10 11 12	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same
10 11 12 13	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences,	9 10 11 12 13	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.
10 11 12 13 14	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation Sciences, Incorporated versus Samsung, Civil Action	9 10 11 12 13 14	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.  Q. Okay. It's very important because the
10 11 12 13 14	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation Sciences, Incorporated versus Samsung, Civil Action Number 2:12-CV-00548-MSD-DEM.	9 10 11 12 13 14 15	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.  Q. Okay. It's very important because the official record of my questions and your answers is
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10 11 12 13 14 15 16 17 18	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation Sciences, Incorporated versus Samsung, Civil Action Number 2:12-CV-00548-MSD-DEM.  The court reporter is Marianne Holmes.  Will counsel please identify themselves for the record and state whom they represent.  MR. WILLIAMSON: Brett Williamson, O'Melveny &	9 10 11 12 13 14 15 16 17 18	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.  Q. Okay. It's very important because the official record of my questions and your answers is being taken down by a court reporter so that it's prepared in a written document, so you will need to answer my questions verbally rather than through nods or shakes of the heads or gestures. Do you understand
10 11 12 13 14 15 16 17 18 19	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation Sciences, Incorporated versus Samsung, Civil Action Number 2:12-CV-00548-MSD-DEM.  The court reporter is Marianne Holmes.  Will counsel please identify themselves for the record and state whom they represent.  MR. WILLIAMSON: Brett Williamson, O'Melveny & Myers, LLP for Samsung.  MR. WESTIN: Cameron Westin from O'Melveny & Myers for Samsung.	9 10 11 12 13 14 15 16 17 18 19 20	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.  Q. Okay. It's very important because the official record of my questions and your answers is being taken down by a court reporter so that it's prepared in a written document, so you will need to answer my questions verbally rather than through nods or shakes of the heads or gestures. Do you understand that?
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10 11 12 13 14 15 16 17 18 19 20 21 22 23	representing Zahn Court Reporting, 208 East Plume Street, Norfolk, Virginia.  This is the videotaped deposition of the 30(b)(6) witness for Virginia Innovation Sciences, Incorporated in the matter of Virginia Innovation Sciences, Incorporated versus Samsung, Civil Action Number 2:12-CV-00548-MSD-DEM.  The court reporter is Marianne Holmes.  Will counsel please identify themselves for the record and state whom they represent.  MR. WILLIAMSON: Brett Williamson, O'Melveny & Myers, LLP for Samsung.  MR. WESTIN: Cameron Westin from O'Melveny & Myers for Samsung.  MR. GROCHOCINSKI: Tim Grochocinski, Innovalaw	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	a law office, it seems like it's a bit less formal than in a courtroom.  However, because of the oath that you took, the answers that you give to me today will have the same force and effect as if you were giving them in a court of law. Do you understand that?  A. Yes, I do.  Q. Okay. It's very important because the official record of my questions and your answers is being taken down by a court reporter so that it's prepared in a written document, so you will need to answer my questions verbally rather than through nods or shakes of the heads or gestures. Do you understand that?  A. Yes, I do.

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A. And it also means that in the nonprovisional application, that MTSCM, this component can jointly achieve these functions that I just -- we just read, 3.1 through 3.4, with the other components in the system such as the mobile terminal.

6 Q. Okay. I understand your testimony. I appreciate that.

Looking back at the nonprovisional application, Exhibit 18.

At page 3549 through 3950, there are declarations by the inventors. Do you see those pages? It's page 3549 and 3550.

MR. WILLIAMSON: 3550.

THE COURT REPORTER: You said 39.

MR. WILLIAMSON: I did? All right. 3549 through 3550.

17 BY MR. WILLIAMSON:

- Q. Do you have those pages before you, Dr. Wang?
- 19 A. Yes, sir.

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Q

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- Q. Okay. Do you see that those that there's a declaration page and then a continuation page with a name of third inventor and name of fourth inventor?
- 23 A. Yes, sir.
- Q. Did you circulate the declaration to the other inventors, your brother Ronald, Dr. Halal and your

nal 1 O. Okay. Or you weren't?

Did you present Exhibit 21 to Dr. Halal forhis signature?

MR. GROCHOCINSKI: Well --

THE WITNESS: I don't think so. I think my attorney sent it to him.

7 BY MR. WILLIAMSON:

8 Q. Okay. I'm sorry. My question may have been 9 unclear.

I asked if you were involved at all in obtaining Dr. Halal's signature on this declaration, Exhibit 21.

- A. Yes.
- Q. You were involved.How were you involved?
  - A. I think I was, according to what I recall, I think that I was copied, I was copied by my attorney and by Professor Halal for their communication related with this signature.
  - Q. If you will look at his signature on that page, page 3 of Exhibit 21 and then also look at what purports to be his signature on page 3549 in the nonprovisional application declaration, Exhibit 18, would you agree with me that those are different signatures?

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Page 180

- 1 father Ximing Wang?
  - A. You mean for their signature?
- з Q. Yes.
- 4 A. Yes, sir.
- 5 Q. Okay. Did you do it by mail or do it in 6 person?

Can you explain to me how you obtained the signatures of the co-inventors on the declaration?

- A. I don't remember.
- 10 Q. Okay. Do you remember how Mr. Halal's signature was obtained?
- 12 A. Sorry, I don't.

(Declaration of William E. Halal was marked Deposition Exhibit Number 21.)

15 BY MR. WILLIAMSON:

Q. We've marked as Exhibit 21 a copy of the declaration of William Halal in support of VIS' response in opposition to Samsung's motion to transfer venue of this case to the District of New Jersey.

And on the third page of that declaration is a signature that purports to be Dr. Halal's signature.

Did you -- were you involved at all in obtaining Dr. Halal's signature on this declaration, Exhibit 21?

A. Yes, sir.

MR. GROCHOCINSKI: Objection. Calls for speculation, lack of foundation.

3 BY MR. WILLIAMSON:

- 4 Q. You can go ahead and answer.
- 5 A. I'm sorry, what's your question?
- 6 Q. Would you agree with me that those look like 7 different signatures?
  - A. No, I don't.
  - Q. You think that those are those signatures
- 10 are look like they are written by the same person?
- 11 A. I believe those signatures was signed by the 12 same person.
  - Q. Okay. Do you have any understanding of why, for instance, in Exhibit 18 on page 3549 --
  - A. 18?
- 16 Q. Yes.
  - -- it's missing the middle initial E from the signature?
  - A. No, I don't.
- Q. But your testimony here today is that you understand that Dr. Halal signed personally both Exhibit 18 on the declaration page and Exhibit 21, to the best of your knowledge?
- 24 A. Yes, sir.
- Q. Staying on Exhibit 18 which is the

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Sar	nsung Electronics Co., Ltd., etc.		March 27, 2013
	Page 181		Page 183
-	nonprovisional application, there are signatures by four	1	and we're going to be at that point, too.
1		2	Why don't we go ahead and take our break now,
2	inventors: yourself, Ronald, Dr. Halal and your father	1	and then we'll try to continue and then finish
3	Ximing Wang.	3	
4	Why was your cousin Tiecheng Wang not listed	4	through six.
5	as an inventor on the nonprovisional application?	5	THE VIDEOGRAPHER: We're going off record at
6	A. According to U.S. patent law, he shouldn't be	6	4:13 p.m.
7	named as a co-inventor of this invention.	7	(A recess was taken from 4:13 p.m. until
8	Q. What happened between the time you filed the	8	4:29 p.m.)
9	non the provisional application and the	9	(Assignment was marked Deposition Exhibit
10	nonprovisional application that led you to believe that	10	Number 22.)
11	your cousin was not an inventor on the inventions in the	11	(Assignment was marked Deposition Exhibit
12	nonprovisional application?	12	Number 23.)
13	MR, GROCHOCINSKI: And I'm just going to	13	THE VIDEOGRAPHER: We're going back on record
14	instruct you not to disclose any communications you	14	at 4:29 p.m.
15	had with your lawyer.	15	This is the start of disk number 5 in the
16	But subject to that restriction, you can	16	30(b)(6) deposition of VIS.
17	answer the question.	1.7	BY MR. WILLIAMSON:
í	THE WITNESS: I talked with my attorney.	18	Q. Dr. Wang, you understand you're still under
18	BY MR. WILLIAMSON:	19	oath?
19	Q. Okay. So don't give me any of the substance	20	A. Yes, sir.
20	of that. But that was the, that was the answer to my	21	MR. WILLIAMSON: Tim, I marked 22 and 23.
21		22	MR. GROCHOCINSKI: Got it.
22	question that I asked, so I don't want any further	1	BY MR. WILLIAMSON:
23	elaboration.	23	
24	Were there any is there any subject matter	24	Q. Dr. Wang, I've asked the court reporter to
	that are tallines as a for all all and the flow		
25	that you believe was included in the non in the	25	place in front of you here what we've now premarked as
	that you believe was included in the non in the  Page 182	25	Page 184
25	Page 182	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Page 184
25	Page 182 provisional application relating to the inventive	1	Page 184 Exhibits 22 and 23 which are two assignment documents.
25 1 2	Page 182 provisional application relating to the inventive contribution of Tiecheng Wang that was later not	1 2	Page 184 Exhibits 22 and 23 which are two assignment documents. Let me ask you first about Exhibit 22, VIS
25 1 2 3	Page 182 provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?	1 2 3	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS  1311 through 1312, which on the second page looks like
1 2 3 4	Page 182 provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?  A. I'm sorry?	1 2 3 4	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS  1311 through 1312, which on the second page looks like it was executed on January 7th, 2011 and January 8th,
25 1 2 3 4 5	Page 182 provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?  A. I'm sorry? Q. Yes.	1 2 3 4 5	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS  1311 through 1312, which on the second page looks like it was executed on January 7th, 2011 and January 8th, 2011 for the assignment by each of the inventors under
1 2 3 4 5 6	Page 182  provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?  A. I'm sorry?  Q. Yes.  Was there any inventive contribution by your	1 2 3 4 5	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS  1311 through 1312, which on the second page looks like it was executed on January 7th, 2011 and January 8th, 2011 for the assignment by each of the inventors under the '341 application which we've looked at as the
1 2 3 4 5 6 7	Page 182  provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?  A. I'm sorry?  Q. Yes.  Was there any inventive contribution by your cousin Tiecheng Wang that's disclosed in the provisional	1 2 3 4 5 6	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS 1311 through 1312, which on the second page looks like it was executed on January 7th, 2011 and January 8th, 2011 for the assignment by each of the inventors under the '341 application which we've looked at as the nonprovisional application from which the first four
1 2 3 4 5 6 7 8	Page 182  provisional application relating to the inventive contribution of Tiecheng Wang that was later not included in the nonprovisional application?  A. I'm sorry?  Q. Yes.  Was there any inventive contribution by your cousin Tiecheng Wang that's disclosed in the provisional application that was not later included in the	1 2 3 4 5 6 7 8	Page 184  Exhibits 22 and 23 which are two assignment documents.  Let me ask you first about Exhibit 22, VIS 1311 through 1312, which on the second page looks like it was executed on January 7th, 2011 and January 8th, 2011 for the assignment by each of the inventors under the '341 application which we've looked at as the nonprovisional application from which the first four patents in suit claim priority.
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Page 282 Page 280 explain why the language added by VIS in the proposed 1. patent. 1 2 amendment didn't sufficiently distinguish Cohen? 2 The third line down lists U.S. Patent I'm sorry? Number 6,970,127 to Rakib. Do you see that? 3 3 Yes, sir. Q. Yes. 4 A. 4 Do you remember that reference, the Rakib Was there ever -- do you recall any 5 Q. 5 statements by the examiner either in your personal reference? 6 interviews as part of the prosecution of the 7 A. 7 MR. WILLIAMSON: 38 now, right? nonprovisional application or in any telephonic 8 8 THE COURT REPORTER: Yes. conversations as to why the amendment offered by VIS in 9 9 the response to Office Action that we looked at in MR. WILLIAMSON: Yes, Exhibit 38. 10 10 (Patent 6,970,127 was marked Deposition 11 Exhibit 36 was not sufficient to distinguish Cohen over 11 12 VIS' invention? 12 Exhibit Number 38.) 13 A. I don't remember. 13 BY MR. WILLIAMSON: The court reporter has marked as Do you have any idea where the language Q. 14 Q. 14 that the examiner added in the examiner's amendment as Exhibit 38 a copy of the Rakib patent U.S. 6,970,127 that's listed on the face of the '492 patent. part of the notice of allowance in Exhibit 37 came from? 16 16 And this copy of Rakib was produced by I think it's from the specification of 17 17 VIS in response to Samsung's request for production at the patent application. 18 18 document control numbers 14 through 41. What leads you to think that? O. 19 19 Let me first ask you about 14, page 14 Because it's my knowledge that every 20 20 which is the first page of the Rakib patent. claim in the issued patent or allowed claims must be 21 21 Do you have that in front of you, fully supported by the specification of the patent 22 22 application. Dr. Wang? 23 23 A. Yes, sir. Q. I understand your answer. 24 24 At the last part of the abstract, the My question was actually slightly 25 Q. 25 Page 283 Page 281 different than it was. last approximately five or six lines, there's a line 1 ٦ written in the right-hand margin, and I believe the word Do you know where this claim language 2 2 "core," do you see that? came from, this specific claim language that was added 3 3 Yes, sir. Α. by the examiner? 4 4 Is that your handwriting? Q. That I need to read the specification. 5 5 Α. Okay. If I could ask you to then look Yes, sir. 6 6 Α. Okay. When did you write the word "core" back at another exhibit from yesterday, it's Exhibit 32, 7 О. 7 on this copy of the Rakib patent? the issued '492 patent. 8 Sorry, sir, I don't recall. 9 Α. So can I, can I close everything? 9 I think so, yes. If we need to go back 10 Okay. Do you remember why you wrote the 10 to that pile, I will -- I'll let you know. word "core" in the right-hand margin of the face page of 11 1.1 At this point, there's no order in this the Rakib patent? 12 12 A. My best recollection would be I thought stack. It may take me -- it take us a little bit longer 13 13 it is the major idea of this patent. to find --14 14 Okay. If you would then turn in We'll blame Mr. Grochocinski for that. 15 15 Q. Exhibit 38 to page 40, VIS 40, which is -- contains MR. GROCHOCINSKI: That's right. 16 16 column 34 of the Rakib patent, and do you see a 17 17 There. bracketed handwritten notation in the right-hand column 18 THE WITNESS: Thank you. 18 next to claim 1 of the Rakib patent and then there's 19 BY MR. WILLIAMSON: 19 three words written in the margin "caution important 20 Q. Do you have Exhibit 32 in front of you? 20 art"? Do you see that? 21 A. Yes, sir. 21 Yes, sir. Q. Let me ask you to look at the second page 22 A. 22 Okay. Did you write those words? of Exhibit 32 which is the continuation of the face page 23 Q. 23 where there's a list, a continued listing of U.S. patent 24 Α. I think so, sir. 24 Okay. Do you remember when you wrote documents that were cited in the prosecution of the 25 Q. 25

Virginia Innovation Sciences, Inc. v.

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Samsung Electronics Co., Ltd., etc. Page 284 Page 286 those words? with, did you believe that Rakib was related to the 1 inventions that you and your co-inventors were seeking 2 A. No, sir. patents on and that issued as the six patents asserted Q. Do you have any recollection at all 3 against Samsung in this case? whether it occurred during the prosecution of any of the 4 4 Sir, could you repeat your question? patents in suit being asserted against Samsung? 5 A. Sure. I'm sorry? 6 Q. 6 A. Did you believe when you gave a copy of Do you have any recollection at all of 7 7 the Rakib patent to your patent prosecution attorney, 8 when you would have written that down, whether it was 8 that the Rakib reference was related to the inventions 9 during the prosecution of the patents in suit against 9 Samsung, that is, before they were issued? 10 that you and your co-inventors were seeking patents on 10 No. sir. as evidenced by the six patents being asserted against 11 A. Q. What's the most recent it could have been Samsung in this case? 12 12 A. I give this art as soon as I realized that you wrote those words down? 13 13 this art to our patent prosecutor --I'm not sure, sir. A. 14 14 Q. Yeah. Okay. So you don't have any 15 Q. 15 -- is to let him decide what to do with recollection? 16 16 this art if the content is related enough to the patent None for me to make certain. 17 17 Α. application. 18 And what did you mean by "caution 18 Q. But you made some determination that it 19 important art"? 19 was possible that the Rakib patent was related to the My best guess would be at that moment 20 20 patent applications, correct? where I wrote it, where I read it, I think that's 21 21 22 important art. 22 A. Correct. You didn't give every single article that Q. Do you recall whether it was the 23 Q. 23 you read or patent that you came across while the patent applicant that disclosed the Rakib patent to the 24 Patent Office or whether it was a reference that was applications were being prosecuted to your patent Page 285 Page 287 prosecuting attorney, correct? located and cited for the first time by the examiner? That's correct. I believe that as soon as I read this 2 2 art, I give it to my prosecutor. Do you know whether Mr. Tobin disclosed 3 3 the Rakib patent to the Patent Office? Q. Okay. Why did you do that? 4 4 Because he was responsible for That I need to look at the prosecution 5 A. 5 communicating with the Patent Office. 6 history. 6 Did you believe that Rakib was material 7 Okay. But without looking at the 7 prosecution history, you don't recall one way or the to the inventions that you and your co-inventors were 8 8 9 other? claiming? 9 MR. GROCHOCINSKI: Objection. Calls for No, sir. 10 Α. 10 a legal conclusion. Q. Okay. 11 11 THE COURT REPORTER: 39. BY MR. WILLIAMSON: 12 12 MR. WILLIAMSON: 39? Okay. I'm just asking for your belief when you 13 13 (Document titled "System for Display of gave it to your patent attorney. 14 14 Portable IT Devices" was marked Deposition Exhibit A. I don't understand the meaning of 15 15 Number 39.) 16 "material" that you use in this question. BY MR. WILLIAMSON: 17 Sure. 17 Dr. Wang, I've asked the court reporter You testified that you gave a copy of the 18 18 Rakib patent to your patent prosecution counsel. 19 to hand you what's been marked as Exhibit 39 -- oh, my 19 And I'm asking you whether in giving a bad -- which is a document produced by VIS in response 20 20 to Samsung's request for production marked page numbers copy of Rakib to your patent prosecution counsel, did 21 21 3814 through 3833. This is a document that was recently you determine that it was material? 22 produced just before your deposition, so I'm taking it a I understand that you don't understand 23 little bit out of order from some of the discussions we what I mean by "material," so I just want to clarify.

> ZAHN COURT REPORTING RICHMOND (804) 788-8899 NORFOLK (757) 627-6554

Did you believe that -- well, to start

had yesterday.

25

(9) Pages 284 - 287

24

25

Page 1

WILLIAM HALAL

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

 $\mathbb{V}$  .

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

>

VIDEOTAPED DEPOSITION OF
WILLIAM E. HALAL, Ph.D
Washington, D.C.
Wednesday, July 24, 2013

U.S. LEGAL SUPPORT (714) 486-0737

## William Halal, Ph.D.

1		T	
1	WILLIAM HALAL	1	WILLIAM HALAL
2		2	EXHIBITS
3	Wednesday, July 24, 2013	3	EXHIBIT NUMBER DESCRIPTION PAGE NO.
4	9:00 a.m.	4	No. 135 - subpoena 23
5		5	No. 136 - subpoena 23
6	7 1	б	No. 137 - 00410237 32
7	Videotaped Deposition of WILLIAM E. HALAL, Ph.D,	7	No. 138 - TechCast printout 41
8	taken by Defendant at the offices of O'Melveny &	8	No. 139 - TechCast Expert Panel 50 No. 140 - Overview for New Visitors 56
9	Myers LLP, 1625 I Street Northwest, Washington, D.C.,	9	
10	before Randi J. Garcia, Registered Professional	10	No. 141 - Smart TV and everything else 57 No. 142 - Global Brain 50 Percent 61
11	Reporter, and Notary Public in and for the District	12	NO. 142 - Choose Brain 30 refeeld 01
13	of Columbia, beginning at approximately 9:00 a.m. when were present on behalf of the respective	13	
14	*	14	
15	parties:	15	(All exhibits attached to original transcript.)
16		16	(An exhibits attached to original transcript.)
17		17	
18		18	
19		19	
20	•	20	
21		21	
22		22	
23		23	
24		24	
25		25	
•	Page 2		Page 4
1	THE TEAD ATTAIL AT	1	WILLIAM HALAL
2	WILLIAM HALAL APPEARANCES:	2	THE VIDEOGRAPHER: Good morning. We are
3	For the Plaintiff:	3	on the record. This is the recorded video
4	TIMOTHY E. GROCHOCINSKI, ESQUIRE INNOVO LAW, PC	4	deposition of Dr. William Halal in the matter
5	1900 Ravinia Place,	5	of Virginia Innovation Sciences Incorporated
	Orland Park, Illinois 60462	6	versus Samsung Electronics Company Limited,
6	708.675.1974	7	Samsung Electronics America Incorporated,
7	teg@innovalaw.com	8	Samsung Telecommunications America, LLC taken
•	For the Defendants:	9	on behalf of the Defendant Samsung Electronics
8	BRETT J. WILLIAMSON, ESQUIRE	10	Company Limited.
9	O'Melveny & Myers LLP 610 Newport Center Drive	11	This deposition is taking place at
	•	12	O'Melveny & Myers at 1625 I Street, Northwest
10	Newport Beach, California 92660	13	Washington, D.C. on Wednesday, July 24, 2013
11	949.823.7987 bwilliamson@omm.com	14	at 9:00 a.m.
11 12	иминашэонивонин.сош	15	My name is Ellen Hebert. I am the
1.3		16	videographer with U.S. Legal Support located
14 15	Ellen Hebert, Videographer	17	at 1230 Columbia Street, Suite 400, San Diego
15 16	INDEX	18	California 92101.
17	WITNESS Page	19	Video and audio recording will be taking
		20	place unless all counsel have agreed to go
	By Mr. Williamson 5 By Mr. Grochocinski 102	21	off the record.
21		22	Would all present please identify
22	остородова и постородова и	23	themselves beginning with the witness.
23 24		24	THE WITNESS: William Halal.
25		25	MR. GROCHOCINSKI: Tim Grochocinski on
	Page 3		Page 5

2 (Pages 2 to 5)

U.S. LEGAL SUPPORT (714) 486-0737

## William Halal, Ph.D.

1	WILLIAM HALAL	1	WILLIAM HALAL
2	signature on the second page?	2	Q We talked about the utility patent
3	A Oh, yes. That is definitely my	3	application. If I could ask you to turn to 3549
4	signature. No question about it.	4	towards the end of the document.
5	MR, WILLIAMSON: Let's go off the record	5	A Okay.
6	for a second, because I am now searching for a	6	Q At the bottom of that there is a box, a
7	document.	7	name of second inventor. And it has your name.
8	THE VIDEOGRAPHER: Going off the record.	8	A Right.
9	The time is 11:20 a.m.	9	Q It also has the address of 3342 Maud
10	(Thereupon, a brief recess was taken.)	10	Street.
11	THE VIDEOGRAPHER: Going back on the	11	A Yes.
12	record. The time is 11:21 a.m.	12	Q Did you authorize Ann Wang to sign your
13	BY MR. WILLIAMSON:	13	name on that document?
14	Q Okay. I apologize if I asked you this	14	A Yes. We did that often, just for
15	question already, but I am going to show you	15	convenience. Rather than make a trip to her
16	Exhibit 21, which is a declaration of William	16	home in Virginia, I asked if she could sign for
17	Halal in support of Virginia Innovation	17	me,
18	Science's Response in Opposition to Samsung's	18	Q So you remember in particular in this
19	Motion to Transfer Venue to the District of New	19	instance telling her she was authorized to sign
20	Jersey.	20	your name to the document?
21	This is what I may have already asked	21	A Well, we did that often. I don't
22	you, whether you still reside at 3342 Maud	22	remember this particular document, but that
23	Street, Northwest in Washington, D.C.?	23	happened a lot.
24	A Yes.	24	Q But you will agree with me that that is
25	Q Do you have any plans to move from that	25	not your signature?
	Page 90		Page 92
-	WILLIAM HALAL	1	WILLIAM HALAL
1 2	address between now and the end of the calendar	2	A That is not my signature, no.
3	year?	3	Q Do you remember anything more in
4	A No.	4	particular relating to the signature on
5	Q Are you anticipating taking any long	5	Exhibit 18 in terms of giving authorization to
6	trips between now and the end of the calendar	6	Ms. Wang?
7	year?	7	A Do I remember anything in particular?
8	A Nothing more than a week.	8	Q I think you testified that it was
9	Q Turning to the last page of Exhibit 21.	9	customary practice in connection with these
10	Is that your signature?	10	patents for you to authorize her to sign your
11	A Yes.	11	name. But do you remember specifically doing so
12	Q Do you recall signing this document at	12	with respect to the document that is marked as
13	some point after the filing of this lawsuit?	13	Exhibit 18?
14	A Vaguely.	14	A I couldn't follow all of the
15	Q Did you understand that you were being	15	machinations of this thing. I just did what she
16		16	told me to do, really. As I said, I left it to
17		17	her and Ron.
18	, , , , , , , , , , , , , , , , , ,	18	Q With respect to what you just testified
19		19	to, with respect to Ann and Ron, do you
20		20	understand that they were the people primarily
21	, , , , , , , , , , , , , , , , , , , ,	21	responsible for applying for patents?
			•
22	A Yes, ves, ves,	22	A Yes.
	,, , , , , , , , , , , , , , , , , , , ,	22 23	A Yes.  O Were you involved in any way in the
22 23 24	Q Do you still have Exhibit 18 in front of		Q Were you involved in any way in the
	Q Do you still have Exhibit 18 in front of you?	23	

24 (Pages 90 to 93)

## William Halal, Ph.D.

r			
1	WILLIAM HALAL	1	WILLIAM HALAL
2	my questions, subject to anything you raise.	2	CERTIFICATE
3	CROSS-EXAMINATION	3	DISTRICT OF COLUMBIA
4	BY MR. GROCHOCINSKI:	4	
5	Q Professor Halal, did you contribute to	5	l, the undersigned authority, hereby
6	the patents-in-suit?	6	certify that the foregoing transcript, page 1
7	A Yes.	7	through 103 is a true and correct transcription of
8	Q Do you believe that you were properly	8	the deposition of William E. Halal, Ph.D, taken
9	named as a coinventor on the patents-in-suit?	9	before me at the time and place set forth on the
10	MR. WILLIAMSON: Object. Leading.	10	title page hereof.
11	MR, GROCHOCINSKI: You can answer.	11	I further certify that said
12	THE WITNESS: Should I answer this or not?	12	witness was duly sworn by me according to law.
13	BY MR. GROCHOCINSKI:	13	I further certify that I am not of
14	Q You can answer the question.	14	counsel to any of the parties to said cause or
1.5	A Yes, I did.	1.5	otherwise interested in the event thereof.
16	Q Do you have any reason to believe you	16	IN WITNESS WHEREOF I hereunto set my
17	should not have been named as a coinventor?	17	hand and affix official scal this 3rd day of
18	A No.	18	August, 2013.
19	Q If I can just ask you to take out	19	
20	Exhibit 18 very briefly. That is the Utility	20	
21	Patent Application.	21	ARTHUR CO. C.
22	A I got it.	22	RANDI GARCIA, COURT REPORTER, RPR
23	Q If you can turn to page 3549. It's the	23	NOTARY PUBLIC
24	page with well, your name and signature on	24	
25	it,	25	Du 108
ļ	Page 102		Page 104
1	WILLIAM HALAL	1	WILLIAM HALAL
2	A Yes.	2	I CERTIFY THIS IS A TRUE AND
3	Q Did you authorize Dr. Ann Wang to sign	3	ACCURATE TRANSCRIPT FURTHER DEPONENT SAYETH NOT
4	your name on Exhibit 18?	4	32 (33)
5	A Yes.	5	
6	Q Do you have any reason to believe that	6	THE WITNESS
7	you didn't authorize her to sign your name?	7	
8	A No.	8	
9	MR. GROCHOCINSKI: That is all I have.	9	
10	MR. WILLIAMSON: Nothing further from me.	10	DISTRICT OF COLUMBIA
11	THE WITNESS: We are done?	11	Sworn and subscribed to before me this
12	MR. WILLIAMSON: We are.	12	day of
13	THE WITNESS: That was painless. It was	13	
14	kind of fun.	14	
15	THE VIDEOGRAPHER: This concludes today's	15	Personally knownor
1.6	videotaped deposition of Dr. William Halal.	16	) D
17	Going off the record. The time is 11:47 a.m.	17	
18		18	
19	(Whereupon, at 11:47 a.m., the deposition	19	
20	was concluded.)	20	Notary Public in and for
21		21	the District of Columbia at
22		22	Large. My Commission Expires
23		23	July 12, 2016
24		24	
25		25	n
1	Page 103		Page 105

27 (Pages 102 to 105)

U.S. LEGAL SUPPORT (714) 486-0737

Attorney Docket No.: 14800.1001A

Alexandria, VA 22313-1450

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 7,899,492	)	
In the name of: Tiejun Ronald Wang et al.	)	Examiner: Brandon J. Miller
Appln. No. 11/165,341	) :	TC Art Unit: 2617
Issued: March 1, 2011	)	
For: METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS	) : )	
To: Commissioner for Patents P.O. Box 1450		

#### **DECLARATION OF WILLIAM E. HALAL**

- 1. I am the same William E. Halal, Ph.D., who made and executed the Declaration Of Professor William E. Halal In Support Of Plaintiff Virginia Innovation Sciences, Inc.'s Motion To Strike Defendants' Thirteenth Counterclaim, Or In The Alternative, Motion For Summary Judgment On Defendants' Thirteenth Counterclaim Related To Inequitable Conduct, dated August 13, 2013, in the case of *Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd.*, Case No. 2:12-cv-00548 (E.D. Va.) ("Halal Litigation Declaration"). A copy of the Halal Litigation Declaration accompanies the present Declaration and is incorporated by reference herein as if set out in full. I adopt and ratify all statements in the Halal Litigation Declaration.
- 2. I was correctly named as a co-inventor on United States Patent Application No. 11/165,341 ("the 341 application"), which issued as above-identified U.S. Patent No. 7,899,492 ("the '492 patent").
- 3. In June 2005 I received from Dr. Tiehong (Ann) Wang and read the DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) ("original '341 application declaration"), a copy of which accompanies the present Declaration. I agreed with the entire contents of the original '341 application declaration. I then requested that Dr. Ann Wang sign the original '341 application declaration on my behalf and authorized her to do so. I believed this to be an acceptable manner of

having my signature affixed to the original '341 application declaration. I am not a patent practitioner and I did not consult patent counsel before requesting Dr. Ann Wang to affix my signature to the original '341 application declaration on my behalf. I had no knowledge at the time that this might be deemed by some to conflict with any technical requirements of United States patent laws, or any preferred practice of the United States Patent and Trademark Office ("USPTO"). Further circumstances surrounding the authorized execution on my behalf by Dr. Ann Wang of the original '341 application declaration are set forth at pages 90-93 and 102-103 of the transcript of the deposition of William E. Halal, Ph.D., on July 24, 2013, taken in the *Virginia Innovation Sci., Inc. v. Samsung Electronics Co., Ltd.*, litigation referred to above. Copies of those pages of the deposition transcript accompany the present Declaration.

- 4. In authorizing Dr. Ann Wang to sign my signature on the original '341 application declaration, at no time did I in any way intend to deceive or mislead the USPTO. I believed at the time that having Dr. Wang enter my signature on the original '341 application declaration on my behalf was equivalent to me signing it personally. Further, I expected the USPTO to treat it as such, since at all times I was willing to sign the original '341 application declaration as an original and first inventor, along with the other individuals named on the original '341 application declaration, of the subject matter claimed in the '341 application. At the time I authorized Dr. Ann Wang to sign the original '341 application declaration on my behalf, I did not have a printer or a scanner at my home and therefore a personal meeting with Dr. Ann Wang would have been required for me personally to affix my signature to the original '341 application declaration. Accordingly, I asked Dr. Ann Wang to sign and date the original '341 application declaration on my behalf as a courtesy to me so that I would not have to drive through traffic from my residence in Washington, DC, to Arlington, Virginia, where I understood Dr. Ann Wang was assembling the necessary papers for filing the '341 application.
- 5. About two months after the '341 application was filed, I personally signed a POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM on September 14, 2005, on which I confirmed that I was correctly named, along with the other individuals named on the original '341 application declaration, as an original and first inventor of the subject matter that was claimed in the

'341 application. A copy of the POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM accompanies the present Declaration.

6. At the time in June 2005 and for all times thereafter, I have always intended for my signature entered on the original '341 application declaration on my behalf by Dr. Ann Wang to be binding upon me in all respects as if I had entered it myself. I further at this time expressly and formally ratify and adopt as my own the signature entered by Dr. Ann Wang on the original '341 application declaration. Strictly as a cautionary measure, to ensure that the '341 application meets all technical requirements of United States patent laws and accords with all relevant practices of the USPTO, I have on today's date executed a Supplemental Declaration for Utility or Design Patent Application (37 CFR 1.67), which I understand will be submitted to the USPTO in the '492 patent.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title XVIII of United States Code, and that such willful false statements may jeopardize the validity of the patent in connection with which this declaration is submitted.

Date: 0273015

William E. Halal, Ph.D.

#### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

Case No. 2:12-CV-00548-MSD-DEM

v.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

DECLARATION OF PROFESSOR WILLIAM E. HALAL IN SUPPORT OF PLAINTIFF VIRGINIA INNOVATION SCIENCES, INC.'S MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

- I, Professor William E. Halal, herby, declare as follows:
- 1. I am over the age of eighteen (18) and am personally familiar with and have personal knowledge of the facts stated in this declaration. If called as a witness, I could and would testify competently to each fact stated herein.
- 2. This declaration is made in support of Virginia Innovation Sciences, Inc.'s Motion to Strike Defendants' Thirteenth Counterclaim or, in the alternative, Motion for Summary Judgment on Defendants' Thirteenth Counterclaim related to Inequitable Conduct.
- 3. I am a named inventor of United States Patents No. 7,899,492 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,050,711 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,145,268 entitled

"Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,224,381 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 7,957,733 entitled "Method and Apparatus for Multimedia Communications with Different User Terminals", and 8,135,398 entitled "Method and Apparatus for Multimedia Communications with Different User Terminals." (hereinafter referred to as "the asserted patents").

- 4. I was personally involved in the creation of the patented inventions disclosed in the asserted patents and the prosecution of those patents.
- 5. I requested that Ann Wang sign the '341 application on my behalf and authorized her to do so. I believed this to be acceptable.
- 6. Ann did this as a courtesy to me so I would not have to drive in the Washington, D.C. traffic to Virginia to meet her to sign the declaration.
- 7. In authorizing Ann Wang to sign my signature on the declaration, at no time did I intend to deceive or mislead the United States Patent and Trademark Office ("PTO").
- 8. I was correctly named as a co-inventor on the '341 application, which issued as the '492 patent.
  - 9. I contributed to at least one claim in the '492 patent.
- 10. During the prosecution of the '492 patent, I personally signed the Power of Attorney form appointing the law firm Collier Shannon Scott as prosecution counsel.
- During the prosecution of the '492 patent, I personally signed a Revocation of Power of Attorney and New Power of Attorney appointing the law firm Rader, Fishman & Grauer PLLC as prosecution counsel.

12. I personally signed the declaration of inventorship submitted in conjunction with U.S. Patent Application No. 11/802,418, which was issued as the '733 patent, and U.S. Patent Application No. 13/067,079, which was issued as the '398 patent.

I declare under penalty of perjury that the foregoing is true and accurate.

DATED: August 13, 2013

Respectfully submitted

Professor William E. Halal

PTO/S8/01 (04-05) Approved for use through 07/31/2006, OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it centains a valid OMB control number. Attorney Docket Number DECLARATION FOR UTILITY OR tor Tiejun (Ronald) Warg First Named Inventor DESIGN PATENT APPLICATION (37 CFR 1.63) Application Number Filing Date Declaration Declaration Submitted after Initial Submitted OR Art Unit Filing (surcharge With Initial (37 ČFR 1.16 (e)) Filing Examiner Name required) I hereby declare that: Each Inventor's residence, mailing address, and citizenship are as stated below next to their name. I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled: Tiejun (Rondd) Wang

Tiehong (Ann) Wang

William E. Halal Ximing Wang

the specification of which Mobile Terminal Signal Conversion for External Display Tigiun ( Rondd ) Wang V is attached hereto OR as United States Application Number or PCT International was filed on (MM/DD/YYYY) and was amended on (MM/DD/YYYY) (if applicable). Application Number I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed. Priority Certified Copy Attached? Foreign Filing Date Prior Foreign Application Country (MM/DD/YYYY) Not Claimed YES Number(s) Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

This collection of Information is required by 35 U.S.C. 115 and 37 CFR 1.83. The information is required to obtain or retain a herefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.31 and 1.14. This collection is estimated to take 21 inhutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Then will vary depending upon the inharmatic rase. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Tradomark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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	PTO/SB/01 (04-05) Approved for use through 07/31/2006, OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respons  DECLARATION — Utility or De	
Direct all Correspondence to:  The address associated with Customer Number:	OR V Correspondence address below
Name Tiehong Wang	
Address 1600 S. Jace St. +	# 1406
City Arlington	State VA ZIP 22202
Country Telephone 703.68.	5.4051 annwang66@yahoac
I hereby declare that all statements made herein of my own know and belief are believed to be true; and further that these stat statements and the like so made are punishable by fine or imprise false statements may jeopardize the validity of the application or ar	conment, or both, under 18 U.S.C. 1001 and that such willful
NAME OF SOLE OR FIRST INVENTOR:  Given Name (first and middle [if any])	petition has been filed for this unsigned inventor Family Name or Surname
Tiejus ( Ronald )	Wang
Inventor's Signature	Defe 06/24/2005
Residence: City  La Jolla  State  CA	Country Citizenship P. R. Cking
Mailing Address 9162 Regents Rd, A	pt I
City La Jolla State CA	Zip 92037 Country USA
NAME OF SECOND INVENTOR:	A petition has been filed for this unsigned inventor Family Name or Surname
Given Name (first and middle [if any]) William E.	Halal
Inventor's Signature William Halal	Date 06/24/2005
Residence: City State Waskington DC	Country Citizenship USA USA
Mailing Address	'W
3342 Maud St N	Zip Country
Washington D.C.	20016 USA
Additional inventors or a legal representative are being named on the	supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.

[Page 2 of 2]

NAME OF THIRD INVENTOR :

Tiehong (Ann) Wang

Residence: Arlington VA

Citizaship: China

Mailing Address: 1600 S. Jege St. # 1406

Arlington VA. 20000. USA

Signostuse: 3 Date: 06/24/2005

NAME OF FOURTH INVENTOR:

Ximing Wang

Residence: Beijing china

Citizenship: China

Mailing Address: Beijng Buiness & Technology Univ. Building # A2. Rm 134

Beijing . China 100037

Signature: Timing Many Date: 06/10/2005

VIS-001822

Page 1

WILLIAM HALAL

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

 $\nabla$ .

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

X

VIDEOTAPED DEPOSITION OF

WILLIAM E. HALAL, Ph.D

Washington, D.C.

Wednesday, July 24, 2013

U.S. LEGAL SUPPORT (714) 486-0737

## William Halal, Ph.D.

I			
1	WILLIAM HALAL	1	WILLIAM HALAL
2		2	EXHIBITS
3	Wednesday, July 24, 2013	3	EXHIBIT NUMBER DESCRIPTION PAGE NO.
4	9:00 a.m.	4	No. 135 - subpoena 23
	9.00 a.m.	5	No. 136 - subpoena 23
5		6	No. 137 - 00410237 32
6		į	2107.421
7	Videotaped Deposition of WILLIAM E. HALAL, Ph.D,	7	1.1.1.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2
8	taken by Defendant at the offices of O'Melveny &	8	110. 1.22
9	Myers LLP, 1625 I Street Northwest, Washington, D.C.,	9	No. 140 - Overview for New Visitors 56
10	before Randi J. Garcia, Registered Professional	10	No. 141 - Smart TV and everything else 57
11	Reporter, and Notary Public in and for the District	11	No. 142 - Global Brain 50 Percent 61
12	of Columbia, beginning at approximately 9:00 a.m.	12	
13	when were present on behalf of the respective	13	
14	parties:	14	
15	pur trad.	15	(All exhibits attached to original transcript.)
16		16	
		17	
17		18	
18		19	
19			
20		20	
21		21	
22		22	
23		23	
24		24	
25		25	
	Page 2		Page 4
	AND	1	WILLIAM HALAL
1	WILLIAM HALAL APPEARANCES:	1	THE VIDEOGRAPHER: Good morning. We are
3	For the Plaintiff:	2	
4	TIMOTHY E. GROCHOCINSKI, ESQUIRE	3	on the record. This is the recorded video
	INNOVO LAW, PC	4	deposition of Dr. William Halal in the matter
5	1900 Ravinia Place,	5	of Virginia Innovation Sciences Incorporated
1 -	Orland Park, Illinois 60462	6	versus Samsung Electronics Company Limited,
6	708.675.1974 teg@innovalaw.com	7	Samsung Electronics America Incorporated,
7	C5Commovativi.vom	8	Samsung Telecommunications America, LLC taken
	For the Defendants:	9	on behalf of the Defendant Samsung Electronics
8	BRETT J. WILLIAMSON, ESQUIRE	10	Company Limited.
1	O'Melveny & Myers LLP	11	This deposition is taking place at
9	610 Newport Center Drive 17th Floor	12	O'Melveny & Mycrs at 1625 I Street, Northwest
10	Newport Beach, California 92660	13	Washington, D.C. on Wednesday, July 24, 2013
	949.823.7987	14	at 9:00 a.m.
11	bwilliamson@omm.com	ş	My name is Ellen Hebert. I am the
12	AT CA DESCENT.	15	
13 14	ALSO PRESENT: Ellen Hebert, Videographer	16	videographer with U.S. Legal Support located
15	THOU TOOMY AIGODIANO	17	at 1230 Columbia Street, Suite 400, San Diego
16	INDEX	18	California 92101.
17	WITNESS Page	19	Video and audio recording will be taking
18	WILLIAM E. HALAL, Ph.D	20	place unless all counsel have agreed to go
19	By Mr. Williamson 5 By Mr. Grochocinski 102	21	off the record.
20 21	By Mr. Grochocinski 102	22	Would all present please identify
22		23	themselves beginning with the witness.
23		24	THE WITNESS: William Halal.
24		25	MR. GROCHOCINSKI: Tim Grochocinski on
25	Page 3	1	Page 5
1	raye -	•	3

2 (Pages 2 to 5)

U.S. LEGAL SUPPORT (714) 486-0737

# William Halal, Ph.D.

Γ			
1	WILLIAM HALAL	1	WILLIAM HALAL
2	signature on the second page?	2	Q We talked about the utility patent
3	A Oh, yes. That is definitely my	3	application. If I could ask you to turn to 3549
4	signature. No question about it.	4	towards the end of the document.
5	MR, WILLIAMSON: Let's go off the record	5	A Okay.
6	for a second, because I am now searching for a	6	Q At the bottom of that there is a box, a
7	document.	7	name of second inventor. And it has your name.
8	THE VIDEOGRAPHER: Going off the record.	8	A Right.
9	The time is 11:20 a.m.	9	Q It also has the address of 3342 Maud
10	(Thereupon, a brief recess was taken.)	1.0	Street.
11	THE VIDEOGRAPHER: Going back on the	11	A Yes.
12	record. The time is 11:21 a.m.	12	Q Did you authorize Ann Wang to sign your
13	BY MR. WILLIAMSON:	13	name on that document?
1.4	Q Okay. I apologize if I asked you this	14	A Yes. We did that often, just for
15	question already, but I am going to show you	15	convenience. Rather than make a trip to her
16	Exhibit 21, which is a declaration of William	16	home in Virginia, I asked if she could sign for
17	Halal in support of Virginia Innovation	17	me.
18	Science's Response in Opposition to Samsung's	18	Q So you remember in particular in this
19	Motion to Transfer Venue to the District of New	19	instance telling her she was authorized to sign
20	Jersey.	20	your name to the document?
21	This is what I may have already asked	21	A Well, we did that often. I don't
22	you, whether you still reside at 3342 Maud	22	remember this particular document, but that
23	Street, Northwest in Washington, D.C.?	23	happened a lot.
24	A Yes.	24	Q But you will agree with me that that is
25	Q Do you have any plans to move from that	25	not your signature?
2.5	Page 90		Page 92
			MANA TANA TANA TANA TANA TANA TANA TANA
1	WILLIAM HALAL	1	WILLIAM HALAL
2	address between now and the end of the calendar	2	A That is not my signature, no.
3	year?	3	Q Do you remember anything more in
4	A No.	4	particular relating to the signature on
5	Q Are you anticipating taking any long	5	Exhibit 18 in terms of giving authorization to
6	trips between now and the end of the calendar	6	Ms. Wang?
7	year?	7	A Do I remember anything in particular?
8	A Nothing more than a week.	8	Q I think you testified that it was
9	Q Turning to the last page of Exhibit 21.	9	customary practice in connection with these
10	Is that your signature?	10	patents for you to authorize her to sign your
11	A Yes.	11	name. But do you remember specifically doing so
1.2	Q Do you recall signing this document at	12	with respect to the document that is marked as
13	some point after the filing of this lawsuit?	13	Exhibit 18?
14	A Vaguely.	14	A I couldn't follow all of the
15	Q Did you understand that you were being	15	machinations of this thing. I just did what she
16	asked to provide information relating to the	16	told me to do, really. As I said, I left it to
17	convenience to you of the case staying in the	17	her and Ron.
18	District of Virginia?	18	Q With respect to what you just testified
19	A Yes. I remember that. Yes.	19	to, with respect to Ann and Ron, do you
20	Q And I take it you believed it was more	20	understand that they were the people primarily
21	convenient for the case to stay in Virginia?	21	responsible for applying for patents?
22	A Yes, yes, yes.	22	A Yes.
23	Q Do you still have Exhibit 18 in front of	23	Q Were you involved in any way in the
i	you?	24	process by which the patents were sought from
24			
24 25	A Yes. Page 91	25	the U.S. Patent and Trademark Office?  Page 93

24 (Pages 90 to 93)

U.S. LEGAL SUPPORT (714) 486-0737

## William Halal, Ph.D.

r*************************************		***************************************	
1	WILLIAM HALAL	1	WILLIAM HALAL
2	my questions, subject to anything you raise.	2	CERTIFICATE
3	CROSS-EXAMINATION	3	DISTRICT OF COLUMBIA
4	BY MR. GROCHOCINSKI:	4	
5	Q Professor Halal, did you contribute to	5	I, the undersigned authority, hereby
6	the patents-in-suit?	6	certify that the foregoing transcript, page 1
7	A Yes.	7	through 103 is a true and correct transcription of
8	Q Do you believe that you were properly	8	the deposition of William E. Halal, Ph.D, taken
9	named as a coinventor on the patents-in-suit?	9	before me at the time and place set forth on the
10	MR. WILLIAMSON: Object. Leading.	10	title page hereof.
11	MR, GROCHOCINSKI: You can answer.	11	I further certify that said
12	THE WITNESS: Should I answer this or not?	12	witness was duly sworn by me according to law.
13	BY MR. GROCHOCINSKI:	1.3	I further certify that I am not of
14		14	counsel to any of the parties to said cause or
	Q You can answer the question.	1.5	otherwise interested in the event thereof.
15	A Yes, I did.	16	IN WITNESS WHEREOF I hereunto set my
16	Q Do you have any reason to believe you	1.7	hand and affix official seal this 3rd day of
17	should not have been named as a coinventor?	18	August, 2013.
18	A No.	1	August, 2015.
19	Q If I can just ask you to take out	19	
20	Exhibit 18 very briefly. That is the Utility	20	
21	Patent Application.	21	TO A STORY OF THE HAND STORY OF THE STORY OF THE STORY OF THE
22	A I got it.	22	RANDI GARCIA, COURT REPORTER, RP
23	Q If you can turn to page 3549. It's the	23	NOTARY PUBLIC
24	page with well, your name and signature on	24	
25	it.	25	un al ex
	Page 102		Page 10
1	WILLIAM HALAL	1	WILLIAM HALAL
2	A Yes.	2	I CERTIFY THIS IS A TRUE AND
3	Q Did you authorize Dr. Ann Wang to sign	3	ACCURATE TRANSCRIPT FURTHER DEPONENT SAYETH N
4	your name on Exhibit 18?	4	
5	A Yes.	5	
6	4 Y*:	- 6	THE WITNESS
	Q Do you have any reason to believe that you didn't authorize her to sign your name?	7	
7	A No.	8	
8	MR. GROCHOCINSKI: That is all I have.	9	
9		10	DISTRICT OF COLUMBIA
10	MR. WILLIAMSON: Nothing further from me.	11	Sworn and subscribed to before me this
11	THE WITNESS: We are done?		day of2013
12	MR. WILLIAMSON: We are.	12	day orzor.J
13	THE WITNESS: That was painless. It was	1.3	
14	kind of fun.	14	% 21 1
15	THE VIDEOGRAPHER: This concludes today's	15	Personally knownor
16	videotaped deposition of Dr. William Halal.	16	ID
17	Going off the record. The time is 11:47 a.m.	1.7	and any control of the state of
18		18	
19	(Whereupon, at 11:47 a.m., the deposition	1.9	
20	was concluded.)	20	Notary Public in and for
AL 1/1		21	the District of Columbia at
21		22	Large My Commission Expires.
	•	1	
21		23	July 12, 2016
21 22	•	23 24	July 12, 2016
21 22 23			July 12, 2016 Page 10

27 (Pages 102 to 105)

U.S. LEGAL SUPPORT (714) 486-0737

PTO/SB/81 (04-05)

Approved for use through 11/30/2005, OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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#### POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Under the Paperwork Reduction Act of 1997 Propagation

Application Number	11/165,341
Filling Date	June 24, 2005
First Named Inventor	Tiejun Wang
Title	Methods, Systems & Apparatus for
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	59457-00601

I hereby revoke all previous powers of attorney given in the above-identified application.					
I hereby appoint:	gpartner bide system of an activation and activation and activation and activation and activation and activation and activation activation and activation				
Practitioners associated with the Customer Number:	25243				
OR L	y garaggayar (chin-dhinanna in an ann ann ann ann ann ann ann				
Practitioner(s) named below:					
Name	Registration Number				
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Trademark Office connected therewith.	fied above, and to transact all business in the United States Patent and				
Please recognize or change the correspondence address for the ab	ove identified application to				
177					
The address associated with the above-mentioned Custor OR	ter Number:				
	<u> </u>				
The address associated with Customer Number:					
OR L					
Individual Name					
Address					
City	State Zip				
Country	. Constitution of the cons				
Telephone	Email				
I am the:  Applicant/Inventor.					
Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)					
SQNATURE of Applicant or Assignee of Record					
Signature (V)	Date 9 405				
Name William E. Halal	Telephone				
Title and Company					
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.					
Total of 4 forms are submitted.					

Total of Tot

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

Plaintiff.

٧.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

JURY TRIAL DEMANDED

# SAMSUNG'S INITIAL ANSWER, AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS TO THE FIRST AMENDED COMPLAINT

COME NOW Samsung Electronics Company, Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively, "Samsung") for their Answer, Affirmative Defenses, and Counterclaims to the First Amended Complaint, filed on July 24, 2013 ("Complaint"), by Plaintiff Virginia Innovation Sciences, Inc. ("VIS"), admit, deny, and allege as follows:

#### **PARTIES**

- 1. In answer to Paragraph 1, Samsung is without information sufficient to form a belief as to the truth of the allegations thereof, and on that basis denies them.
- 2. In answer to Paragraph 2, Samsung admits that Samsung Electronics Co., Ltd. is a corporation organized and existing under the laws of Republic of Korea, but denies that its principal place of business is located at Samsung Main Building, 250, Taepyeongno 2-ga, Junggu, Seoul 100-742, Republic of Korea. Samsung Electronics Co., Ltd.'s principal place of business is located at 1320-10, Seocho 2-dong, Seocho-gu, Seoul 137-857, Republic of Korea. Samsung admits that it answered the original complaint filed on October 4, 2012.

- 3. In answer to Paragraph 3, Samsung admits that Samsung Electronics America, Inc. is a corporation organized and existing under the laws of the State of New York, but denies that its principal place of business is located at 1200 New Hampshire Ave., Suite 500, Washington, DC 20036. Samsung Electronics America's principal place of business is located at 85 Challenger Road, Ridgefield Park, NJ 07660. Samsung denies that this entity may be served with process through its registered agent in the Commonwealth of Virginia, CT Corporation Service Company, 4701 Cox Rd., Suite 301, Glen Allen, Virginia 23060-6802. Samsung Electronics America, Inc.'s registered agent for service of process is C T Corporations System, 111 Eighth Avenue, New York, New York 10011. Samsung admits that Samsung Electronics America, Inc. is a wholly-owned subsidiary of Samsung Electronics Company, Ltd. Samsung admits that it answered the original complaint filed on October 4, 2012.
- 4. In answer to Paragraph 4, Samsung admits that Samsung Telecommunications
  America, LLC, is a company organized and existing under the laws of Delaware, with its
  principal place of business at 1301 East Lookout Dr., Richardson, Texas 75082. Samsung denies
  that this entity may be served with process through its registered agent in the Commonwealth of
  Virginia, Corporation Service Company, 11 S. 12th St., P.O. Box 1463, Richmond, Virginia
  23218. Samsung Telecommunications America LLC's registered agent for service of process is
  Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, DE 19808.
  Samsung admits that Samsung Telecommunications America, LLC, is a wholly-owned
  subsidiary of Samsung Electronics America, Inc. Samsung admits that it answered the original
  complaint filed on October 4, 2012.

#### JURISDICTION AND VENUE

- 5. In answer to Paragraph 5, Samsung admits the Complaint purports to allege infringement under the United States patent laws. Samsung further admits that subject matter jurisdiction in this Court purports to be based upon the statutes cited.
- 6. In answer to Paragraph 6, Samsung admits that it has conducted certain business in this District. Samsung admits that this Court denied a motion to transfer in this case.

  Samsung denies all other allegations in Paragraph 6, and specifically denies that it has committed acts of infringement, induced acts of infringement, or that VIS is entitled to relief from Samsung.
- 7. In answer to Paragraph 7, Samsung admits that it has conducted certain business in this District and is subject to this Court's personal jurisdiction. Samsung denies all other allegations in Paragraph 7.

## [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 7,899,492

- 8. In answer to Paragraph 8, Samsung incorporates Paragraphs 1 through 7 herein by reference.
- 9. In answer to Paragraph 9, Samsung admits that this action purports to arise under the patent laws of the United States.
- 10. In answer to Paragraph 10, Samsung admits that what appears to be a copy of U.S. Patent No. 7,899,492 ("the '492 Patent") was attached to the Original Complaint as Exhibit A (Doc. 1-1), and that on its face, the '492 Patent is entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information From Wireless Communication Networks." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '492 Patent. Samsung is without

information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.

11. In answer to Paragraph 11, Samsung admits that the '492 Patent appears to have issued. Samsung denies all other allegations of Paragraph 11.

## [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 12. In answer to Paragraph 12, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '492 Patent.
- 13. In answer to Paragraph 13, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G, are capable of supporting video output using MHL. Samsung denies every other allegation set forth therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL and/or HDMI, denies that Samsung infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 14. In answer to Paragraph 14, Samsung admits that certain Samsung smartphones with model names Droid Charge Smartphone, Epic, Galaxy S 4G, Galaxy Note, Galaxy S II, Galaxy S III, Galaxy S II Epic 4G Touch, Galaxy S II Skyrocket, Infuse 4G, and Stratosphere are capable of supporting video output using either DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 15. In answer to Paragraph 15, Samsung admits that certain Samsung tablets, including some tablets with model names Galaxy Tab 8.9 (cellular) and Galaxy Tab 10.1

(cellular), are capable of receiving a video signal via a cellular network communication and support video output using MHL, but denies every other allegation therein, and specifically denies that Samsung infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

- 16. In answer to Paragraph 16, Samsung admits that certain Samsung tablets are capable of receiving a video signal via a cellular network communication and support video output using either DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 17. In answer to Paragraph 17, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 18. In answer to Paragraph 18, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '492 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

# [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

- 19. In answer to Paragraph 19, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.
- 20. In answer to Paragraph 20, Samsung admits that it became aware of the '492 Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation

set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.

- 21. In answer to Paragraph 21, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 22. In answer to Paragraph 22, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 23. In answer to Paragraph 23, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 24. In answer to Paragraph 24, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 25. In answer to Paragraph 25, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

# [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 8,050,711

- 26. In answer to Paragraph 26, Samsung incorporates Paragraphs 1 through 25 herein by reference.
- 27. In answer to Paragraph 27, Samsung admits that this action purports to arise under the patent laws of the United States.
- 28. In answer to Paragraph 28, Samsung admits that what appears to be a copy of U.S. Patent No. 8,050,711 ("the '711 Patent") was attached to the Original Complaint as Exhibit B (Doc. 1-2), and that on its face, the '711 Patent is entitled "Methods, Systems and Apparatus

for Displaying the Multimedia Information From Wireless Communication Networks." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '711 Patent. Samsung is without information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.

29. In answer to Paragraph 29, Samsung admits that the '711 Patent appears to have issued. Samsung denies every other allegation set forth in Paragraph 29.

# [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 30. In answer to Paragraph 30, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '711 Patent.
- 31. In answer to Paragraph 31, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G, are capable of supporting video output using MHL. Samsung denies every other allegation set forth therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL, denies that Samsung infringes or has infringed any valid claim of the '711 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 32. In answer to Paragraph 32, Samsung admits that certain Samsung smartphones are capable of supporting video output using either DLNA and/or Samsung's AllShare software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '711 Patent, and denies that VIS is entitled to any recovery under § 271.
- 33. In answer to Paragraph 33, Samsung admits that certain Samsung tablets, including some tablets with model names Galaxy Tab 8.9 (cellular) and Galaxy Tab 10.1

(cellular), are capable of receiving a video signal via a cellular network communication and support video output using MHL, but denies every other allegation therein, and specifically denies that Samsung infringes or has infringed any valid claim of the '711 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

- 34. In answer to Paragraph 34, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '711 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 35. In answer to Paragraph 35, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '711 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

## [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

- 36. In answer to Paragraph 36, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.
- 37. In answer to Paragraph 37, Samsung admits that it became aware of the '711 Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 38. In answer to Paragraph 38, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.

- 39. In answer to Paragraph 39, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 40. In answer to Paragraph 40, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 41. In answer to Paragraph 41, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 42. In answer to Paragraph 42, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

## [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 8,145,268

- 43. In answer to Paragraph 43, Samsung incorporates Paragraphs 1 through 42 herein by reference.
- 44. In answer to Paragraph 44, Samsung admits that this action purports to arise under the patent laws of the United States.
- 45. In answer to Paragraph 45, Samsung admits that what appears to be a copy of U.S. Patent No. 8,145,268 ("the '268 Patent") was attached to the Original Complaint as Exhibit C (Doc. 1-3), and that on its face, the '268 Patent is entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information From Wireless Communication Networks." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '268 Patent. Samsung is without

information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.

46. In answer to Paragraph 46, Samsung admits that the '268 Patent appears to have issued. Samsung denies every other allegation in Paragraph 46.

## [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 47. In answer to Paragraph 47, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent.
- 48. In answer to Paragraph 48, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G, are capable of supporting video output using MHL, but denies every other allegation set forth therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL, denies that Samsung infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 49. In answer to Paragraph 49, Samsung admits that certain Samsung smartphones are capable of supporting video output using either DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 50. In answer to Paragraph 50, Samsung admits that certain Samsung tablets, including some with model names Galaxy Tab 8.9 (cellular), Galaxy Tab 10.1 (cellular), Galaxy Tab 10.1 (WiFi only), and Galaxy Tab 2 10.1 (WiFi only) are capable of supporting video output using MHL, but denies every other allegation therein, and specifically denies that it infringes or

has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

- 51. In answer to Paragraph 51, Samsung admits that certain Samsung tablets are capable of supporting video output using either DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 52. In answer to Paragraph 52, Samsung admits that certain Samsung tablets are capable of receiving a video signal via a cellular network communication and support video output using MHL, HDMI, DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 53. In answer to Paragraph 53, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 54. In answer to Paragraph 54, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '268 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

## [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

55. In answer to Paragraph 55, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.

- 56. In answer to Paragraph 56, Samsung admits that it became aware of the '268 Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 57. In answer to Paragraph 57, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 58. In answer to Paragraph 58, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 59. In answer to Paragraph 59, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 60. In answer to Paragraph 60, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 61. In answer to Paragraph 61, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

# [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 8,224,381

- 62. In answer to Paragraph 62, Samsung incorporates Paragraphs 1 through 61 herein by reference.
- 63. In answer to Paragraph 63, Samsung admits that this action purports to arise under the patent laws of the United States.

- 64. In answer to Paragraph 64, Samsung admits that what appears to be a copy of U.S. Patent No. 8,224,381 ("the '381 Patent") was attached to the Complaint as Exhibit D (Doc. 1-4), and that on its face, the '381 Patent is entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information From Wireless Communication Networks." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '381 Patent. Samsung is without information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.
- 65. In answer to Paragraph 65, Samsung admits that the '381 Patent appears to have issued. Samsung denies every other allegation in Paragraph 65.

# [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 66. In answer to Paragraph 66, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '381 Patent.
- 67. In answer to Paragraph 67, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G are capable of supporting video output using MHL, but denies every other allegation set forth therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL, denies that Samsung infringes or has infringed any valid claim of the '381 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 68. In answer to Paragraph 68, Samsung admits that certain Samsung tablets are capable of supporting video output using MHL and/or HDMI, but denies every other allegation

therein, and specifically denies that it infringes or has infringed any valid claim of the '381 Patent and denies that VIS is entitled to any recovery under § 271.

- 69. In answer to Paragraph 69, Samsung admits that certain Samsung tablets, including some with model names Galaxy Tab 8.9 (cellular) and Galaxy Tab 10.1 (cellular), are capable of receiving a video signal via a cellular network communication and support video output using MHL, but denies every other allegation therein, and specifically denies that Samsung infringes or has infringed any valid claim of the '381 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 70. In answer to Paragraph 70, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '381 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 71. In answer to Paragraph 71, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '381 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

#### [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

- 72. In answer to Paragraph 72, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.
- 73. In answer to Paragraph 73, Samsung admits that it became aware of the '381 Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.

- 74. In answer to Paragraph 74, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 75. In answer to Paragraph 75, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 76. In answer to Paragraph 76, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 77. In answer to Paragraph 77, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

#### [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 7,957,733

- 78. In answer to Paragraph 78, Samsung incorporates Paragraphs 1 through 77 herein by reference.
- 79. In answer to Paragraph 79, Samsung admits that this action purports to arise under the patent laws of the United States.
- 80. In answer to Paragraph 80, Samsung admits that what appears to be a copy of U.S. Patent No. 7,957,733 ("the '733 Patent") was attached to the Complaint as Exhibit E (Doc. 1-5), and that on its face, the '733 Patent is entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '733 Patent. Samsung is without information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.

81. In answer to Paragraph 81, Samsung admits that the '733 Patent appears to have issued. Samsung denies every other allegation in Paragraph 81.

## [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 82. In answer to Paragraph 82, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claims of the '733 Patent.
- 83. In answer to Paragraph 83, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G are capable of supporting multimedia content output using MHL, but denies every other allegation therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL, denies that Samsung infringes or has infringed any valid claim of the '733 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 84. In answer to Paragraph 84, Samsung admits that certain Samsung smartphones are capable of supporting multimedia content output using DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '733 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 85. In answer to Paragraph 85, Samsung admits that certain Samsung tablets, including some tablets with model names Galaxy Tab 8.9 (cellular), Galaxy Tab 10.1 (cellular), Galaxy Tab 10.1 (WiFi only), and Galaxy Tab 2 10.1 (WiFi only) are capable of supporting multimedia content output using MHL, but denies every other allegation therein, and specifically denies that Samsung infringes or has infringed any valid claim of the '733 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

- 86. In answer to Paragraph 86, Samsung admits that certain Samsung tablets are capable of supporting multimedia content output using DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '733 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 87. In answer to Paragraph 87, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '733 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 88. In answer to Paragraph 88, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '733 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

# [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

- 89. In answer to Paragraph 89, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.
- 90. In answer to Paragraph 90, Samsung admits that it became aware of the '733

  Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 91. In answer to Paragraph 91, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.

- 92. In answer to Paragraph 92, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 93. In answer to Paragraph 93, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 94. In answer to Paragraph 94, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 95. In answer to Paragraph 95, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

## [ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 8,135,398

- 96. In answer to Paragraph 96, Samsung incorporates Paragraphs 1 through 95 herein by reference.
- 97. In answer to Paragraph 97, Samsung admits that this action purports to arise under the patent laws of the United States.
- 98. In answer to Paragraph 98, Samsung admits that what appears to be a copy of U.S. Patent No. 8,135,398 ("the '398 Patent") was attached to the Complaint as Exhibit F (Doc. 1-6), and that on its face, the '398 Patent is entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals." Samsung denies that VIS has the right to exclude others and to enforce, sue, and recover damages for past and future infringement based on the '398 Patent. Samsung is without information sufficient to form a belief as to the truth of any remaining allegations of said paragraph, and on that basis denies them.

99. In answer to Paragraph 99, Samsung admits that the '398 Patent appears to have issued. Samsung denies every other allegation in Paragraph 99.

## [ALLEGED] DIRECT INFRINGEMENT (35 U.S.C. § 271(a))

- 100. In answer to Paragraph 100, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claims of the '398 Patent.
- 101. In answer to Paragraph 101, Samsung admits that certain Samsung smartphones, including some smartphones with model names Nexus i515, Galaxy Note, Galaxy S II, Galaxy S III, and Infuse 4G, are capable of supporting video output using MHL and/or HDMI, but denies every other allegation set forth therein, and specifically denies that smartphones with the model names Droid Charge and Galaxy S II Epic 4G Touch support video output using MHL, denies that it infringes or has infringed any valid claim of the '398 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 102. In answer to Paragraph 102, Samsung admits that certain Samsung smartphones are capable of supporting multimedia content output using either DLNA and/or Samsung's AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '398 Patent, and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 103. In answer to Paragraph 103, Samsung admits that certain Samsung tablets, including some tablets with model names Galaxy Tab 8.9 (cellular), Galaxy Tab 10.1 (Cellular), Galaxy Tab 10.1 (WiFi only), and Galaxy Tab 2 10.1 (WiFi only) are capable of supporting video output using MHL, but denies every other allegation therein, and specifically denies that Samsung infringes or has infringed any valid claim of the '398 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

- 104. In answer to Paragraph 104, Samsung admits that certain Samsung tablets are capable of supporting multimedia content output using either DLNA and/or Samsung AllShare Software, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '398 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 105. In answer to Paragraph 105, Samsung admits that certain Samsung adapters, docking stations and the AllShare Cast Wireless Hub are compatible with certain mobile phones and/or tablets, but denies every other allegation therein, and specifically denies that it infringes or has infringed any valid claim of the '398 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.
- 106. In answer to Paragraph 106, Samsung denies every allegation set forth therein, and specifically denies that it infringes or has infringed any valid claim of the '398 Patent and denies that VIS is entitled to any recovery under 35 U.S.C. § 271.

# [ALLEGED] INDIRECT INFRINGEMENT (INDUCEMENT 35 U.S.C. § 271(b))

- 107. In answer to Paragraph 107, Samsung denies every allegation set forth therein, and specifically denies that Samsung has induced direct infringement by users.
- 108. In answer to Paragraph 108, Samsung admits that it became aware of the '398 Patent upon receipt of service of the Original Complaint. Samsung denies every other allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.
- 109. In answer to Paragraph 109, Samsung denies every allegation set forth therein, and specifically denies that it has or had any knowledge of any infringing activities.

- 110. In answer to Paragraph 110, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 111. In answer to Paragraph 111, Samsung denies every allegation set forth therein, and specifically denies that Samsung provides any instructions to use its products in an infringing manner.
- 112. In answer to Paragraph 112, Samsung is without information sufficient to form a belief as to the truth of any allegations of said paragraph, and on that basis denies them.
- 113. In answer to Paragraph 113, Samsung denies every allegation set forth therein, and specifically denies that VIS is entitled to any damages, including a reasonable royalty, interest, or costs.

#### WILLFUL INFRINGEMENT

114-142. In answer to Paragraphs 114 through 142, Samsung refers the Court to its pending Motion To Dismiss Claim For Willful Infringement In First Amended Complaint, And To Strike Allegations And Prayer For Relief Regarding Same, as well as its Memorandum in Support thereof. [D.I. 124 and 125]. To the extent any further response is necessary with respect to Paragraphs 114 through 142, Samsung denies the allegations therein.

#### **JURY DEMAND**

143. To the extent a response is required, Samsung admits that VIS's Complaint contains a request for a jury trial.

#### PRAYER FOR RELIEF

144. To the extent a response is required, Samsung denies that VIS is entitled to any of its requested relief. Samsung specifically denies that it has infringed or is infringing the '492,

'711, '268, '381, '733 and/or '398 Patent, literally or under the doctrine of equivalents, that it has willfully infringed or is willfully infringing the '492, '711, '268, '381, '733 and/or '398 Patent, literally or under the doctrine of equivalents, specifically denies that VIS is entitled to any award of damages and/or costs, specifically denies that VIS is entitled to any on-going post-judgment royalty, specifically denies that VIS is entitled to interest on damage, specifically denies that VIS is entitled to enhanced damages under 35 U.S.C. § 285, and specifically denies that VIS is entitled to any other relief.

#### GENERAL DENIAL

145. To the extent that any allegations of the Complaint are not specifically admitted, Samsung hereby denies them.

#### AFFIRMATIVE DEFENSES

146. Without admitting or acknowledging that it bears the burden of proof as to any of them, Samsung pleads the following affirmative defenses.

#### FIRST AFFIRMATIVE DEFENSE

147. Samsung has not engaged in any acts that would constitute infringement of, contributory infringement of, or inducement to infringe, any valid claim of the '492, '711, '268, '381, '733 and/or '398 Patent, either literally or under the doctrine of equivalents.

#### SECOND AFFIRMATIVE DEFENSE

148. The claims of the '492, '711, '268, '381, '733 and/or '398 Patents are invalid and/or unenforceable for failure to comply with one or more of the requirements of Title 35, United States Code, including without limitation §§ 101, 102, 103, 111, 112, 116, 132, and/or 251.

#### THIRD AFFIRMATIVE DEFENSE

149. VIS's claims for relief are barred, in whole or in part, by the doctrine of prosecution history estoppel.

#### FOURTH AFFIRMATIVE DEFENSE

150. VIS's enforcement of the '492, '711, '268, '381, '733 and/or '398 Patents is barred, in whole or in part, by the equitable doctrines of laches, estoppel, waiver, unclean hands and acquiescence.

#### FIFTH AFFIRMATIVE DEFENSE

151. VIS is not entitled to an injunction because VIS is not likely to prevail on the merits, has not suffered and will not suffer irreparable harm because of Samsung's conduct, and has an adequate remedy at law.

#### SIXTH AFFIRMATIVE DEFENSE

152. VIS's claim for damages, if any, against Samsung for alleged infringement of the '492, '711, '268, '381, '733 and/or '398 Patents is limited by 35 U.S.C. §§ 286, 287, and/or 288.

#### SEVENTH AFFIRMATIVE DEFENSE

153. VIS's enforcement of the '492, '711, '268, '381, '733, and/or '398 Patents is barred, in whole or in part, as a result of VIS's inequitable conduct committed during prosecution of one or more of the Patents-in-Suit at the U.S. Patent and Trademark Office (USPTO), as set forth herein in VIS's Thirteenth Counterclaim.

## RESERVATION OF ADDITIONAL DEFENSES

154. Samsung reserves the right to assert additional defenses that may be developed through discovery in this action.

#### SAMSUNG'S COUNTERCLAIMS

Counterclaimant Samsung hereby counterclaims and alleges against Counterclaim

Defendant VIS as follows:

#### THE PARTIES

- 1. Counterclaimant Samsung Electronics Company, Ltd. is a corporation organized under the laws of the Republic of Korea, with its principal place of business located at 1320-10, Seocho 2-dong, Seocho-gu, Seoul 137-857, Republic of Korea.
- 2. Counterclaimant Samsung Electronics America, Inc. is a corporation organized and existing under the laws of the State of New York, with its principal place of business located at 105 Challenger Road, Ridgefield Park, NJ 07660. Samsung Electronics America, Inc. is a wholly-owned subsidiary of Samsung Electronics Company, Ltd.
- 3. Counterclaimant Samsung Telecommunications America, LLC is a company organized and existing under the laws of Delaware, with its principal place of business at 1301 East Lookout Dr., Richardson, Texas 75082. Samsung Telecommunications America, Inc. is a wholly-owned subsidiary of Samsung Electronics America, Inc.
- 4. Counterclaimants Samsung Electronics Company, Ltd., Samsung Electronics

  America, Inc., and Samsung Telecommunications America, LLC are herein collectively referred to as "Samsung."
- 5. Upon information and belief, Counterclaim Defendant Virginia Innovation Sciences, Inc. ("VIS") is a Virginia corporation with its principal place of business at 6301 Edsall Road #517, Arlington, Virginia 22312.

## JURISDICTION AND VENUE

- 6. This Court has subject matter jurisdiction over Samsung's counterclaims under the Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202, and the patent laws of the United States, Title 35, United States Code, for which jurisdiction is based on 28 U.S.C. §§ 1331 and 1338(a).
- 7. An actual, substantial, and continuing justiciable controversy exists between Samsung and VIS based on VIS having filed a Complaint against Samsung alleging infringement of the '492, '711, '268, '381, '733 and '398 Patents, with respect to which Samsung requires a declaration of its rights by this Court. Specifically, the controversy concerns the invalidity and non-infringement of the '492, '711, '268, '381, '733 and '398 Patents and the right of VIS to maintain suit for alleged infringement of the '492, '711, '268, '381, '733 and '398 Patents.
- 8. By filing its Complaint, VIS has consented to the personal jurisdiction of this Court.
- 9. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391 and 1400. Samsung maintains that venue is more convenient in another district.

#### FIRST COUNTERCLAIM

- 10. Samsung incorporates the foregoing admissions, denials, and allegations.
- 11. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '492 Patent, as VIS contends, or does not do so, as Samsung contends.
- 12. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.

- 13. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '492 Patent either literally or under the doctrine of equivalents.
- 14. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '492 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '492 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 15. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### SECOND COUNTERCLAIM

- 16. Samsung incorporates the foregoing admissions, denials, and allegations.
- 17. An actual controversy exists between Samsung and VIS as to whether the '492 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.
- 18. By this Counterclaim, Samsung seeks a declaration that the claims of the '492 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '492 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 19. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### THIRD COUNTERCLAIM

- 20. Samsung incorporates the foregoing admissions, denials, and allegations.
- 21. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '711 Patent, as VIS contends, or does not do so, as Samsung contends.
- 22. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.
- 23. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '711 Patent either literally or under the doctrine of equivalents.
- 24. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '711 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '711 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 25. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### FOURTH COUNTERCLAIM

- 26. Samsung incorporates the foregoing admissions, denials, and allegations.
- 27. An actual controversy exists between Samsung and VIS as to whether the '711 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.

- 28. By this Counterclaim, Samsung seeks a declaration that the claims of the '711 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '711 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 29. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### FIFTH COUNTERCLAIM

- 30. Samsung incorporates the foregoing admissions, denials, and allegations.
- 31. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '268 Patent, as VIS contends, or does not do so, as Samsung contends.
- 32. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.
- 33. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '268 Patent either literally or under the doctrine of equivalents.
- 34. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '268 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '268 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.

35. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### SIXTH COUNTERCLAIM

- 36. Samsung incorporates the foregoing admissions, denials, and allegations.
- 37. An actual controversy exists between Samsung and VIS as to whether the '268 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.
- 38. By this Counterclaim, Samsung seeks a declaration that the claims of the '268 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '268 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 39. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### SEVENTH COUNTERCLAIM

- 40. Samsung incorporates the foregoing admissions, denials, and allegations.
- 41. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '381 Patent, as VIS contends, or does not do so, as Samsung contends.
- 42. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.

- 43. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '381 Patent either literally or under the doctrine of equivalents.
- 44. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '381 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '381 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 45. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### **EIGHTH COUNTERCLAIM**

- 46. Samsung incorporates the foregoing admissions, denials, and allegations.
- 47. An actual controversy exists between Samsung and VIS as to whether the '381 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.
- 48. By this Counterclaim, Samsung seeks a declaration that the claims of the '381 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '381 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 49. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### NINTH COUNTERCLAIM

- 50. Samsung incorporates the foregoing admissions, denials, and allegations.
- 51. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '733 Patent, as VIS contends, or does not do so, as Samsung contends. Despite VIS's statement on July 29, 2013 that it was "not going to assert the '733 patent in this lawsuit suit [sic] going forward," VIS has not amended its Complaint to remove the allegations under the '733 Patent.
- 52. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.
- 53. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '733 Patent either literally or under the doctrine of equivalents.
- 54. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '733 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '733 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 55. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### TENTH COUNTERCLAIM

56. Samsung incorporates the foregoing admissions, denials, and allegations.

- 57. An actual controversy exists between Samsung and VIS as to whether the '733 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.
- 58. By this Counterclaim, Samsung seeks a declaration that the claims of the '733 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '733 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 59. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### **ELEVENTH COUNTERCLAIM**

- 60. Samsung incorporates the foregoing admissions, denials, and allegations.
- 61. An actual controversy exists between Samsung and VIS as to whether Samsung infringes directly or indirectly any valid and enforceable claim of the '398 Patent, as VIS contends, or does not do so, as Samsung contends.
- 62. Samsung has been damaged by VIS's filing of a lawsuit against Samsung based on a patent that Samsung does not infringe.
- 63. By this Counterclaim, Samsung seeks a declaration that it has not infringed directly or indirectly and does not infringe directly or indirectly any valid and enforceable claim of the '398 Patent either literally or under the doctrine of equivalents.
- 64. Further, Samsung seeks a declaration that it has not induced and does not induce infringement of the '398 Patent by anyone. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '398 Patent

and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.

65. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. §285.

#### TWELFTH COUNTERCLAIM

- 66. Samsung incorporates the foregoing admissions, denials, and allegations.
- 67. An actual controversy exists between Samsung and VIS as to whether the '398 Patent is valid, as VIS contends, or is invalid for failure to comply with the requirements of patentability set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, as Samsung contends.
- 68. By this Counterclaim, Samsung seeks a declaration that the claims of the '398 Patent are invalid. A judicial declaration is necessary and appropriate at this time in order that Samsung may ascertain its right and duties with respect to the '398 Patent and to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of its products.
- 69. This is an exceptional case entitling Samsung to an award of its attorney's fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### THIRTEENTH COUNTERCLAIM

- 70. Samsung incorporates the foregoing admissions, denials, and allegations.
- 71. VIS's enforcement of the '492, '711, '268, '381, '733, and/or '398 Patents is barred, in whole or in part, as a result of VIS's inequitable conduct committed during prosecution of one or more of the Patents-in-Suit at the U.S. Patent and Trademark Office (USPTO).

- 72. U.S. patent application no. 11/165,341 ("the '341 application") issued as the '492 Patent, and the '711, '268, '381, '733, and '398 Patents each purport to claim the benefit of an earlier filing date based on a claim for priority to the '341 application.
- 73. On June 24, 2005, Dr. Tiehong Wang, VIS's Chief Executive Officer and named alleged co-inventor on all of the patents-in-suit, submitted a Declaration to the USPTO in connection with the '341 application ("the '341 Application Declaration"). The '341 Application Declaration submitted by Dr. Tiehong Wang indicates that Dr. Tiehong Wang, Dr. Tiejun Wang, and Dr. William Halal all executed the '341 Application Declaration on June 24, 2005, the same day that USPTO records indicate the '341 Application Declaration was submitted to the USPTO.
- 74. The '341 Application Declaration bears a signature for Dr. William Halal that is materially different from other instances of Dr. Halal's signature in the prosecution history of the '492, '711, '268, '381, '733, and/or '398 Patents, including in a subsequent Declaration submitted by VIS's prosecution attorney Christopher Tobin on August 22, 2007, in connection with the prosecution of U.S. patent application no. 11/802,418 ("the '418 application").
- 75. Despite this material difference in Dr. Halal's signature on the '341 Application Declaration, Dr. Tiehong Wang testified that Dr. Halal personally signed the '341 Application Declaration.
- 76. When shown the '341 Application Declaration, Dr. Halal testified that he did not personally sign the '341 Application Declaration, and that the signature in question on the '341 Application Declaration was not his signature.
- 77. The submission of the forged '341 Application Declaration was inherently material to patentability because a false declaration is per se material, and a valid oath or

declaration from each inventor is a requirement of patentablity according to 35 U.S.C. § 116. But-for the forgery of Dr. Halal's signature on the '341 Application Declaration, the '341 application would not have satisfied the requirements for a complete patent application, which require that each inventor submit a declaration unless otherwise satisfying the requirements of unavailability: "neither of [the inventors] alone, nor less than the entire number, can apply for a patent for an invention invented by them jointly." 37 C.F.R. § 1.45. Thus, the '341 application would not have satisfied patentability requirements and would not have issued as a patent without each named inventor's signature. Without the forgery, the applicants would have needed to file a petition seeking to correct the inventorship of the '341 Application, would have been required to demonstrate that there was no deceptive intent, and pay additional fees.

- 78. VIS submitted the forged '341 Application Declaration with intent to deceive the USPTO into believing that the each of the named inventors of the '341 Application had personally executed the '341 Application Declaration.
- 79. USPTO records indicate that the '341 Application eventually issued as the '492 Patent.
- 80. Based upon the foregoing submission of a forged signature to the USPTO during prosecution of the '341 Application, the resulting issued claims of the '492 Patent are unenforceable due to inequitable conduct.
- 81. Furthermore, VIS submitted copies of the forged '341 Application Declaration in connection with the prosecution of the applications resulting in the '711, '268, and '381 Patents. In addition, the '711, '268, '381, '733, and '398 Patents purport to claim priority to the filing date of the '341 application.

- 82. Based upon the inequitable conduct committed by Dr. Tiehong Wang during the prosecution of the '341 Application, the issued claims of the '492, '711, '268, '381, '733, and '398 Patents are unenforceable.
- 83. One or more persons involved in the prosecution of the patents-in-suit also withheld materially relevant information from the USPTO with intent to deceive the USPTO. In particular, several individuals involved with the prosecution of the '341 application, including Dr. Tiehong Wang and Mr. Christopher Tobin, were also involved in the prosecution of the '418 application and U.S. patent application no. 13/067,079 ("the '079 application").
- 84. According to USPTO records, the '341 application was filed on June 24, 2005, and issued as the '492 Patent on March 1, 2011. According to USPTO records, the '341 application was examined at the USPTO by Examiner Charles Appiah, Examiner Bryan J. Fox, Examiner George Eng, and Examiner Brandon J. Miller.
- 85. According to USPTO records, Examiner Miller also conducted the examination of application no. 12/929,408 ("the '408 application"), which issued as the '711 Patent, application no. 13/268,001 ("the '001 application"), which issued as the '268 Patent, and application no. 13/397,156 ("the '156 application"), which issued as the '381 Patent.
- 86. According to USPTO records, the '418 application was filed on May 22, 2007, and issued as the '733 Patent on June 7, 2011. According to USPTO records, the '418 application was examined at the USPTO by Examiner Kyu Chae, Examiner Quan Hua, and Examiner Nick Corsaro.
- 87. According to USPTO records, the '079 application was filed on May 6, 2011, and issued as the '398 Patent on March 13, 2012. According to USPTO records, the '079 application was examined at the USPTO by Examiner Hua and Examiner Corsaro.

- application, VIS submitted 20 prior art patents and patent applications for Examiner Fox and Examiner Miller's consideration, as well as a Notification of an International Search Report and Written Opinion of the International Searching Authority for international application no. PCT/US05/25284. Examiner Fox and Examiner Miller cited a total of 21 more references that they located and considered relevant to the '341 application.
- 89. According to USPTO records, on February 27, 2008, Examiner Miller issued an Office Action that rejected all of the claims in the '341 application. In the Office Action, Examiner Miller cited as relevant to prosecution of the '341 application U.S. published patent application no. 2007/0287498, which is the pre-grant publication of the '418 application that issued as the '733 Patent. In the Office Action, Examiner Miller also cited as relevant to prosecution of the '341 application U.S. Patent No. 6,970,127, issued to Rakib ("Rakib"). In the Office Action, Examiner Miller rejected several pending claims in the '341 application as obvious in view of US published patent application no. 2006/0001737 to Dawson ("Dawson") in combination with Rakib.
- 90. The citation to the pre-grant publication of the '418 application in the prosecution of the '341 application demonstrates that information materially relevant to the '341 application would also be considered materially relevant to the '418 application.
- 91. Dr. Tiehong Wang testified that she reviewed Rakib and noted in her handwriting on a copy of Rakib: "Caution, Important Art."
- 92. Dr. Tiehong Wang testified that as soon as she read Rakib, she gave it to her patent attorney, Mr. Christopher Tobin, because he was in charge of communicating with the USPTO regarding VIS's patent applications.

- 93. Mr. Christopher Tobin testified that he had no recollection of Dr. Wang providing the Rakib reference to him, or of considering whether the document was material to patentability of the '418 application.
- 94. Mr. Tobin testified that in situations where he was given references to submit to the USPTO by a client, he would cite the references to the USPTO.
- 95. According to USPTO records, the prosecution of the '418 application before Examiner Hua lasted from May 22, 2007, until June 7, 2011. During the prosecution of the '418 application, neither Dr. Tiehong Wang nor her patent attorney Mr. Tobin submitted Rakib for Examiner Hua's consideration.
- 96. According to USPTO records, the prosecution of the '079 application before Examiner Hua lasted from May 6, 2011, until March 13, 2012. During the prosecution of the '079 application, neither Dr. Tiehong Wang nor her patent attorney Mr. Tobin submitted Rakib for Examiner Hua's consideration.
- 97. According to USPTO records, Examiner Hua was not made aware of Rakib at any time during the prosecution of the '418 application.
- 98. According to USPTO records, Examiner Hua was not made aware of Rakib at any time during the prosecution of the '079 application.
- 99. The '418 and '079 applications claim priority to the '341 application. The specification and figures of the '418 and '079 applications include substantially all of the disclosure from the '341 application.
- 100. VIS did not submit to Examiner Hua or any other examiner at the USPTO in charge of the '418 and '079 applications any of the references that were cited by Examiner Miller in the '341 application, including Rakib.

- 101. According to USPTO records, on October 7, 2010, representatives of VIS, including Dr. Tiehong Wang and Christopher Tobin, conducted an interview with Examiner Miller in connection with the '341 application.
- 102. According to USPTO records, on October 7, 2010, the same day as the interview in the '341 application, representatives of VIS, including Dr. Tiehong Wang and Christopher Tobin, conducted an interview with Examiner Hua about the "prior art of record" in the prosecution of the '418 application.
- 103. According to information and belief, the VIS representatives did not inform Examiner Hua of Rakib or any other references cited against the '341 application, or other references made of record in the '341 application.
- 104. According to USPTO records, Dr. Tiehong Wang and Christopher Tobin also conducted other interviews with Examiner Hua regarding the '418 and '079 applications while one or more of the '341, '408, '001, and '156 applications were also being prosecuted before Examiner Miller. Upon information and belief, Dr. Tiehong Wang and Christopher Tobin never disclosed the Rakib reference to Examiner Hua in either the '418 or '079 applications.
- 105. According to USPTO records, the '418 application issued as the '733 Patent without Examiner Hua considering Rakib and other important prior art references identified as pertinent and/or relied upon by Examiners Fox and Miller in the '341 application.
- 106. Upon information and belief, VIS and its representatives did not submit an Information Disclosure Statement or otherwise notify Examiner Hua of material references form the '341 application because they wanted to avoid examination and rejections based on Rakib and other references in the '418 and '079 applications.

- 107. The '733 and '398 patents would not have issued but for Dr. Wang and Mr. Tobin failing to disclose Rakib to the USPTO in connection with the prosecution of the '418 and '079 applications, at least because Rakib disclosed or rendered obvious one or more issued claims of the '733 and '398 patents.
- 108. At least Dr. Tiehong Wang was involved in the prosecution of the '418 and '079 application, was aware of Rakib, knew that it was material to the patentability and important art because it was cited in an application that an examiner identified as pertinent, and withheld Rakib and other material references from the USPTO with intent to deceive the USPTO to believe that the claims of the '733 and '398 Patents were novel and non-obvious.
- 109. Based upon the foregoing decision to withhold material evidence, the claims of the '733, and/or '398 Patents are unenforceable due to inequitable conduct caused by failing to fulfill the duty of candor required of anyone substantively involved in the prosecution of a patent before the USPTO.

#### DEMAND FOR JURY TRIAL

110. Samsung demands a trial by jury on all issues so triable.

#### PRAYER FOR RELIEF

WHEREFORE, Samsung requests entry of judgment in its favor and against VIS as follows:

That the Court enter judgment against VIS and in favor of Samsung, and that VIS's Complaint be dismissed with prejudice;

A declaration that Samsung has not infringed, contributed to the infringement of, or induced others to infringe, either directly or indirectly, any valid claim of the '492, '711, '268, '381, '733 and '398 Patents;

A declaration that the claims of the '492, '711, '268, '381, '733 and '398 Patents are invalid;

A declaration the claims of the '492, '711, '268, '381, '733 and '398 Patents are unenforceable;

That VIS take nothing by reason of this lawsuit;

That the Court declare this an exceptional case under 35 U.S.C. § 285;

That the Court award attorney's fees and costs to Samsung; and

That the Court award Samsung such other and further relief as this Court may deem just and appropriate.

Dated:	August	7.	201	. 3
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Respectfully submitted,

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## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

٧.

SAMSUNG ELECTRONICS CO., LTD, SAMSUNG ELECTRONICS AMERICA, INC. and SAMSUNG TELECOMMUNICATIONS AMERICA LLC,

Defendants.

Case No. 2:12-CV-0548-MSD-DEM

PLAINTIFF VIRGINIA INNOVATION SCIENCES, INC.'S MEMORANDUM IN SUPPORT OF MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

DATED: August 13, 2013

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### I. INTRODUCTION

Defendants' Thirteenth Counterclaim alleging inequitable conduct was filed in an effort to manufacture perceived leverage in advance of the settlement conference and to cast a dark cloud over the validity of the patents-in-suit and paint the patentees as bad actors. This is the very type of claim that the Federal Circuit chastised and sought to preclude in its opinion in *Therasense*. <sup>1</sup>

Defendants' claim is based on the following two points:

- (1) In connection with filing the application for the '492 patent, Dr. Ann Wang signed the declaration of inventorship on behalf of her co-inventor, Professor William Halal, and pursuant to his explicit request and authorization, instead of Professor Halal signing it personally; and
- (2) In connection with the prosecution of the '733 and '398 patents, the patentees did not disclose art that was disclosed during the prosecution of their parent, the '492 patent.

With respect to (1), it is black letter law that technical errors, made without deceptive intent, are not inequitable conduct. *See Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1343 (Fed. Cir. 2000). There is absolutely no evidence that Dr. Ann Wang signed Professor Halal's name with deceptive intent.

With respect to (2), the Manual for Patent Examination Procedure § 609.02 specifically states that a patentee is not required to cite art in a continuation-in-part that was cited in a parent application. Rather, MPEP § 609.02 states that an examiner will consider such information automatically. The Federal Circuit has held that it cannot be inequitable conduct for an applicant not to resubmit art in a continuation-in-part that was cited in the parent. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 547 (Fed. Cir. 1998).

<sup>&</sup>lt;sup>1</sup> Therasense, Inc. v. Becton, Dickson and Co., 649 F.3d 1276, 1288-90 (Fed. Cir. 2011) (en banc) ("This court now tightens the standards for finding both intent and materiality in order to redirect a doctrine that has been overused to the detriment of the public.").

In addition to not having merit, Defendants filed their Thirteenth Counterclaim six days before the dispositive motion deadline without notifying Virginia Innovation, without receiving consent to file, and without obtaining leave of Court. This is directly in violation of Fed. R. Civ. P. 15. For the reasons stated herein, Defendants' counterclaims should be struck or, in the alternative, summary judgment should be granted in favor of Virginia Innovation.

#### II. STATEMENT OF UNDISPUTED FACTS

#### A. Defendants' Thirteenth Counterclaim.

- 1. On July 22, 2013, pursuant to Fed. R. Civ. P. 15(a)(2), Virginia Innovation filed its Consent Motion for Leave to File a First Amended Complaint ("FAC"). [Doc. 113].
  - 2. On July 24, 2013, the Court granted Virginia Innovation's motion. [Doc. 117].
- 3. Following the Court's July 24, 2013 Order, Virginia Innovation filed its FAC. [Doc. 121].
- 4. The FAC was filed for two purposes: (1) to reflect the significant reduction in asserted claims and accused products that Virginia Innovation had agreed to in an effort to narrow the issues in this case; and (2) to add Count VIII, alleging willful infringement of the patents-in-suit. *See* Consent Motion [Doc. 113]; FAC [Doc. 121].
- 5. Virginia Innovation filed its FAC five days after it conducted the 30(b)(6) deposition of Defendants' corporate representative, Woojong Lee, on the 30(b)(6) topics related to willful infringement. Exhibit 4, Third Amended 30(b)(6) Notice ¶¶ 35, 36 and 47; Exhibit 5, Depo. W. Lee, 8:22-9:13.
- 6. Virginia Innovation had been requesting deposition dates on at least topics 35 and 36 since April 2013. Exhibit 6, Original 30(b)(6) Deposition Notice.

- 7. Virginia Innovation's FAC did not add any new patents to this lawsuit. *Compare* Original Complaint [Doc. 1] *with* FAC [Doc. 121].
- 8. On August 7, 2013, Defendants filed their Answer, Affirmative Defenses and Counterclaims to the FAC ("Amended Counterclaims"). [Doc. 131].
- 9. Defendants' Amended Counterclaims added a Thirteenth Counterclaim for inequitable conduct. [Doc. 131].
- 10. Defendants' Original Answer, Affirmative Defenses and Counterclaims in this action did not plead inequitable conduct as an affirmative defense or counterclaim. Original Counterclaims [Doc. 28].
- 11. Defendants did not obtain Virginia Innovation's consent, or leave of court, to file their Amended Counterclaims, including their Thirteenth Counterclaim.
- 12. Defendants filed their Thirteenth Counterclaim on August 7, 2013, six days before the deadline to file dispositive motions in this matter. Amended Counterclaims [Doc. 131]; Scheduling Order [Doc. 56].
- 13. Defendants' Thirteenth Counterclaim is premised on two arguments: (1) an allegedly improper signature in connection with the patent application that ultimately issued as U.S. Patent No. 7,899,492; and (2) the alleged failure to cite certain prior art references in connection with the prosecution of U.S. Patent Nos. 7,957,933 and 8,135,398. Amended Counterclaims ¶ 70-109.
- 14. Defendants' first argument relies on evidence obtained from documents produced in this case months ago, the deposition of Dr. Tiehong (Ann) Wang ("Dr. Ann Wang"), which was completed on March 28, 2013, and the deposition of Professor William Halal, which was

- completed on July 24, 2013. Exhibit 7, Dec. for Pat. Application; Exhibit 8, Depo. Dr. Ann Wang (Mar. 27, 2013); Exhibit 9, Depo. W. Halal (July 24, 2013).
- 15. Defendants waited until June 24, 2013, to subpoena Professor Halal in this matter, despite the fact that discovery in this matter began January 23, 2013. Exhibit 10, Subpoena to W. Halal (protective order attachment omitted); Rule 26(f) Pretrial Order [Doc. 40].
- 16. Defendants' second argument relies on the patents-in-suit, their file histories, the deposition of Dr. Ann Wang, which was completed on March 28, 2013, and the deposition of Christopher Tobin, which was completed on May 16, 2013. *See* Amended Counterclaims ¶¶ 70-109; Exhibit 8, Depo. Dr. Ann Wang (Mar. 28, 2013); Exhibit 11, Depo. C. Tobin (May 16, 2013).

## B. Professor Halal's Signature.

- 17. On June 24, 2005, Dr. Ann Wang filed U.S. Patent Application No. 11/165,341 ("the '341 application"). Exhibit 7, Dec. for Pat. Application.
- 18. The '341 application named Tiejun (Ronald) Wang, William E. Halal, Tiehong (Ann) Wang and Ximing Wang as co-inventors. *Id*.
  - 19. The '341 application contained signatures on behalf of all co-inventors. *Id*.
- 20. Dr. Ann Wang filed the '341 application *pro se*, without the assistance of counsel. Exhibit 1, Dec. Dr. Ann Wang ¶ 8.
- 21. Dr. Ann Wang is not an attorney and at the time of the filing of the '341 patent application she had no formal legal training. Exhibit 1, Dec. Dr. Ann Wang ¶ 8.
- 22. At the time she filed the '341 application, Dr. Ann Wang did not know that original signatures were required on the declaration of inventorship. Exhibit 1, Dec. Dr. Ann Wang ¶ 9.

- 23. Dr. Ann Wang signed the '341 application on behalf of Professor Halal pursuant to Professor Halal's authorization. Exhibit 9, Depo. W. Halal 92:2-24, 102:5-103:8; Exhibit 1, Dec. Dr. Ann Wang ¶ 10-12; Exhibit 2, Dec. W. Halal ¶ 5-7.
- 24. Dr. Ann Wang was merely extending Professor Halal a courtesy so he did not have to drive in the Washington, D.C. traffic to Virginia to meet her to sign the declaration. Exhibit 9, Depo. W. Halal 92:2-24; Exhibit 1, Dec. Dr. Ann Wang ¶¶ 10-11; Exhibit 2, Dec. W. Halal ¶¶ 5-7.
- 25. Professor Halal was merely attempting to avoid having to drive through Washington, D.C. traffic to Virginia to personally sign the '341 application. Exhibit 9, Depo. W. Halal 92:2-24; Exhibit 1, Dec. Dr. Ann Wang ¶ 10-11; Exhibit 2, Dec. W. Halal ¶ 5-7.
- 26. During her deposition, Dr. Ann Wang testified that she did not remember how she obtained the signatures of the co-inventors on the '341 application. Exhibit 8, Depo. Dr. Ann Wang 178:7-12.
- 27. Dr. Ann Wang testified that she did not remember how Professor Halal's signature was obtained. Exhibit 8, Depo. Dr. Ann Wang 178:7-12.
- 28. During her deposition, Dr. Ann Wang testified that, to the best of her knowledge at the time of her deposition, Professor Halal personally signed the '341 application. Exhibit 8, Depo. Dr. Ann Wang 180:20-24.
- 29. Following Professor Halal's deposition on July 24, 2013, Dr. Ann Wang reviewed Professor Halal's testimony regarding the signature, which refreshed her recollection that she signed Professor Halal's name to the declaration pursuant to his authorization. Exhibit 1, Dec. Dr. Ann Wang ¶ 13.

- 30. In signing Professor Halal's signature, Dr. Ann Wang did not intend to deceive the United States Patent and Trademark Office ("PTO"). Exhibit 1, Dec. Dr. Ann Wang ¶ 12.
- 31. In authorizing Dr. Ann Wang to sign his name to the '341 application, Professor Halal did not intend to deceive the PTO. Exhibit 2, Dec. W. Halal ¶ 7.
- 32. Virginia Innovation is currently in the process of submitting a supplemental declaration with the PTO that will contain Professor Halal's original signature. Exhibit 1, Dec. Dr. Ann Wang ¶ 14.
- 33. Professor Halal was correctly named as a co-inventor on the '341 application.

  Exhibit 9, Depo. W. Halal 102:5-103:8; Exhibit 1, Dec. Dr. Ann Wang ¶¶ 15-16; Exhibit 2, Dec.

  W. Halal ¶¶ 8-9.
- 34. Professor Halal contributed to at least one claim in the '492 patent. Exhibit 9, Depo. W. Halal 102:5-103:8; Exhibit 1, Dec. Dr. Ann Wang ¶¶ 15-16; Exhibit 2, Dec. W. Halal ¶¶ 8-9.
- 35. During prosecution of the '492 patent Professor Halal, as a co-inventor of the '492 patent, personally signed the Power of Attorney form appointing the law firm Collier Shannon Scott as prosecution counsel. Exhibit 12, Power of Attorney; Exhibit 2, Dec. W. Halal ¶ 10.
- 36. During prosecution of the '492 patent Professor Halal personally signed a Revocation of Power of Attorney and New Power of Attorney appointing the law firm Rader, Fishman & Grauer PLLC as prosecution counsel. Exhibit 13, Revocation of Power of Attorney; Exhibit 2, Dec. W. Halal ¶ 11.
- 37. Professor Halal personally signed the declaration of inventorship submitted in conjunction with U.S. Patent Application No. 11/802,418, which issued as the '733 patent, and

U.S. Patent Application No. 13/067,079, which issued as the '398 patent. Exhibit 14, '733 Dec. of Inventorship; Exhibit 40, '398 Dec. of Inventorship; Exhibit 2, Dec. W. Halal ¶ 12.

#### C. Disclosure of Certain References in Connection with the '733 and '398 Patents.

- 38. The '492 patent, which issued from the '341 application, is a parent to the '733 and '398 patents. Exhibit 16, '733 patent; Exhibit 17, '398 patent.
  - 39. The '733 and '398 patents are continuations-in-part of the '492 patent. *Id.*
  - 40. The '733 and '398 patent specifications state, as originally filed:

As a continuation of U.S. Application Ser. No. 11/802,418, this application is also a continuation-in-part of Application Ser. No. 11/165,341, filed on June 24, 2005 and entitled "Methods, Systems, and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks," which claims priority to provisional Application Ser. No. 60/588,358, filed on July 16, 2004 and entitled "A Method and System for Displaying the Multimedia Information from Wireless Communications or Portable IT." The entire contents of these applications are also hereby incorporated by reference.

Exhibit 18, Original Specification '733 patent, VIS002067; Exhibit 19, Original Specification '398 patent, VIS002389.

- 41. Defendants' Thirteenth Counterclaim is focused on U.S. Patent No. 6,970,127 to Rakib ("Rakib"). Amended Counterclaims ¶ 83-109.
- 42. Defendants Thirteenth Counterclaim also identifies U.S. Publication No. 2006/0001737 to Dawson ("Dawson"). *Id.* ¶ 89.
- 43. Defendants' Thirteenth Counterclaim generally avers to thirty-nine additional alleged prior art references that Defendants contend were cited in the '341 application, but not during prosecution of the '733 and '398 patents. *Id.* ¶ 88.
- 44. Rakib and Dawson were cited by the examiner in the '341 application on February 21, 2008 in a Notice of References Cited. Exhibit 20, Notice of References Cited (Feb. 21, 2008).

- 45. Rakib and Dawson were cited by the examiner again in the '341 application on March 24, 2009 in a Notice of References Cited. Exhibit 21, Notice of References Cited (Mar. 24, 2009).
- 46. The examiner in the '733 and '398 patents performed prior art searches in each respective prosecution after the references relied on by Defendants were cited by the examiner in the '492 patent prosecution. Exhibit 38, '733 Notice of References Cited; Exhibit 39, '398 Notice of References Cites.
  - 47. The '733 patent issued on June 7, 2011. Exhibit 16, '733 patent.
  - 48. The '398 patent issued on March 13, 2012. Exhibit 17, '398 patent.
- 49. Rakib and Dawson were cited by the examiner in the '341 application before the '733 and '398 patents issued and before the examiner in the '733 and '398 patents performed a prior art search. *Supra* ¶¶ 44-48.
- 50. On August 22, 2007, in prosecuting the '492 patent, the patentees filed an amendment in response to the June 13, 2007 Office Action ("August 22 Amendment"). Exhibit 22, August 22 Amendment.
- 51. On February 27, 2008, the PTO issued an Office Action rejecting currently pending claims 69, 86, 104, 119, 123 and 127 in light of Dawson in view of Rakib. Exhibit 23, Feb. 27, 2008 Office Action.
- 52. Rakib was not relied on to reject any other claims in the February 27 Office Action. *Id*.
- 53. Rakib was relied on to reject claims 69, 86 and 104 because Rakib disclosed a personal digital assistant. *Id.*

- 54. Rakib was relied on to reject claims 119, 123 and 127 because, according to the examiner, Rakib disclosed a television set that implements one or more the following standards: NTSC, PAL or SECAM. *Id*.
- 55. On September 17, 2008, the PTO issued an Office Action, relying on Rakib for the sole purpose of disclosing a personal digital assistant and a television set that implements one or more of the following standards: NTSC, PAL or SECAM. Exhibit 25, Sept. 17, 2008 Office Action, VIS001581-82.
- 56. On March 27, 2009, the PTO issued an Office Action, relying on Rakib for the sole purpose of disclosing a personal digital assistant, an analog display device, and a television set that implements one or more of the following standards: NTSC, PAL or SECAM. Exhibit 27, Mar. 27, 2009 Office Action, VIS001512-13.
- 57. On January 4, 2010, the PTO issued an Office Action, relying on Rakib for the sole purpose of disclosing a personal digital assistant, an analog display device, and a television set that implements one or more of the following standards: NTSC, PAL or SECAM. Exhibit 29, Jan. 4, 2010 Office Action, VIS001459-61.
- 58. On July 20, 2010, the PTO issued an Office Action, relying on Rakib for the sole purpose of disclosing a personal digital assistant, an analog display device, and a television set that implements one or more of the following standards: NTSC, PAL or SECAM. Exhibit 31, July 20, 2010 Office Action, VIS001390-92.
- 59. In response to the February 27, 2008, September 18, 2008, March 27, 2009, January 4, 2010 and July 20, 2010 Office Actions, the patentees distinguished Rakib stating: "There is no disclosure of any kind in Rakib of receiving and converting a video signal for display on an alternative display terminal, even in a general sense." Exhibit 24, Response Feb.

- 27, 2008 Office Action, VIS001608; Exhibit 26, Response Sept. 18, 2008 Office Action, VIS001569; Exhibit 28, Mar. 27, 2009 Office Action, VIS001498; Exhibit 30, Response Jan. 4, 2010 Office Action, VIS001444; Exhibit 32, Response July 20, 2010 Office Action, VIS001376.
- 60. None of the claims in the '733 patent require a personal digital assistant, an analog display or a television set that implements one of the following standards: NTSC, PAL or SECAM. See Exhibit 16, '733 patent.
- None of the claims in the '398 patent require a personal digital assistant, an analog display or a television set that implements one of the following standards: NTSC, PAL or SECAM. See Exhibit 17, '398 patent.
- 62. On August 5, 2013, Defendants served the Expert Report of Dr. Kevin C. Almeroth Concerning the Invalidity of U.S. Patent Nos. 7,899,492, 8,050,711, 8,145,268, 8,224,381, and 8,135,398 ("Almeroth Report"). Exhibit 33, Almeroth Report.<sup>2</sup>
- 63. Dr. Almeroth did not render any opinions concerning the validity of the '733 patent. *Id*.
- 64. The only reference relied on by Defendants in their Thirteenth Counterclaim that Dr. Almeroth opined on was Rakib. *Compare* Amended Counterclaims ¶¶ 70-109 *with* Almeroth Report.
- 65. Dr. Almeroth does not offer any opinions regarding the validity of any of the patents-in-suit based on any of the other forty references averred to in Defendants' Thirteenth Counterclaim. *Id*.
- 66. Dr. Almeroth does not identify where Rakib discloses the following limitation from claim 15 of the '398 patent: "converting the multimedia content item for reproduction

<sup>&</sup>lt;sup>2</sup> To avoid filing under seal, only relevant excerpts from Dr. Almeroth's Report are included.

according to a determined signal format of the destination device." *Id. See also* Exhibit 34, Excerpt from Exhibit to Almeroth Report comparing Rakib to claim 15 of '398 patent.

- 67. At a minimum, Rakib does not disclose the limitation "converting the multimedia content item for reproduction according to a determined signal format of the destination device." *See* Exhibit 35, Rakib.
- 68. Dr. Almeroth does not offer any opinions concerning Dawson. Exhibit 33, Almeroth Report.
- 69. At a minimum, Dawson does not disclose the limitation "converting the multimedia content item for reproduction according to a determined signal format of the destination device." Exhibit 36, Dawson.
- 70. On a copy of Rakib Dr. Ann Wang wrote "caution important art" next to claim 1. Exhibit 35, Rakib.
- 71. At her deposition, Dr. Ann Wang did not remember when she wrote the words "caution important art," including whether they were written in connection with prosecuting any of the patents-in-suit, prosecuting a patent that is not in suit, or during the course of her other activities as an inventor at Virginia Innovation. Exhibit 8, Depo. Dr. Ann Wang 282:14-24, 283:15-285:6; see also Exhibit 1, Dec. Dr. Ann Wang ¶¶ 19-20.
- 72. Dr. Ann Wang did not intend to deceive the PTO by not disclosing during prosecution of the '733 and '398 patents the references cited during prosecution of the '492 patent. Exhibit 1, Dec. Dr. Ann Wang ¶ 18.

# III. DEFENDANTS' THIRTEENTH COUNTERCLAIM SHOULD BE STRUCK FOR FAILURE TO COMPLY WITH RULE 15

Fed. R. Civ. P. 15(a)(2) allows a party to amend its pleading only with the opposing party's written consent or the court's leave. Fed. R. Civ. P. 15(a)(2). In response to an amended complaint, an amended response may be filed without leave only when the amended complaint changes the theory or scope of the case, and then, the breadth of the changes in the amended response must reflect the breadth of the changes in the amended complaint. Elite Ent't, Inc. v. Khela Bros. Ent't, 227 F.R.D. 444, 446 (E.D. Va. May 13, 2005). This is consistent with Rule 15's requirement that an amended response must "plead in response" to the amended pleading. Id. at 447. As one court reasoned, "[i]f every amendment, no matter how minor or substantive, allowed defendants to assert counterclaims or defenses as of right, claims that would otherwise be barred or precluded could be revived without cause. This would deprive the Court of its ability to effectively manage the litigation." See Panoceanis Maritime, Inc. v. M/V Eula B. Devall, 2013 WL 264616 \*3 (E.D. La. Jan. 23, 2013) (quoting E.E.O.C. v. Morgan Stanley & Co., 211 F.R.D. 225, 227 (S.D.N.Y. 2002)); see also Upek, Inc. v. Authentec, Inc., 2010 WL 2681734 \*2-3 (N.D. Cal. July 6, 2010) (finding that the reasoning in Elite Ent't was superseded by 2009 Amendment to Rule 15 and that a party who was not obligated to assert any new counterclaims in response to amended complaint was barred from doing so absent consent or leave of court).

Defendants' Thirteenth Counterclaim does not reflect the breadth of the changes in the FAC. Defendants for the first time have presented a claim of inequitable conduct. *Compare*Amended Counterclaim ¶¶ 70-109 [Doc. 131] *with* Original Counterclaims [Doc. 28]. This

<sup>&</sup>lt;sup>3</sup> All emphasis herein is added unless otherwise noted.

claim is not tied to Virginia Innovation's allegation of willful infringement. As a result, the same should be struck for failure to comply with Rule 15.

Defendants should also not be granted leave to file their Amended Counterclaims. Leave to amend shall "be freely given when justice so requires." Fed. R. Civ. P. 15(a)(2). The following factors guide a court's determination of whether a motion to amend should be granted: (1) undue delay; (2) bad faith; (3) futility to amendment; and (4) prejudice to the opposing party. Elite Ent't, 227 F.R.D. at 447. To the extent Defendants request leave to amend, their request should be denied due to their undue delay and the prejudice to Virginia Innovation.

As discussed in more detail herein, Defendants' Thirteenth Counterclaim is premised on two arguments: (1) the fact that Dr. Ann Wang signed her co-inventor's signature on the declaration of inventorship for the '492 patent pursuant to his request and authorization, rather than Professor Halal personally signing; and (2) the alleged failure to cite certain prior art references in connection with the prosecution of U.S. Patent Nos. 7,957,933 and 8,135,398 despite these references being cited during prosecution of their parent, the '492 patent. Amended Counterclaims ¶ 70-109. All of the evidence Defendants rely on in support of their Thirteenth Counterclaim, with the exception of Professor Halal's deposition, was in Defendants' possession on May 17, 2013, approximately three months ago. On April 30, 2013, Defendants served their Second Supplemental Response to Virginia Innovation's Interrogatory No. 7, which,

<sup>&</sup>lt;sup>4</sup> Defendants' first argument relies on the file histories for the patents-in-suit, the deposition of Tiehong (Ann) Wang ("Dr. Ann Wang"), which was completed on Mar. 28, 2013, and the deposition of Professor William Halal, which was completed on July 24, 2013. Exhibit 7, Dec. for Pat. Application; Exhibit 8, Depo. Dr. Ann Wang, (Mar. 28, 2013); Exhibit 9, Depo. W. Halal (July 24, 2013). Defendants' second argument relies on the patents-in-suit, their file histories, the deposition of Dr. Ann Wang, which was completed on March 28, 2013, and the deposition of Christopher Tobin, which was completed on May 16, 2013. *See* Amended Counterclaims ¶¶ 70-109; Exhibit 8, Depo. Dr. Ann Wang; Exhibit 11, Depo. C. Tobin (May 16, 2013).

in many instances, is almost a verbatim recitation of Defendants' Thirteenth Counterclaim.

Compare Exhibit 37, Def. Second Supp. Resp. Inter. No. 7 with Amended Counterclaims ¶¶ 70109 [Doc. 131]. Despite this, Defendants waited for more than three months until six days
before the deadline to file dispositive motions to raise their allegation of inequitable conduct.

With respect to Professor Halal's deposition, Defendants were aware of the alleged improper signature at least as early as Dr. Ann Wang's deposition, which was completed on March 28, 2013. Despite this, Defendants waited until June 24, 2013 to subpoena Professor Halal, conducted his deposition on July 24, 2013 and then waited an additional 14 days to raise the issue of inequitable conduct. Exhibit 10, Subpoena W. Halal; Exhibit 9, Depo. W. Halal. This constitutes undue delay.

Defendants' undue delay and untimely filing of their Thirteenth Counterclaim is prejudicial to Virginia Innovation. By waiting until the eve of the dispositive motion deadline in this matter, Defendants have forced Virginia Innovation to file a dispositive motion without the benefit of conducting discovery on this counterclaim or even an identification of the purported prior art references that Defendants contend were not, and should have been, disclosed to the PTO during prosecution of the '733 and '398 patents. This is prejudicial.

In addition, Defendants are forcing Virginia Innovation to file a dispositive motion on the issue of inequitable conduct without the benefit of retaining an expert on the issue or the benefit of offering technical opinion testimony regarding the materiality of the references Defendants rely on. By filing their Thirteenth Counterclaim six days before the dispositive motion deadline, there was no opportunity for Virginia Innovation to locate and retain an expert on the issue of

<sup>&</sup>lt;sup>5</sup> Defendants' Original Answer and Counterclaims did not raise inequitable conduct as an affirmative defense or counterclaim. Original Counterclaims [Doc. 28].

inequitable conduct. This is prejudicial. As a result, to the extent Defendants now request leave to file their Thirteenth Counterclaim, the same should be denied.<sup>6</sup>

# IV. <u>LEGAL STANDARDS GOVERNING VIRGINIA INNOVATION'S</u> SUMMARY JUDGMENT MOTION

## A. Legal Standards Governing Summary Judgment.

The Federal Rules of Civil Procedure provide that a district court "shall grant" summary judgment in favor of a movant if such party "shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." *Morpho Detection, Inc.* v. *Smiths Detection, Inc.*, 2012 WL 5879851 \*1 (E.D. Va. Nov. 21, 2012) (quoting Fed. R. Civ. P. 56(a)). The mere existence of some alleged factual dispute between the parties "will not defeat an otherwise properly supported motion for summary judgment; the requirement that there be no genuine issue of material fact." *Id.* 

Once a movant has properly advanced evidence supporting entry of summary judgment, the non-moving party may not rest upon the mere allegations of the pleadings, but instead must set forth specific facts in the form of exhibits and sworn statements illustrating a genuine issue for trial. *Id.* at \*2. At that point, "the judge's function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial." *Id.* In doing so, the judge must construe the facts in the light most favorable to the non-moving

<sup>&</sup>lt;sup>6</sup> To the extent the Court decides to allow Defendants' Thirteenth Counterclaim to stand, and is not going to grant Virginia Innovation's motion for summary judgment, Virginia Innovation respectfully requests additional time to retain an expert witness on this issue and file a supplemental motion for summary judgment. As the Federal Circuit has recognized, the remedy for inequitable conduct, rendering the entire patent, and potentially related patents, unenforceable, is the "atomic bomb" of patent law that can endanger a substantial portion of a company's patent portfolio. *Therasense*, 649 F.3d at 1288. If the Court is going to allow Defendants' Thirteenth Counterclaim to proceed Virginia Innovation should, at a minimum, be afforded the opportunity to retain an expert and file a supplemental motion for summary judgment on this issue with more than six days' notice.

party, and may not make credibility determinations. *Id*. After viewing the evidence in the non-movant's favor, "the judge must ask himself not whether he thinks the evidence unmistakably favors one side or the other but whether a fair-minded jury could return a verdict for the [non-movant] on the evidence presented." *Id*. If the "non-movant's evidence 'is merely colorable, or is not significantly probative, summary judgment may be granted." *Id*.

## B. Legal Standards Governing Inequitable Conduct.

In 2011 the Federal Circuit redefined the inequitable conduct doctrine, recognizing the predominant overuse of the doctrine and the proliferation of using allegations of inequitable conduct as a litigation strategy rather than a meritorious claim. *Therasense, Inc. v. Becton, Dickinson and Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc). As the Federal Circuit recognized,

... inequitable conduct charges cast a dark cloud over the patent's validity and paint the patentee as a bad actor. Because the doctrine focuses on the moral turpitude of the patentee with ruinous consequences for the reputation of his patent attorney, it discourages settlement and deflects attention from the merits of validity and infringement issues.

*Id.* The Federal Circuit went on to state that "[i]nequitable conduct 'has been overplayed, is appearing in nearly every patent suit, and is cluttering up the patent system." *Id.* at 1289. As a result, the Federal Circuit "tightened" the standards for finding both intent and materiality "in order to redirect a doctrine that has been overused to the detriment of the public." *Id.* at 1290.

#### 1. Intent Requirement.

With respect to intent, the Federal Circuit stated:

To prevail on a claim of inequitable conduct, the accused infringer must prove that the patentee acted with the specific intent to deceive the PTO. A finding that the misrepresentation or omission amounts to gross negligence or negligence under a 'should have known' standard does not satisfy this intent requirement. 'In a case involving nondisclosure of information, clear and convincing evidence must show that the applicant made a deliberate decision to withhold a known material reference.' In other words, the

accused infringer must prove by clear and convincing evidence that the applicant knew of the reference, knew it was material, and made a deliberate decision to withhold it.

*Id.* (internal citations omitted). "Proving that the applicant knew of a reference, should have known of its materiality, and decided not to submit it to the PTO does not prove specific intent to deceive." *Id.* 

Intent may be inferred from indirect and circumstantial evidence. *Id.* "However, to meet the clear and convincing evidence standard, the specific intent to deceive must be 'the single most reasonable inference able to be drawn from the evidence." *Id.* The evidence "must be sufficient to require a finding of deceitful intent in light of all the circumstances." *Id.* When "there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found." *Id.* Further,

[b]ecause the party alleging inequitable conduct bears the burden of proof, the 'patentee need not offer any good faith explanation unless the accused infringer first ... prove[s] a threshold level of intent to deceive by clear and convincing evidence.' The absence of a good faith explanation for withholding a material reference does not, by itself, prove intent to deceive.

Id. at 1291 (internal citations omitted).

### 2. "But-For" Materiality Requirement.

The materiality required to establish inequitable conduct is "but-for" materiality.

Therasense, 649 F.3d at 1291. "When an applicant fails to disclose prior art to the PTO, the prior art is but-for material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art." *Id.* As a result, "the court must determine whether the PTO would have allowed the claim if it had been aware of the undisclosed reference." *Id.* "In making this

patentability determination, the court should apply the preponderance of evidence standard and give claims their broadest reasonable construction." *Id.*<sup>7</sup>

"Because inequitable conduct renders an entire patent (or even patent family) unenforceable, as a general rule, this doctrine should only be applied in instances where the patentee's misconduct resulted in the unfair benefit of receiving an unwarranted claim." *Id.* at 1292.

# V. <u>SUMMARY JUDGMENT IN FAVOR OF VIRGINIA INNOVATION IS</u> <u>WARRANTED</u>

Defendants' Thirteenth Counterclaim distills into two arguments: (1) the declaration of inventorship submitted in the '341 application did not contain the original signature of Professor William Halal; and (2) the patentees did not disclose prior art references in connection with the prosecution of the '733 and '398 patents that were cited in their parent, the '492 patent.

Defendants' inequitable conduct arguments are the very type of arguments the Federal Circuit sought to preclude in raising the bar in *Therasense*. There was absolutely no intent to deceive the PTO in this case. Defendants' arguments are premised on a technical violation of PTO procedure, which Virginia Innovation is in the process of correcting, and compliance with the Manual of Patent Examining Procedure. As a result, summary judgment in favor of Virginia Innovation is required.

<sup>&</sup>lt;sup>7</sup> The only exception to the "but-for" materiality requirement is where the patentee has engaged in affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit. *Therasense*, 649 F.3d at 1292. As discussed herein, no affirmative acts of egregious misconduct took place and therefore the exception is not applicable. Contrary to Defendants' contention, the declaration of inventorship is not a "false affidavit." It merely contained Professor Halal's authorized signature instead of him personally signing.

# A. Professor Halal's Authorized Signature Does Not Constitute Inequitable Conduct.

A ruling of inequitable conduct in the PTO must be supported by clear and convincing evidence of material misrepresentation, made with the intent to deceive or mislead the patent examiner. *Seiko Epson Corp. v. Nu-Kote Int'l, Inc.*, 190 F.3d 1360, 1367 (Fed. Cir. 1999). Technical violations of PTO procedures, absent fraud or intentional deception, are not inequitable conduct as would invalidate a patent. *Id.* "It is not in the public interest to bar all possibility of legal or equitable relief, when such is sought to correct a harmless error." *In re Bennett*, 766 F.2d 524, 526-28 (Fed. Cir. 1985). The courts have consistently rejected the notion of *per se* forfeiture based on non-fraudulent failure to comply with a rule of practice before the PTO. *Id.* at 1367-68 (citing *Herbert v. Lisle Corp.*, 99 F.3d 1109, 1116 (Fed. Cir. 1996) and *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1184 (Fed. Cir. 1995)).

In Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co., the declaration for inventorship was not personally signed by at least one of the named inventors, but was signed on his behalf with his authorization. 228 F.3d 1338, 1343 (Fed. Cir. 2000). In addition, during prosecution of the patent at issue, another declaration was submitted that did not contain original signatures of the inventors. Id. The defendant argued that this constituted inequitable conduct. Id. The Federal Circuit affirmed the District Court's finding that there was no evidence to support this position. Id. at 1344. Specifically, the District Court held that "technical errors, made without deceptive intent, could not be the basis for holding the patent invalid or unenforceable." Id.

In the present case, Dr. Ann Wang filed the '341 application *pro se*. Exhibit 1, Dec. Dr. Ann Wang ¶ 8. At the time she filed the '341 application, Dr. Ann Wang had no formal legal training. *Id.* ¶ 8. There are four named inventors on the '341 application: Tiejun (Ronald)

<sup>&</sup>lt;sup>8</sup> On March 1, 2011, the '341 application issued as the '492 patent. Exhibit 15, '492 patent.

Wang, William E. Halal, Tiehong (Ann) Wang and Ximing Wang. Exhibit 7, Dec. of Inventorship. The declaration of inventorship submitted with the '341 application bears the original signatures of Ronald Wang, Dr. Ann Wang and Ximing Wang. *Id.* Professor Halal's signature was signed by Dr. Ann Wang pursuant to his instruction and authorization. Exhibit 1, Dec. Dr. Ann Wang ¶¶ 10-12; Exhibit 2, Dec. Prof. Halal ¶¶ 5-7. As Professor Halal testified:

- Q: Did you authorize Dr. Ann Wang to sign your name on that document?
- A: Yes. We did that often, just for convenience. Rather than make a trip to her home in Virginia, I asked if she could sign for me.
- Q: If I can just ask you to take out Exhibit 18 very briefly. That is the Utility Patent Application.
- A: I got it.
- Q: If you can turn to page 3549. It's the page with well, your name and signature on it.
- A: Yes.
- Q: Did you authorize Dr. Dr. Ann Wang to sign your name on Exhibit 18?
- A: Yes.
- Q: Do you have any reason to believe that you didn't authorize her to sign your name?
- A: No.

Exhibit 9, Depo. Halal 92:12-17, 102:19-103:8. There is no dispute that Professor Halal authorized and instructed Dr. Ann Wang to sign his name to the '341 application. In addition, there is no dispute that Professor Halal is correctly a named inventor on the '492 patent and that he contributed to one or more of the inventions claimed in the '492 patent. *Id.* Defendants concur with Virginia Innovation as shown by their failure to raise any claim of improper inventorship in this case. *See generally* Amended Counterclaims [Doc. 131]. The fact that the declaration of inventorship contains Professor Halal's authorized signature, instead of his original signature, is harmless misunderstanding of technical PTO procedure that has absolutely no bearing on the issuance of the '492 patent.

When Dr. Ann Wang submitted the '341 application *pro se*, she was not aware of the PTO requirement that the declaration of inventorship contain original signatures of all co-

inventors. Exhibit 1, Dec. Dr. Ann Wang ¶ 9. She believed that signing on behalf of her coinventor, Professor Halal, following his instruction and authorization, was acceptable. *Id.* ¶ 9. Dr. Ann Wang did not sign Professor Halal's name with the intent to deceive the PTO. *Id.* ¶ 12. In addition, Dr. Ann Wang, on behalf of Virginia Innovation, has taken steps to correct the signature on the declaration of inventorship. *Id.* ¶ 14. Virginia Innovation has hired prosecution counsel to take steps to correct this issue. <sup>9</sup> *Id.* ¶ 14.

As in *Ajinomoto*, this is merely a technical misunderstanding of the PTO procedures. Defendants have not identified, nor could they, any evidence of intent to deceive the PTO. On the contrary, a good faith reason for the signature exists – Dr. Ann Wang was not aware of the original signature requirement and she followed Professor Halal's instruction and authorization and signed his name so he could avoid traveling to Virginia to sign the declaration of inventorship. *Id.* ¶ 10-12; Exhibit 2, Dec. Prof. Halal ¶ 5-7.

<sup>&</sup>lt;sup>9</sup> In addition, this Court has the authority to correct this issue pursuant to 35 U.S.C. § 256. See also MCV, Inc. v. King-Seeley Thermos Co., 870 F.2d 1568, 1570-71 (Fed. Cir. 1989); Stark v. Advanced Magnetics, Inc., 119 F.3d 1551, 1553-56 (Fed. Cir. 1997); Novo Industries, LP v. Micro Molds Corp., 350 F.3d 1348, 1356 (Fed. Cir. 2003).

<sup>&</sup>lt;sup>10</sup> Defendants' Thirteenth Counterclaim contends that Dr. Ann Wang testified that Professor Halal personally signed the declaration of inventorship. This allegation is misleading and false. Dr. Ann Wang testified as follows:

Q: Can you explain to me how you obtained the signatures of the co-inventors on the declaration?

A: I don't remember.

Q: Okay. Do you remember how Mr. Halal's signature was obtained?

A: Sorry, I don't.

Q: But your testimony here today is that you understand that Dr. Halal signed personally both Exhibit 18 on the declaration page and Exhibit 21, to the best of your knowledge?

A: Yes, sir.

Exhibit 8, Depo. Dr. Ann Wang 178:7-12, 180:20-24 (Mar. 27, 2013). As explained in the attached declaration, at the time of her deposition, to the best of her knowledge Dr. Ann Wang believed Professor Halal had personally signed the declaration of inventorship, which was submitted to the PTO over eight years ago. Exhibit 1, Dec. Dr. Ann Wang ¶ 13. Moments

To establish the intent requirement for inequitable conduct, Defendant must prove that specific intent to deceive is the single most reasonable inference able to be drawn from the evidence. *Therasense*, 649 F.3d at 1290. When there are multiple reasonable inference that may drawn, intent to deceive cannot be found. *Id.* At a minimum, multiple reasonable inferences can be drawn regarding the reason for submitting Professor Halal's signature. As a result, summary judgment on this issue is warranted.<sup>11</sup>

- B. The Patentees' Alleged Failure to Cite Purported Prior Art Cited in the '492 patent in Conjunction with the Prosecution of the '733 and '398 Patents Does Not Constitute Inequitable Conduct.
  - 1. The Patentee's did not have a Duty to Disclose Art Cited in a Parent Application.

The Manual for Patent Examination Procedure § 609.02 states in pertinent part:

When filing a continuing application that claims benefit under 35 U.S.C. § 120 to a parent application ..., it will not be necessary for the applicant to submit an information disclosure statement in the continuing application that lists the prior art cited by the examiner in the parent application .... The examiner of the continuing application will consider information which has been considered by the Office in the parent application.

before this question, Dr. Ann Wang testified that she did not remember how Professor Halal's signature was obtained. Exhibit 8, Depo. Dr. Ann Wang 178:7-12, 180:20-24. Since her deposition, having reviewed Professor Halal's deposition, Dr. Ann Wang recalls signing the declaration of inventorship pursuant to his request and authorization. Exhibit 1, Dec. Dr. Ann Wang ¶ 13. These actions do not support a finding of deceptive intent.

Application Declaration was inherently material to patentability because a false declaration is per se material, ...." Amended Counterclaims ¶ 77 [Doc. 131]. First, Defendants use of the terms "forgery" and "false declaration" are misleading and false. As discussed herein, Professor Halal's signature was signed with his explicit authorization and instruction as though he had actually signed the declaration. Exhibit 2, Dec. Prof. Halal ¶¶ 5-7; Exhibit 1, Dec. Dr. Ann Wang ¶¶ 10-12. Setting this aside, Virginia Innovation does not agree that Professor Halal's authorized signature is "per se material," or otherwise material to patentability. This is harmless misunderstanding of PTO procedure that Virginia Innovation is in the process of attempting to correct. Since Defendants filed their Thirteenth Counterclaim six days before the dispositive motion deadline Virginia Innovation was denied the opportunity to retain an expert to address the materiality of Professor Halal's authorized signature. To the extent the Court is inclined to deny Virginia Innovation's motion, Virginia Innovation respectfully requests leave to retain an expert and submit a supplemental brief on these issues.

MPEP § 609.02. This section goes on to state:

The examiner will consider information which has been considered by the Office in a parent application when examining: (A) a continuation application filed under 37 CFR 1.53(b), (B) a divisional application filed under 37 CFR 1.53(b), or (C) a continuation-in-part application filed under 37 CFR 1.53(b). A listing of the information need not be resubmitted in the continuing application unless the applicant desired the information to be printed on the patent.

MPEP § 609.02(A)(2). In view of § 609, the Federal Circuit has stated that it cannot be inequitable conduct for an applicant not to resubmit, in a continuing application, the information that was cited or submitted in the parent application. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 547 (Fed. Cir. 1998); *Transmatic, Inc. v. Gulton Industries, Inc.*, 849 F.Supp. 526, 542 (E.D. Mich. 1994), *aff'd in pertinent part*, 53 F.3d 1270, 1275 (Fed. Cir. 1995). *See also eBay, Inc. v. IDT Corp.*, 2009 WL 2706395 \*2-3 (W.D. Ark. Aug. 24, 2009) (granting motion to dismiss inequitable conduct claim based on argument that art cited in parent application should have been cited in continuation application); *TM Patents v. IBM Corp.*, 121 F.Supp.2d 349, 371-72 (S.D.N.Y. Nov. 13, 2000) (granting motion for summary judgment of no inequitable conduct based on same); *Chamberlain Group, Inc. v. Lear Corp.*, 756 F.Supp.2d 938 (N.D. Ill. Nov. 24, 2010) (holding same); *Advanced Cardiovascular Systems, Inc. v. Medtronic Vascular, Inc.*, 485 F.Supp.2d 538, 546-47 (D.Del. Apr. 23, 2007) (holding same).

The second part of Defendants' inequitable conduct argument is based on the patentees' purported failure to disclose certain references during prosecution of the '733 and '398 patents that were cited during prosecution of the '341 application. Amended Counterclaims ¶¶ 83-109 [Doc. 131]. It is undisputed that the '492 patent, which issued from the '341 application, is the parent of the '733 and '398 patents. Exhibit 16, '733 patent; Exhibit 17, '398 patent; Exhibit 15 '492 patent. It is undisputed that all of the references Defendants rely on in support of their

argument were cited by the examiner during prosecution of the '492 patent. Amended Counterclaims ¶¶ 83-109 [Doc. 131]. It is further undisputed that these references were cited by the examiner in the '492 prosecution years before the '733 and '398 patents issued and before the PTO searched for prior art during prosecution of the '733 and '398 patents. Exhibit 20, Notice of References Cited (Feb. 21, 2008); Exhibit 21, Notice of References Cited (Mar. 24, 2009); Exhibit 38, '733 Notice of References Cited; Exhibit 39, '398 Notice of References Cited. See also Exhibit 15, '492 patent; Exhibit 16, '733 patent; Exhibit 17, '398 patent.

It is well established that the patentees were under no duty to disclose these references during prosecution of the '733 and '398 patents. As a result, summary judgment on the second part of Defendants' inequitable conduct claim is warranted.

### 2. To the Extent Disclosure Should Have Occurred, There is No Evidence of Intent to Deceive.

Setting aside that the MPEP did not require the patentees to disclose the references at issue, even if it is assumed the patentees should have disclosed these references, there is no evidence of intent to deceive the PTO. During prosecution of the '733 and '398 patents it was Dr. Ann Wang's understanding that there was no duty to disclose references in a continuation-in-part (i.e., the '733 and '398 patents) that were previously disclosed in a parent application (i.e., the '492 patent). Exhibit 1, Dec. Dr. Ann Wang ¶ 17. This is consistent with the MPEP on which the patentees were entitled to rely.

The only argument that can be gleaned from Defendants' Thirteenth Counterclaim is based on Dr. Ann Wang's notation next to claim 1 of Rakib stating "caution, important art." Amended Counterclaims ¶ 91 [Doc. 131]. However, Dr. Ann Wang testified that she does not remember when she wrote the words "caution, important art." Exhibit 8, Depo. Dr. Ann Wang 283:15-285:6; Exhibit 1, Dec. Dr. Ann Wang ¶¶ 19-20. She does not remember whether they

were written in connection with prosecuting any of the patents-in-suit, prosecuting a patent that is not in suit, or during the course of her other activities as an inventor at Virginia Innovation.

Id. This is not sufficient to support a finding of intent to deceive.

"In a case involving nondisclosure of information, clear and convincing evidence must show that the applicant *made a deliberate decision* to withhold *a known* material reference."

Therasense, 649 F.3d at 1290 (emphasis in original). Defendants cannot establish this. To meet their burden of clear and convincing evidence, Defendants must establish that specific intent to deceive the PTO is the "single most reasonable inference to be drawn from the evidence." *Id.* If there are "multiple reasonable inferences that may be drawn, intent to deceive cannot be found."

Id. At a minimum, multiple reasonable inferences may be drawn (e.g., the patentees did not disclose the references because, in accord with the MPEP, they believed they had no duty to disclose them). As a result, summary judgment in favor of Virginia Innovation is appropriate.

### 3. The Art Relied on by Defendants Does Not Meet the "But-For" Materiality Requirement.

Further setting aside that the MPEP did not require the patentees to disclose the references at issue, and setting aside the fact that Defendants cannot establish intent to deceive by clear and convincing evidence, Defendants also cannot meet the "but-for" materiality requirement for inequitable conduct. In order to meet their burden, Defendants must establish that the PTO would not have allowed a claim in the '733 or '398 patents had the PTO been aware of the undisclosed prior art. *Therasense*, 649 F.3d at 1291.

Defendants' Thirteenth Counterclaim focuses on Rakib. *See* Amended Counterclaims ¶¶ 83-109. Throughout the prosecution of the '492 patent, Rakib was cited by the examiner because it disclosed a personal digital assistant, an analog display, and a television set that implemented one or more of the following standards: NTSC, PAL or SECAM. Exhibit 23, Feb.

27, 2008 Office Action; Exhibit 25, Sept. 17, 2008 Office Action, VIS1581-82; Exhibit 27, March 27, 2009 Office Action, VIS001512-13; Exhibit 29, Jan. 4, 2010 Office Action, VIS001459-61; Exhibit 31, July 20, 2010 Office Action, VIS001390-92. None of the claims of the '733 or '398 patents require a personal digital assistant, an analog display, and a television set that implemented one or more of the following standards: NTSC, PAL or SECAM. Exhibit 16, '733 patent; Exhibit 17, '398 patent.

All of the claims of the '733 and '398 patents contain a limitation requiring conversion of the multimedia content item. *See e.g.*, Exhibit 16, '733 patent; Exhibit 17, '398 patent. For example, claim 15 of the '398 patent contains the limitation:

... converting the multimedia content item for reproduction according to a determined signal format of the destination device.

Exhibit 17, 398 patent, claim 15. During prosecution of the '492 patent, the patentees overcame five rejections based on Rakib pursuant to 35 U.S.C. § 103 on the basis that Rakib did not disclose the "conversion" limitation. Exhibit 24, Response Feb. 27, 2008 Office Action, VIS001608; Exhibit 26, Response Sept. 18, 2008 Office Action, VIS001569; Exhibit 28, Mar. 27, 2009 Office Action, VIS001498; Exhibit 30, Response Jan. 4, 2010 Office Action, VIS001444; Exhibit 32, Response July 20, 2010 Office Action, VIS001376. The patentees' stated:

There is no disclosure of any kind in Rakib of receiving and converting a video signal for display on an alternative display terminal, even in a general sense.

Id.

On August 5, 2013, Defendants' expert, Dr. Almeroth, submitted his expert report on invalidity. Exhibit 33, Almeroth Report. Dr. Almeroth's report does not identify where the "conversion" limitation is present in Rakib. Exhibit 33, Almeroth Report; Exhibit 34, Excerpt

from Exhibit to Almeroth Report comparing Rakib to claim 15 of '398 patent. Further, Dr. Almeroth's report did not contain any opinions concerning the '733 patent in relation to Rakib.

Id. To the extent Rakib met the "but-for" materiality requirement, one would expect for Dr. Almeroth to be able to identify the "conversion" limitation in Rakib as well as to opine on the Rakib in relation to the '733 patent – he could not and did not. Defendants cannot establish that the PTO would not have allowed a claim in the '733 or '398 patent had the PTO been aware of any of the references Defendants contend should have been disclosed. As a result, Defendants cannot meet their burden and Virginia Innovation's motion for summary judgment should be granted.

#### VI. CONCLUSION

Six days before the dispositive motion deadline, in violation of Fed. R. Civ. P. 15,

Defendants filed their Thirteenth Counterclaim without notifying Virginia Innovation, without obtaining consent, and without requesting leave of Court. Defendants' counterclaim should therefore be struck and any request for leave to amend should be denied.

In the alternative, Virginia Innovation should be granted summary judgment on Defendants' Thirteenth Counterclaim. Defendants have not, and cannot, identify any evidence to support a finding of intent to deceive the PTO. In addition, Defendants have not, and cannot, demonstrate that the references they rely on meet the "but-for" materiality requirement. As a result, summary judgment is warranted.

<sup>&</sup>lt;sup>12</sup> The only other reference identified with specificity in Defendants' Thirteenth Counterclaim is Dawson. Amended Counterclaims ¶ 89 [Doc. 131]. Dr. Almeroth offered no opinions regarding Dawson. Further, given that Defendants bear the burden of proof on inequitable conduct, any opinion testimony on which they intend to rely in support of their inequitable conduct counterclaim was required to be disclosed on August 5, 2013. Scheduling Order [Doc. 56]. As a result, Defendants will not have any expert opinion testimony on Dawson or the issue of inequitable conduct.

DATED: August 13, 2013

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### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on all Defendants through their respective counsel of record via the Court's CM/ECF system on August 13, 2013.

/s/ W. Ryan Snow W. Ryan Snow

## EXHIBIT 1

### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVIRGINIA INNOVATIONION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff.

Case No. 2:12-CV-00548-MSD-DEM

v.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

DECLARATION OF TIEHONG (ANN) WANG IN SUPPORT OF PLAINTIFF VIRGINIA INNOVATION SCIENCES, INC.'S MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

- I, Tiehong (Ann) Wang, herby, declare as follows:
- 1. I am over the age of eighteen (18) and am personally familiar with and have personal knowledge of the facts stated in this declaration. If called as a witness, I could and would testify competently to each fact stated herein.
- 2. This declaration is made in support of Virginia Innovation Sciences, Inc.'s Motion to Strike Defendants' Thirteenth Counterclaim or, in the alternative, Motion for Summary Judgment on Defendants' Thirteenth Counterclaim related to Inequitable Conduct.
- 3. I am a named inventor of United States Patents No. 7,899,492 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,050,711 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,145,268 entitled

"Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,224,381 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 7,957,733 entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals", and 8,135,398 entitled "Methods and Apparatus for Multimedia Communications with Different User Terminals". (hereinafter referred to as "the asserted patents").

- 4. I was personally involved in creation of the patented inventions disclosed in the asserted patents and prosecution of those patents.
- I am the chief executive officer of Virginia Innovation Sciences, Inc. ("Virginia Innovation").
  - 6. Virginia Innovation is the current owner of the asserted patents.
- 7. On June 24, 2005 I filed U.S. Patent Application No. 11/165,341 ("the '341 application") *pro se*, without the assistance of counsel.
- 8. I am not an attorney and at the time of the filing of the '341 patent application I had no formal legal training.
- 9. At the time I filed the '341 application, I was not aware that original signatures were required on the declaration of inventorship.
- 10. I signed the '341 application on behalf of Professor William Halal pursuant to Professor Halal's instruction, request, and authorization and believed it to be an effective signature on Prof. Halal's behalf.
- 11. I did this as a courtesy to Professor Halal after he told me he would not want to drive in the Washington, D.C. traffic to Virginia to meet me to sign the declaration and instructed me to sign for him.

12. In signing Professor Halal's signature on the declaration, at no time did I intend to deceive or mislead the United States Patent and Trademark Office ("PTO").

13. After Professor Halal was deposed in this action, I had a chance to review his testimony regarding the signature, which refreshed my recollection that I signed Professor Halal's name to the declaration pursuant to his instruction and authorization.

14. Virginia Innovation has retained prosecution counsel to determine if Prof. Halal's authorized signature is a technical error to be fixed with a supplemental declaration.

15. Professor Halal was correctly named as a co-inventor on the '341 application, which issued as the '492 patent.

16. Professor Halal contributed to at least one claim in the '492 patent.

17. During the prosecution of the '733 and '398 patents it was my understanding that there was no duty to disclose references in the '733 and '398 patents that were previously disclosed in the '492 patent.

18. I did not intend to deceive the PTO by not disclosing during prosecution of the '733 and '398 patents the references cited during prosecution of the '492 patent.

19. I do not remember when I wrote the words "caution, important art".

20. Further, I do not remember if I wrote those words in connection with prosecuting a patent-in-suit, prosecuting a patent not in suit, or during the course of my other activities as an inventor at Virginia Innovation Sciences, Inc.

I declare under penalty of perjury that the foregoing is true and accurate.

DATED: August 13, 2013

Respectfully submitted,

Tiehong (Ann) Wang

## EXHIBIT 2

### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

Case No. 2:12-CV-00548-MSD-DEM

V.

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

DECLARATION OF PROFESSOR WILLIAM E. HALAL IN SUPPORT OF PLAINTIFF VIRGINIA INNOVATION SCIENCES, INC.'S MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

- I, Professor William E. Halal, herby, declare as follows:
- 1. I am over the age of eighteen (18) and am personally familiar with and have personal knowledge of the facts stated in this declaration. If called as a witness, I could and would testify competently to each fact stated herein.
- 2. This declaration is made in support of Virginia Innovation Sciences, Inc.'s

  Motion to Strike Defendants' Thirteenth Counterclaim or, in the alternative, Motion for

  Summary Judgment on Defendants' Thirteenth Counterclaim related to Inequitable Conduct.
- 3. I am a named inventor of United States Patents No. 7,899,492 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,050,711 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,145,268 entitled

"Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 8,224,381 entitled "Methods, Systems and Apparatus for Displaying the Multimedia Information from Wireless Communication Networks", 7,957,733 entitled "Method and Apparatus for Multimedia Communications with Different User Terminals", and 8,135,398 entitled "Method and Apparatus for Multimedia Communications with Different User Terminals." (hereinafter referred to as "the asserted patents").

- 4. I was personally involved in the creation of the patented inventions disclosed in the asserted patents and the prosecution of those patents.
- 5. I requested that Ann Wang sign the '341 application on my behalf and authorized her to do so. I believed this to be acceptable.
- 6. Ann did this as a courtesy to me so I would not have to drive in the Washington, D.C. traffic to Virginia to meet her to sign the declaration.
- 7. In authorizing Ann Wang to sign my signature on the declaration, at no time did I intend to deceive or mislead the United States Patent and Trademark Office ("PTO").
- 8. I was correctly named as a co-inventor on the '341 application, which issued as the '492 patent.
  - 9. I contributed to at least one claim in the '492 patent.
- 10. During the prosecution of the '492 patent, I personally signed the Power of Attorney form appointing the law firm Collier Shannon Scott as prosecution counsel.
- During the prosecution of the '492 patent, I personally signed a Revocation of Power of Attorney and New Power of Attorney appointing the law firm Rader, Fishman & Grauer PLLC as prosecution counsel.

12. I personally signed the declaration of inventorship submitted in conjunction with U.S. Patent Application No. 11/802,418, which was issued as the '733 patent, and U.S. Patent Application No. 13/067,079, which was issued as the '398 patent.

I declare under penalty of perjury that the foregoing is true and accurate.

DATED: August 13, 2013

Respectfully submitted

Professor William E. Halal

## EXHIBIT 7

PYO/S8/01 (04-05) Approved for use through 07/31/2006, OMB 0551-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid DMB control number Attorney Docket Number **DECLARATION FOR UTILITY OR** Tiejun (Rondd) Wars First Named Inventor DESIGN COMPLETE IF KNOWN PATENT APPLICATION (37 CFR 1.63) Application Number Filing Date Declaration Declaration Submitted after Initial Submitted Art Unit With Initial Filing (surcharge Filing (37 CFR 1.16 (e)) **Examiner Name** required) I hereby declare that: Each Inventor's residence, mailing address, and citizenship are as stated below next to their name. I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled: Tiejun (Rondd) Wang

Tiehong (Ann) Wang

William E. Halal Ximing Wang

The specification of which Mobile Terminal Signal Conversion for External Display is attached hereto as United States Application Number or PCT International was filed on (MM/DD/YYYY) (if applicable). and was amended on (MM/DD/YYYY) Application Number I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed. Certified Copy Attached? Prior Foreign Application Foreign Filing Date Priority Country Not Claimed YES (MINIDOMYYY) Number(s) Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]
This collection of information is required by 35 U.S.C. 115 and 37 GFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 GFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form antifor suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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VIS-001820

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Under the Paperwork Reduction Act of 1995, no persons are required to respond  DECLARATION — Utility or Dec	
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I hereby declare that all statements made herein of my own knowled and belief are believed to be true; and further that these statements and the like so made are punishable by fine or impriso false statements may jeopardize the validity of the application or an	riedge are true and that all statements made on information terments were made with the knowledge that willful false comment, or both, under 18 U.S.C. 1001 and that such willful
	etition has been filed for this unsigned inventor Family Name or Surname
Given Name (first and middle [if any]) Tiejun (Ronald)	Wang
Inventor's Signature	06/24/2005
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Mailing Address 9162 Regents Rd, Ap	ot I
City La Jolla State CA	Zip 92037 Country USA
NAME OF SECOND INVENTOR:	A petition has been filed for this unsigned inventor Family Name or Surname
Given Name (first and middle [if any]) William E.	Halal
Inventor's Signature William Halal	Date 06/24/2005
Residence: City State  Waskington DC	Country Citizenship USA USA
Mailing Address  3342 Maud St N	·W
City State Washington D.C.	Zip Country 20016 USA
The state of the s	supplemental sheet/s) PTO/SR/02A or 02LR attached hereto.

[Page 2 of 2]

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Date: 06/10/2005

VIS-001822

# EXHIBIT 8

Virginia Innovation Sciences, Inc. v. Samsung Electronics Co., Ltd., etc.

Dr. Tiehong Wang - Vol. 1 March 27, 2013

	sung Electronics Co., Ltd., etc.				
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5	VIRGINIA INNOVATION SCIENCES, INC. )	5	by it	a designee DR. TIEHONG WANG	
6	Plaintiff,	6	Exami	nation By Mr. Williamson	7
7	Y. (	7		_	
8	SAMSUNG ELECTRONICS CO., LTD; ) SAMSUNG ELECTRONICS AMERICA, INC; )	8			
9	SAMSUNG TELECOMMUNICATIONS AMERICA.)	9		EXHIBITS	
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1 2 3 4 5 6 7 8 9 10 11	Appearances:  INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com	1 2 3 4 5 6 7 8 9 10 11	7 8 9 10	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift	PAGE 37 44 55 63
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1 2 3 4 5 6 7 8 9 10 11 12 13 14	INNOVALAW, P.C.  By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@comm.com com counsel for the Defendants  Also Present:	1 2 3 4 5 6 7 8 9 10 11 12 13 14	7 8 9 10	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc.	27 24 44 44 55 63 63 44 66 66
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present: Jason Levin, Videographer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	7 8 9 10 11 12 13 14 15 16	EXHIBITS (Continued)  DESCRIPTION  Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting  Tax Return Documents  Resume  Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting  Deed of Gift  Articles of Incorporation of SellerBid, Inc.  Handwritten Notes  Handwritten Notes  Handwritten Notes  Figure	9 PAGE 377 379 444 555 633 63 66 66 66 66 66 66 66 66 66 66 66
1 2 3 4 5 6 7 8 9 10 11 2 13 14 15 16 17 18	INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present: Jason Levin, Videographer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	7 8 9 10 11 12 13 14 15 16 17	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application	PAGE 373 444 555 63 63 100 111 122 122 13
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1 2 3 4 5 6 7 8 9	INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present: Jason Levin, Videographer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	7 8 9 10 11 12 13 14 15 16 17 18	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application Utility Patent Application	PAGE 37 37 44 44 55 63 44 65 125 127 136 166 163
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present: Jason Levin, Videographer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	7 8 9 10 11 12 13 14 15 16 17 18	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application Utility Patent Application Email dated July 8, 2005 from Ronald Wang to Ronald Wang with attachment Patent 8,050,711	PAGE 37 44 55 63 47 68 108 125 127 136 166 163
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429 bwilliamson@omm.com cwestin@omm.com Counsel for the Defendants  Also Present: Jason Levin, Videographer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	7 8 9 10 11 12 13 14 15 16 17 18 19	EXHIBITS (Continued) DESCRIPTION Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Tax Return Documents Resume Unanimous Written Consent of the Shareholders of SellerBird, Inc. In Lieu of a Formal Special Meeting Deed of Gift Articles of Incorporation of SellerBid, Inc. Handwritten Notes Handwritten Notes Handwritten Notes Figure Provisional Patent Application Utility Patent Application Email dated July 8, 2005 from Ronald Wang to Ronald Wang with attachment	37 u 44 55 63

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ZAHN COURT REPORTING NORFOLK (757) 627-6554 RICHMOND (804) 788-8899 (1) Pages 1 - 4

Virginia Innovation Sciences, Inc. v. Samsung Electronics Co., Ltd., etc.

Dr. Tiehong Wang - Vol. 1 March 27, 2013

San	isung Electronics Co., Ltd., etc.		March 27, 2015
1	Page 5		Page 7
4		1	reporter please swear in the witness.
1 2	EXHIBITS (Continued)	2	THE COURT REPORTER: Please raise your right
3		3	hand.
4	400	4	DR. TIEHONG WANG was sworn and deposed
5	23 Assignment 183 24 Power of Attorney 186	5	on behalf of the Defendants as follows:
6	25 Amendment Transmittal Letter 189	6	
7	26 Patent 5,880,732 192	7	EXAMINATION
8	27 Patent Application 2002/0102998 193		BY MR. WILLIAMSON:
9	28 Notice of Allowance and Fee(s) Due 199	9	Q. Good morning. Can you please say and then
10	29 Utility Patent Application Transmittal 204	10	spell your name for the record.
		11	The state of the s
11	I I	12	Q. And can you spell that, please?
12	to Tiejun Wang	13	A. T-i-e-h-o-n-g W-a-n-g.
13	31 Email dated September 11, 2005 from Ronald 209 Wang to Ann Wang with attachment	14	Q. Do you also sometimes go by the given name
14		15	Ann?
15		16	A. Correct.
16	www. a sa would be a great of the same	17	Q. Okay. Dr. Wang, my name is Brett Williamson,
17	34 Provisional Application filed	18	and I'm an attorney for Samsung, the three Samsung
18	March 31, 2006	19	entities that are defendants in the lawsuit that
19		20	Virginia Innovation Sciences has filed.
20		21	We met earlier this morning, and I'm going to
21		22	be asking you questions today under oath.
22		23	Do you understand that by giving that oath,
23		24	that you're required to tell the truth in response to
24		25	all of my questions?
25			til of my downs.
	Page 6		Page 8
	·	and the same	, we will
1	(Defendants' Amended Notice of Fed. R.	1	
2	Civ. P. 30(b)(6) Deposition of Plaintiff Virginia	2	
3	Innovation Sciences, Inc. was marked Deposition Exhibit	3	
4	Number 1.)	4	•
5	THE VIDEOGRAPHER: We are now on record.	5	-
6	The date today is March 27th, 2013 and the	6	
7	time is 10:03 a.m.	7	* *************************************
8	My name is Jason Levin, video specialist	8	
9	representing Zahn Court Reporting, 208 East Plume	9	** *** *
10	Street, Norfolk, Virginia.	10	
11	This is the videotaped deposition of the	11	
12	30(b)(6) witness for Virginia Innovation Sciences,	12	
13	Incorporated in the matter of Virginia Innovation	13	
1.4	Sciences, Incorporated versus Samsung, Civil Action	14	*
15	Number 2:12-CV-00548-MSD-DEM.	15	
16	The court reporter is Marianne Holmes.	16	~ · · · · · · · · · · · · · · · · · · ·
17		17	* * * * * * * * * * * * * * * * * * * *
18		18	
19		19	
20		20	* *
21		21	
22		22	
23		23	
24	for Virginia Innovation Sciences.	24	
25	THE VIDEOGRAPHER: And would the court	25	best to let me finish my question before you give your
-		1	

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Virginia Innovation Sciences, Inc. v. Samsung Electronics Co., Ltd., etc.

Dr. Tiehong Wang - Vol. 1 March 27, 2013

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A. And it also means that in the nonprovisional
1
   application, that MTSCM, this component can jointly
   achieve these functions that I just - we just read, 3.1
3
   through 3.4, with the other components in the system
4
   such as the mobile terminal.
5
     O. Okay, I understand your testimony. I
6
   appreciate that.
7
```

Looking back at the nonprovisional application, Exhibit 18.

At page 3549 through 3950, there are declarations by the inventors. Do you see those pages? It's page 3549 and 3550. 13

MR. WILLIAMSON: 3550.

THE COURT REPORTER: You said 39.

MR. WILLIAMSON: I did? All right. 3549 through 3550.

BY MR. WILLIAMSON: 17

- Q. Do you have those pages before you, Dr. Wang? 18
- A. Yes, sir. 19

8

Q

10

11

12

14

15

16

- Q. Okay. Do you see that those -- that there's a 20 declaration page and then a continuation page with a 21 name of third inventor and name of fourth inventor? 22
- 23 A. Yes, sir.
- Q. Did you circulate the declaration to the other 24 inventors, your brother Ronald, Dr. Halal and your 25

Q. Okay. Or you weren't?

Did you present Exhibit 21 to Dr. Halal for 2 3 his signature?

MR. GROCHOCINSKI: Well --

THE WITNESS: I don't think so. I think my attorney sent it to him.

BY MR. WILLIAMSON:

O. Okay. I'm sorry. My question may have been unclear.

I asked if you were involved at all in obtaining Dr. Halal's signature on this declaration, Exhibit 21.

- A. Yes.
- Q. You were involved. How were you involved?
- A. I think I was, according to what I recall, I think that I was copied, I was copied by my attorney and by Professor Halal for their communication related with this signature.
- O. If you will look at his signature on that page, page 3 of Exhibit 21 and then also look at what purports to be his signature on page 3549 in the nonprovisional application declaration, Exhibit 18, would you agree with me that those are different signatures?

Page 178

Page 180

- father Ximing Wang?
  - A. You mean for their signature?
- Q. Yes. 3

2

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8

9

13

14

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17

18

19

20

21

25

- A. Yes, sir. 4
- O. Okay. Did you do it by mail or do it in 5 6 person?

Can you explain to me how you obtained the signatures of the co-inventors on the declaration?

- A. I don't remember.
- Q. Okay. Do you remember how Mr. Halal's 10 signature was obtained? 11
- A. Sorry, I don't. 12

(Declaration of William E. Halal was marked Deposition Exhibit Number 21.) BY MR. WILLIAMSON:

O. We've marked as Exhibit 21 a copy of the declaration of William Halal in support of VIS' response in opposition to Samsung's motion to transfer venue of this case to the District of New Jersey.

And on the third page of that declaration is a signature that purports to be Dr. Halal's signature.

Did you -- were you involved at all in 22 obtaining Dr. Halal's signature on this declaration, 23 Exhibit 21? 24

A. Yes, sir.

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MR. GROCHOCINSKI: Objection. Calls for 1 speculation, lack of foundation. 2

- BY MR. WILLIAMSON: 3
  - Q. You can go ahead and answer.
- A. I'm sorry, what's your question? 5
- Q. Would you agree with me that those look like 6 different signatures? 7
  - A. No, I don't.
- O. You think that those are those signatures 9
- are look like they are written by the same person? 10
- A. I believe those signatures was signed by the 11 same person. 12
  - Q. Okay. Do you have any understanding of why, for instance, in Exhibit 18 on page 3549 --
    - A. 18?
- Yes. 16 Q.
- -- it's missing the middle initial E from the signature? 18
- A. No, I don't. 19
- O. But your testimony here today is that you 20 understand that Dr. Halal signed personally both 21 Exhibit 18 on the declaration page and Exhibit 21, to 22 the best of your knowledge?
  - A. Yes, sir.
- Q. Staying on Exhibit 18 which is the 25

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#### March 27, 2013 Samsung Electronics Co., Ltd., etc. Page 183 Page 181 and we're going to be at that point, too. nonprovisional application, there are signatures by four 1 Why don't we go ahead and take our break now, inventors: yourself, Ronald, Dr. Halal and your father 2 2 and then we'll try to continue and then finish Ximing Wang. 3 3 through six. Why was your cousin Tiecheng Wang not listed 4 4 as an inventor on the nonprovisional application? 5 THE VIDEOGRAPHER: We're going off record at 5 A. According to U.S. patent law, he shouldn't be 6 4:13 p.m. 6 (A recess was taken from 4:13 p.m. until named as a co-inventor of this invention. 7 7 4:29 p.m.) Q. What happened between the time you filed the 8 8 (Assignment was marked Deposition Exhibit 9 non- -- the provisional application and the 9 Number 22.) nonprovisional application that led you to believe that 10 10 (Assignment was marked Deposition Exhibit your cousin was not an inventor on the inventions in the 11 11 Number 23.) nonprovisional application? 12 12 THE VIDEOGRAPHER: We're going back on record MR. GROCHOCINSKI: And I'm just going to 13 13 at 4:29 p.m. instruct you not to disclose any communications you 14 14 This is the start of disk number 5 in the had with your lawyer. 15 15 30(b)(6) deposition of VIS. But subject to that restriction, you can 16 16 BY MR. WILLIAMSON: answer the question. 17 17 Q. Dr. Wang, you understand you're still under THE WITNESS: I talked with my attorney. 18 18 oath? 19 BY MR. WILLIAMSON: 19 A. Yes, sir. O. Okay. So don't give me any of the substance 20 20 MR. WILLIAMSON: Tim, I marked 22 and 23. of that. But that was the, that was the answer to my 21 21 MR. GROCHOCINSKI: Got it. question that I asked, so I don't want any further 22 22 BY MR. WILLIAMSON: 23 23 elaboration. O. Dr. Wang, I've asked the court reporter to Were there any -- is there any subject matter 24 24 place in front of you here what we've now premarked as 25 that you believe was included in the non- -- in the 25 Page 184 Exhibits 22 and 23 which are two assignment documents. provisional application relating to the inventive 1 contribution of Tiecheng Wang that was later not Let me ask you first about Exhibit 22, VIS 2 1311 through 1312, which on the second page looks like included in the nonprovisional application? 3 3 it was executed on January 7th, 2011 and January 8th, A. I'm sorry? 4 2011 for the assignment by each of the inventors under O. Yes. 5 the '341 application which we've looked at as the Was there any inventive contribution by your 6 nonprovisional application from which the first four cousin Tiecheng Wang that's disclosed in the provisional 7 patents in suit claim priority. application that was not later included in the 8 Do you recognize that document? nonprovisional application? 9 9 A. I'm not aware of any. 10 A. Yes, sir. 10 Q. Okay. And did you sign Exhibit 22 on or about O. Has VIS ever obtained an assignment or a 11 11 quitclaim of any rights from Tiecheng Wang? January 7th, 2011? 12 12 A. 1312? You mean page 1312? A. I'm not aware of any. 13 13 Q. Yes, page 1312. O. Did you ever inform your cousin that he was 14 14 A. Yes, sir. not being listed as an inventor on the nonprovisional 15 15 Q. Okay. Have there been any further assignments patent application? 16 16 of rights to the application and subsequent patents as A. I don't recall that I talked to him about it. 17 17 set forth on Exhibit 22 since the assignment by the MR. GROCHOCINSKI: Brett, would you mind if we 18 18 inventors to VIS? got the cords for this? 19 19 A. For this patent? MR. WILLIAMSON: Oh, yeah, let's do that right 20 20

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now. Let's do it.

I'm not trying to disrupt you.

THE VIDEOGRAPHER: Go off record?

MR. GROCHOCINSKI: Whatever you want to do.

MR. WILLIAMSON: No, no, and it's a good --

A. No, sir.

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O. Yes, for this application which relates to the

nonprovisional application that we've looked at and the

patents that issued from that application.

Q. There's been no other assignments?

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1 2 3 4 5 6 7 8 9	Appearances:  INNOVALAW, P.C. By: TIMOTHY E. GROCHOCINSKI, ESQUIRE 1900 Ravinia Place Orland Park, Illinois 60462 teg@innovalaw.com Counsel for the Plaintiff  O'MELVENY & MYERS LLP By: BRETT J. WILLIAMSON, ESQUIRE CAMERON WESTIN, ESQUIRE 610 Newport Center Drive, 17th Floor Newport Beach, California 92660-6429	2 3 4 5 6 7 8 9 10	44 45 46	E X H I B I T S (Continued)  DESCRIPTION  Document titled "Samsung Electronics and the Chinese Threat"  2011 Tax Return Filing Instructions with attached 2011 Tax Return  Complaint  Reissued Patent US RE40,753 E  Joint Motion for Entry of an Order	PAGE 325 328 339 341 343
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March 28, 2013 Samsung Electronics Co., Ltd., etc. Page 282 Page 280 patent. explain why the language added by VIS in the proposed 1 The third line down lists U.S. Patent amendment didn't sufficiently distinguish Cohen? 2 Number 6,970,127 to Rakib. Do you see that? 3 I'm sorry? 3 Yes, sir. Yes. 4 Q. 4 Do you remember that reference, the Rakib Was there ever -- do you recall any 5 Q. 5 reference? statements by the examiner either in your personal 6 6 7 No, sir. interviews as part of the prosecution of the 7 MR. WILLIAMSON: 38 now, right? nonprovisional application or in any telephonic 8 8 THE COURT REPORTER: Yes. conversations as to why the amendment offered by VIS in 9 0 MR. WILLIAMSON: Yes, Exhibit 38. the response to Office Action that we looked at in 10 10 (Patent 6,970,127 was marked Deposition Exhibit 36 was not sufficient to distinguish Cohen over 11 11 Exhibit Number 38.) VIS' invention? 12 12 BY MR. WILLIAMSON: A. I don't remember. 13 13 The court reporter has marked as Do you have any idea where the language 14 14 Q. Exhibit 38 a copy of the Rakib patent U.S. 6,970,127 that the examiner added in the examiner's amendment as 15 15 that's listed on the face of the '492 patent. part of the notice of allowance in Exhibit 37 came from? 16 16 And this copy of Rakib was produced by I think it's from the specification of 17 17 VIS in response to Samsung's request for production at 18 the patent application. 18 document control numbers 14 through 41. 19 What leads you to think that? 19 Let me first ask you about 14, page 14 Because it's my knowledge that every 20 20 which is the first page of the Rakib patent. claim in the issued patent or allowed claims must be 21 21 Do you have that in front of you, fully supported by the specification of the patent 22 22 Dr. Wang? 23 application. 23 Yes, sir. 24 A. I understand your answer. O. 24 At the last part of the abstract, the Q. My question was actually slightly 25 25 Page 283 Page 281 last approximately five or six lines, there's a line different than it was. written in the right-hand margin, and I believe the word Do you know where this claim language 2 2 "core," do you see that? came from, this specific claim language that was added 3 3 Yes, sir. A. 4 by the examiner? 4 Is that your handwriting? That I need to read the specification. O. 5 A. 5 A. Yes, sir. Okay. If I could ask you to then look б Q. 6 Okay. When did you write the word "core" back at another exhibit from yesterday, it's Exhibit 32, 7 7 on this copy of the Rakib patent? the issued '492 patent. 8 8 Sorry, sir, I don't recall. So can I, can I close everything? 9 Α. A. 9 Okay. Do you remember why you wrote the I think so, yes. If we need to go back 10 Q. 10 word "core" in the right-hand margin of the face page of to that pile, I will -- I'll let you know. 11 11 12 the Rakib patent? At this point, there's no order in this 12 A. My best recollection would be I thought stack. It may take me -- it take us a little bit longer 13 13 it is the major idea of this patent. 1.4 to find --14 Okay. If you would then turn in We'll blame Mr. Grochocinski for that. 15 Q. 15 Exhibit 38 to page 40, VIS 40, which is -- contains MR. GROCHOCINSKI: That's right. 16 16 column 34 of the Rakib patent, and do you see a 17 There. 17 bracketed handwritten notation in the right-hand column THE WITNESS: Thank you. 18 18 next to claim 1 of the Rakib patent and then there's BY MR. WILLIAMSON: 19 19 three words written in the margin "caution important Do you have Exhibit 32 in front of you? 20 Q. 20 art"? Do you see that? 21 Yes, sir. A. 21

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Q.

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Let me ask you to look at the second page

of Exhibit 32 which is the continuation of the face page

where there's a list, a continued listing of U.S. patent

documents that were cited in the prosecution of the

Yes, sir.

I think so, sir.

Okay. Did you write those words?

Okay. Do you remember when you wrote

A.

Q.

A.

Q.

Virginia Innovation Sciences, Inc. v. Samsung Electronics Co., Ltd., etc.

Dr. Tiehong Wang - Vol. 2 March 28, 2013

Page 286 Page 284 with, did you believe that Rakib was related to the those words? 1 inventions that you and your co-inventors were seeking 2 A. No, sir. patents on and that issued as the six patents asserted Do you have any recollection at all 3 3 against Samsung in this case? whether it occurred during the prosecution of any of the 4 Sir, could you repeat your question? patents in suit being asserted against Samsung? 5 5 Q. Sure. 6 I'm sorry? 6 Did you believe when you gave a copy of Do you have any recollection at all of 7 7 the Rakib patent to your patent prosecution attorney, when you would have written that down, whether it was 8 that the Rakib reference was related to the inventions during the prosecution of the patents in suit against 9 9 that you and your co-inventors were seeking patents on Samsung, that is, before they were issued? 10 10 as evidenced by the six patents being asserted against A. No. sir. 11 11 Samsung in this case? Q. What's the most recent it could have been 12 12 I give this art as soon as I realized that you wrote those words down? 13 13 this art to our patent prosecutor --I'm not sure, sir. 14 14 Yeah. Okay. So you don't have any 15 Q. 15 Q. -- is to let him decide what to do with 16 recollection? 16 this art if the content is related enough to the patent None for me to make certain. 17 17 application. And what did you mean by "caution 18 18 Q. But you made some determination that it O. important art"? 19 19 was possible that the Rakib patent was related to the My best guess would be at that moment 20 20 patent applications, correct? where I wrote it, where I read it, I think that's 21 21 Correct. A. 22 22 important art. You didn't give every single article that Q. Do you recall whether it was the 23 Q. 23 you read or patent that you came across while the patent applicant that disclosed the Rakib patent to the 24 24 applications were being prosecuted to your patent Patent Office or whether it was a reference that was 25 Page 287 Page 285 located and cited for the first time by the examiner? prosecuting attorney, correct? 1 That's correct. I believe that as soon as I read this 2 2 Do you know whether Mr. Tobin disclosed art, I give it to my prosecutor. 3 3 the Rakib patent to the Patent Office? Okay. Why did you do that? 4 Q. 4 That I need to look at the prosecution A. Because he was responsible for 5 5 6 history. communicating with the Patent Office. 6 Okay. But without looking at the Did you believe that Rakib was material 7 7 prosecution history, you don't recall one way or the to the inventions that you and your co-inventors were 8 8 9 other? claiming? 9 MR. GROCHOCINSKI: Objection. Calls for 10 Α. No, sir. 10 a legal conclusion. Q. Okay. 11 11 THE COURT REPORTER: 39. 12 BY MR. WILLIAMSON: 12 MR, WILLIAMSON: 39? Okay. 1.3 13

Q. I'm just asking for your belief when you gave it to your patent attorney.

A. I don't understand the meaning of "material" that you use in this question.

Sure.

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15

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You testified that you gave a copy of the Rakib patent to your patent prosecution counsel.

And I'm asking you whether in giving a copy of Rakib to your patent prosecution counsel, did you determine that it was material?

I understand that you don't understand what I mean by "material," so I just want to clarify.

Did you believe that -- well, to start

(Document titled "System for Display of Portable IT Devices" was marked Deposition Exhibit Number 39.)

16 BY MR. WILLIAMSON: 17

Dr. Wang, I've asked the court reporter to hand you what's been marked as Exhibit 39 -- oh, my bad - which is a document produced by VIS in response to Samsung's request for production marked page numbers 3814 through 3833. This is a document that was recently produced just before your deposition, so I'm taking it a little bit out of order from some of the discussions we had yesterday.

Min-U-Script®

14

15

18

19

20

21

23

24

# EXHIBIT 9

Page 1

#### WILLIAM HALAL

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

 $\nabla$  .

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,

Defendants.

X

VIDEOTAPED DEPOSITION OF

WILLIAM E. HALAL, Ph.D

Washington, D.C.

Wednesday, July 24, 2013

U.S. LEGAL SUPPORT (714) 486-0737

Γ			
1.	WILLIAM HALAL	1.	WILLIAM HALAL
2		2	EXHIBITS
3	Wednesday, July 24, 2013	3	EXHIBIT NUMBER DESCRIPTION PAGE NO.
4	9:00 a.m.	4	No. 135 - subpoena 23
5		5	No. 136 - subpoena 23
6		6	No. 137 - 00410237 32
7	Videotaped Deposition of WILLIAM E. HALAL, Ph.D,	7	No. 138 - TechCast printout 41
8	taken by Defendant at the offices of O'Melveny &	8	No. 139 - TechCast Expert Panel 50
9	Myers LLP, 1625 I Street Northwest, Washington, D.C.,	9	No. 140 - Overview for New Visitors 56
10	before Randi J. Garcia, Registered Professional	10	No. 141 - Smart TV and everything else 57
11	Reporter, and Notary Public in and for the District	11	No. 142 - Global Brain 50 Percent 61
12	of Columbia, beginning at approximately 9:00 a.m.	12	
13	when were present on behalf of the respective	13	
14	parties:	14	
15		15	(All exhibits attached to original transcript.)
16		16	
17		17	
18		18	
19		19	
20		20	
21		21	
22		22	
23		23	
24		24	
25		25	
l	Page 2		Page 4
	79/75 T T A 3 S T Y A T	1	WILLIAM HALAL
1 2	WILLIAM HALAL APPEARANCES:	2	THE VIDEOGRAPHER: Good morning. We are
3	For the Plaintiff:	3	on the record. This is the recorded video
4	TIMOTHY E. GROCHOCINSKI, ESQUIRE	4	deposition of Dr. William Halal in the matter
5	INNOVO LAW, PC 1900 Ravinia Place,	5	of Virginia Innovation Sciences Incorporated
D)	Orland Park, Illinois 60462	6	versus Samsung Electronics Company Limited,
6	708.675.1974	7	Samsung Electronics America Incorporated,
_	teg@innovalaw.com	8	Samsung Telecommunications America, LLC taken
7	For the Defendants:	9	on behalf of the Defendant Samsung Electronics
8	BRETT J. WILLIAMSON, ESQUIRE	10	Company Limited.
	O'Melveny & Myers LLP	11	This deposition is taking place at
9	610 Newport Center Drive	12	O'Melveny & Myers at 1625 I Street, Northwest
10	17th Floor Newport Beach, California 92660	13	Washington, D.C. on Wednesday, July 24, 2013
اً	949.823.7987	į.	at 9:00 a.m.
11	bwilliamson@omm.com	14 15	My name is Ellen Hebert. I am the
12	ALSO PRESENT:	16	videographer with U.S. Legal Support located
13	ALSO PRESENT: Ellen Hebert, Videographer	17	at 1230 Columbia Street, Suite 400, San Diego
15		ž.	California 92101.
	3 3 5 5 5 5" 37	18	
16	INDEX	10	Video and audio recording will be taking
16 17	WITNESS Page	19	Video and audio recording will be taking
16 17 18	WITNESS Page WILLIAM E. HALAL, Ph.D	20	place unless all counsel have agreed to go
16 17	WITNESS Page WILLIAM E. HALAL, Ph.D	20 21	place unless all counsel have agreed to go off the record.
16 17 18 19 20 21	WITNESS Page WILLIAM E. HALAL, Ph.D By Mr. Williamson 5	20 21 22	place unless all counsel have agreed to go off the record.  Would all present please identify
16 17 18 19 20 21	WITNESS Page WILLIAM E. HALAL, Ph.D By Mr. Williamson 5	20 21 22 23	place unless all counsel have agreed to go off the record.  Would all present please identify themselves beginning with the witness.
16 17 18 19 20 21 22 23	WITNESS Page WILLIAM E. HALAL, Ph.D By Mr. Williamson 5	20 21 22 23 24	place unless all counsel have agreed to go off the record.  Would all present please identify themselves beginning with the witness.  THE WITNESS: William Halal.
16 17 18 19 20 21	WITNESS Page WILLIAM E. HALAL, Ph.D By Mr. Williamson 5	20 21 22 23 24 25	place unless all counsel have agreed to go off the record.  Would all present please identify themselves beginning with the witness.

2 (Pages 2 to 5)

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### William Halal, Ph.D.

1	WILLIAM HALAL	1	WILLIAM HALAL
2	signature on the second page?	2	Q We talked about the utility patent
3	A Oh, yes. That is definitely my	3	application. If I could ask you to turn to 3549
4	signature. No question about it.	4	towards the end of the document.
5	MR. WILLIAMSON: Let's go off the record	5	A Okay.
6	for a second, because I am now searching for a	6	Q At the bottom of that there is a box, a
7	document.	7	name of second inventor. And it has your name.
8	THE VIDEOGRAPHER: Going off the record.	8	A Right.
9	The time is 11:20 a.m.	9	Q It also has the address of 3342 Maud
10	(Thereupon, a brief recess was taken.)	1.0	Street.
11	THE VIDEOGRAPHER: Going back on the	11	A Yes.
12	record. The time is 11:21 a.m.	12	Q Did you authorize Ann Wang to sign your
13	BY MR. WILLIAMSON:	13	name on that document?
14	Q Okay. I apologize if I asked you this	14	A Yes. We did that often, just for
15	question already, but I am going to show you	15	convenience. Rather than make a trip to her
16	Exhibit 21, which is a declaration of William	16	home in Virginia, I asked if she could sign for
17	Halal in support of Virginia Innovation	17	me.
18	Science's Response in Opposition to Samsung's	18	Q So you remember in particular in this
19	Motion to Transfer Venue to the District of New	19	instance telling her she was authorized to sign
20	Jersey.	20	your name to the document?
21	This is what I may have already asked	21	A Well, we did that often. I don't
22	you, whether you still reside at 3342 Maud	22	remember this particular document, but that
23	Street, Northwest in Washington, D.C.?	23	happened a lot.
24	A Yes.	24	Q But you will agree with me that that is
25	Q Do you have any plans to move from that	25	not your signature?
	Page 90		Page 9
1	WILLIAM HALAL	1	WILLIAM HALAL
2	address between now and the end of the calendar	2	A That is not my signature, no.
3	year?	3	Q Do you remember anything more in
4	A No.	4	particular relating to the signature on
5	Q Are you anticipating taking any long	5	Exhibit 18 in terms of giving authorization to
6	trips between now and the end of the calendar	6	Ms. Wang?
7	year?	7	A Do I remember anything in particular?
8	A Nothing more than a week.	8	Q I think you testified that it was
9	Q Turning to the last page of Exhibit 21.	9	customary practice in connection with these
10	Is that your signature?	10	patents for you to authorize her to sign your
11	A Yes.	11	name. But do you remember specifically doing so
12	Q Do you recall signing this document at	12	with respect to the document that is marked as
13	some point after the filing of this lawsuit?	13	Exhibit 18?
14	A Vaguely.	14	A I couldn't follow all of the
15	Q Did you understand that you were being	15	machinations of this thing. I just did what she
16	asked to provide information relating to the	16	told me to do, really. As I said, I left it to
17	convenience to you of the case staying in the	17	her and Ron.
18	District of Virginia?	18	Q With respect to what you just testified
19	A Yes. I remember that. Yes.	19	to, with respect to Ann and Ron, do you
20	Q And I take it you believed it was more	20	understand that they were the people primarily
21	convenient for the case to stay in Virginia?	21	responsible for applying for patents?
22	A Yes, yes, yes.	22	A Yes.
23	Q Do you still have Exhibit 18 in front of	23	Q Were you involved in any way in the
24	you?	24	process by which the patents were sought from
25	A Yes.	25	the U.S. Patent and Trademark Office?
1	Page 9		Page S

24 (Pages 90 to 93)

U.S. LEGAL SUPPORT (714) 486-0737

### William Halal, Ph.D.

1	WILLIAM HALAL	1.	WILLIAM HALAL
2	my questions, subject to anything you raise.	2	CERTIFICATE
3	CROSS-EXAMINATION	3	DISTRICT OF COLUMBIA
4	BY MR. GROCHOCINSKI:	4	
5	Q Professor Halal, did you contribute to	5	l, the undersigned authority, hereby
6	the patents-in-suit?	6	certify that the foregoing transcript, page 1
7	A Yes.	7	through 103 is a true and correct transcription of
8	Q Do you believe that you were properly	8	the deposition of William E. Halal, Ph.D, taken
9	named as a coinventor on the patents-in-suit?	9	before me at the time and place set forth on the
10	MR. WILLIAMSON: Object. Leading.	10	title page hereof.
11	MR, GROCHOCINSKI: You can answer.	11	I further certify that said
12	THE WITNESS: Should I answer this or not?	12	witness was duly sworn by me according to law.
1.3	BY MR. GROCHOCINSKI:	13	I further certify that I am not of
14	Q You can answer the question.	14	counsel to any of the parties to said cause or
15	A Yes, I did.	1.5	otherwise interested in the event thereof.
16	Q Do you have any reason to believe you	16	IN WITNESS WHEREOF I hereunto set my
17	should not have been named as a coinventor?	17	hand and affix official seal this 3rd day of
18	A No.	18	August, 2013.
19	Q If I can just ask you to take out	19	
20	Exhibit 18 very briefly. That is the Utility	20	
21	Patent Application,	21	NATIONAL CARCIA AND TOTAL DEDARKS DEED DED
22	A I got it.	22	RANDI GARCIA, COURT REPORTER, RPR
23	Q If you can turn to page 3549. It's the	23	NOTARY PUBLIC
24	page with well, your name and signature on	24	
25	ìt.	25	Page 104
	Page 102		raya xv.
1	WILLIAM HALAL	1	WILLIAM HALAL
2	A Yes.	2	LCERTIFY THIS IS A TRUE AND
3	Q Did you authorize Dr. Ann Wang to sign	3	ACCURATE TRANSCRIPT FURTHER DEPONENT SAYETH NOT
4	your name on Exhibit 18?	4	, and the second
5	A Yes.	5	
6	Q Do you have any reason to believe that	6	THE WITNESS
7	you didn't authorize her to sign your name?	7	
8	A No.	8	
9	MR. GROCHOCINSKI: That is all I have.	9	
10	MR. WILLIAMSON: Nothing further from me.	10	DISTRICT OF COLUMBIA
11	THE WITNESS: We are done?	11	Sworn and subscribed to before me this
12	MR. WILLIAMSON: We are.	12	day of2013
13	THE WITNESS: That was painless. It was	13	
14	kind of fun.	14	
15	THE VIDEOGRAPHER: This concludes today's	15	Personally knownor
16	videotaped deposition of Dr. William Halal.	16	<u> </u>
17	Going off the record. The time is 11:47 a.m.	17	¥
18	Composit the resolution and the service services	18	
19	(Whereupon, at 11:47 a.m., the deposition	19	
20	was concluded.)	20	Notary Public in and for
21	THE VIEWERSON	21	the District of Columbia at
22		22	Large My Commission Expires
23		23	July 12, 2016
24		24	
25		25	
	Page 103	3	Page 105
L		and more than	

27 (Pages 102 to 105)

U.S. LEGAL SUPPORT (714) 486-0737

### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC., | CIVIL ACTION NO.

CIVIL ACTION NO. 2:12-CV-00548-MSD-DEM

Plaintiff,

17

SAMSUNG ELECTRONICS CO., LTD; SAMSUNG ELECTRONICS AMERICA, INC.; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC

Defendants.

MEMORANDUM IN RESPONSE TO MOTION TO STRIKE DEFENDANTS'
THIRTEENTH COUNTERCLAIM, OR IN THE ALTERNATIVE, MOTION FOR
SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM
RELATED TO INEQUITABLE CONDUCT

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27 CED \$ 1.68	14

#### I. INTRODUCTION

Nearly ten months after initiating this patent infringement lawsuit, plaintiff Virginia

Innovation Sciences, Inc. ("VIS") chose to expand and transform the case by filing a First

Amended Complaint ("FAC") which included for the first time a claim for willful infringement.

Defendants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung

Telecommunications America, LLC (collectively "Samsung") properly filed an Answer to the

FAC, which included an affirmative defense and counterclaim of inequitable conduct. The

allegations underlying the defense and counterclaim stem from VIS's submission of a false
signature to the United States Patent and Trademark Office ("USPTO") during the prosecution of
the asserted patents, and VIS's failure to submit known and self-described "important art" in the
prosecution of certain of those patents. VIS now attempts to avoid the repercussions of its
actions by misstating applicable law and by creating new evidence that contradicts recent
deposition testimony based on a sudden "refreshed recollection."

The FAC changed the scope of this case by adding willful infringement. As a result, Samsung "is allowed to answer the amended complaint anew as though it were the original complaint." *Digital Privacy, Inc. v. RSA Security, Inc.*, 199 F. Supp. 2d 457, 459 n.2 (E.D. Va. 2002). Further, VIS is not entitled to summary judgment on Samsung's inequitable conduct counterclaim. VIS's motion actually *creates* genuine issues of fact through submission of declarations either contradicting prior evidence or reciting in detail alleged facts that its witnesses could not recall in the face of cross-examination. Since triable issues of fact exist that go to the heart of Samsung's inequitable conduct counterclaim, the motion should be denied.

#### II. RELEVANT PROCEDURAL HISTORY

VIS filed its complaint on October 4, 2012. (Doc. # 1.) On July 24, 2013, it filed the FAC. (Doc. # 121.) The FAC included a new count, denoted Count VIII, which asserts that

Samsung willfully infringed the asserted patents. (*Id.* ¶¶ 114-141.) The FAC also added a prayer for relief seeking enhanced damages based on that alleged willfulness. (*Id.*) Samsung then filed a motion under Fed. R. Civ. P. 12 to dismiss the willfulness claim and to strike the related allegations as extraneous (Doc. # 124), which remains pending, and subsequently filed its Answer, Affirmative Defenses, and Counterclaims to the FAC ("Answer"). (Doc. # 131.) Included in Samsung's Answer is a counterclaim based on VIS's inequitable conduct during the prosecution of the patents-in-suit. (*Id.* ¶¶ 70-109.) VIS has now filed the present motion seeking to strike the inequitable conduct counterclaim, or in the alternative for summary judgment on that counterclaim. (Doc. # 141.)¹

#### III. VIS'S MOTION TO STRIKE SHOULD BE DENIED

## A. Standard for Responding to an Amended Complaint

As VIS acknowledges, leave to amend is not required to answer and respond to the filing of an amended complaint. (Doc. # 142 at p. 12 (citing *Elite Entm't, Inc. v. Khela Bros. Entm't*, 227 F.R.D. 444, 447 (E.D. Va. 2005).) The only restriction on such a response is that it reflects the breadth of the amendments to the complaint. *Elite*, 227 F.R.D. at 446. This is a measure of proportionality, not of relation. *See id.* at 446-47 (adopting moderate approach for determining allowable responses and rejecting narrow approach that required relation between the amendments to the complaint and amendments to the response). Thus, as VIS also admits, when an amended complaint changes the scope of the case, the opposing party can respond as of right with new matter–including counterclaims–because the changes are proportional: both expand the scope of the lawsuit. *Id.* As one court faced with this same situation earlier this year put it, "since the amended pleader chooses to redo his original work, and receives the benefit of this

<sup>&</sup>lt;sup>1</sup> VIS does not seek to strike, nor obtain summary judgment on, Samsung's affirmative defense of inequitable conduct. (See Doc. # 141.) Thus that defense is not at issue in this motion.

nunc pro tunc treatment, he can hardly be heard to complain that claims filed against him are improper because they should have been asserted in response to his original pleading." *Hydro Eng'g, Inc. v. Petter Invs., Inc.*, 2013 U.S. Dist. LEXIS 40552 at \*10 (D. Utah Mar. 22, 2013) (internal quotations omitted).

# B. Samsung Is Entitled to Plead Its Inequitable Conduct Counterclaim in Response to VIS's Expanded First Amended Complaint

VIS quotes the "breadth" standard from *Elite* and cites to it as authority to strike

Samsung's counterclaim, but proceeds to apply it in a way squarely rejected by that court. (Doc. # 142 at pp. 12-13.)<sup>2</sup> Specifically, VIS argues (without elaboration) that the Court must strike

Samsung's inequitable conduct counterclaim because it is not "tied" to the willfulness claim.

(*Id.*) But this is a measure of *relation*, and therefore irrelevant under *Elite* and the majority of decisions confronting this issue, which reject that view of allowable counterclaims under Rule

15. *See Elite*, 277 F.R.D. at 446-47; *Turbomin AB v. Base-X, Inc.*, 2009 U.S. Dist. LEXIS 80373 at \*6-7 (W.D. Va. Sept. 2, 2009) ("The federal courts of Virginia, however, appear to have adopted the moderate view."). Indeed, "[w]hen a plaintiff files an amended complaint that changes the scope of the case, the defendant is allowed to answer the amended complaint anew as though it were the original complaint." *Digital Privacy*, 199 F. Supp. 2d at 459 n.2. Further, even under the rejected narrowed approach, Samsung's counterclaim is directly related to VIS's newly-added willfulness claim. Willfulness is based, as a threshold matter, on "infringement of a *valid* patent." *In re Seagate*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (emphasis added).

<sup>&</sup>lt;sup>2</sup> While relying on *Elite*, VIS also appears to argue it is superseded. (Doc. # 142 at p. 12 (citing *Upek, Inc. v. Authentec, Inc.*, 2010 WL 2681734 at \*2-3 (N.D. Cal. July 6, 2010)).) The more accepted view and reasoning is that *Elite* and similar cases are still effective. *See Hydro Eng'g*, 2013 U.S. Dist. LEXIS 40552 at 11-12; *Buffalo Wild Wings, Inc. v. Buffalo Wings & Rings, LLC*, 2011 U.S. Dist. LEXIS 63925 at \*9-10 (D. Minn. Mar. 21, 2011); *cf*, *Fouad Daou v. Abelson*, 2012 U.S. Dist. LEXIS 51997 at \*6 (D. Nev. Apr. 13, 2012).

Samsung's inequitable conduct counterclaim seeks to declare the patents-in-suit invalid and unenforceable, which would automatically defeat the willfulness claim.

Finally, to the extent VIS's "tied to" statement is meant to suggest that Samsung's addition of one counterclaim is disproportionate to VIS's amendments to the FAC, even under the "breadth" standard, that position is incorrect under governing law. *See Digital Privacy*, 199 F. Supp. 2d at 459 (allowing an answer to an amended complaint with *five* new counterclaims even though plaintiff added only one new claim in the amended complaint). Because Samsung was entitled to respond to VIS's FAC with additional material as of right, the Court should deny the motion to strike.<sup>3</sup>

### IV. SUMMARY JUDGMENT LEGAL STANDARDS

#### A. Summary Judgment

Summary judgment is appropriate only where the record, read in the light most favorable to the nonmoving party, indicates that "there is no genuine issue as to any material fact and . . . the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(a); see also Celotex Corp. v. Catrett, 477 U.S. 317, 323-24 (1986). Material facts are those necessary to the proof or defense of a claim, and are determined by referring to substantive law. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). In deciding a motion for summary judgment, "[t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor." Id. at 255.

"When the disposition of a case turns on a determination of intent, courts must be especially cautious in granting summary judgment because resolution of that issue depends on

<sup>&</sup>lt;sup>3</sup> To the extent necessary, leave to amend should be granted in favor of Samsung, because VIS cannot show prejudice or undue delay. VIS admits it was on notice of Samsung's inequitable conduct contentions since April 30, 2013. (Doc. # 142 at p. 13.) Further, Samsung pursued Dr. Halal's deposition well within the discovery period and promptly amended its response upon VIS's changing the case's scope.

the credibility of witnesses as determined by the trier of fact after observation of the witnesses' demeanor during direct and cross-examination." *Morrison v. Nissan Motor Co. Ltd*, 601 F.2d 139, 141 (4th Cir. 1979); *see also Charbonnages de France v. Smith*, 597 F.2d 406, 414 (4th Cir. 1979). Further, even where facts may be undisputed, where parties disagree as to the inferences to draw, summary judgment is inappropriate. *Morrison*, 601 F.2d at 141. This is directly applicable to the issue of inequitable conduct. *See KangaROOS U.S.A. v. Caldor, Inc.*, 778 F.2d 1571, 1577 (Fed. Cir. 1985). This rule applies equally regardless of whether the motion is for summary judgment of inequitable conduct or of no inequitable conduct. *See Banner Pharmacaps, Inc. v. Perrigo Co.*, 2005 U.S. Dist. LEXIS 37842 at \*14-17 (M.D.N.C. Aug. 1, 2005); *3M Innovative Props. Co. v. Dupont Dow Elastomers LLC*, 361 F. Supp. 2d 958, 980 (D. Minn. 2005).

#### B. Inequitable Conduct

To establish inequitable conduct, an accused infringer must prove two separate requirements: intent and materiality. *Therasense, Inc. v. Becton, Dickinson and Co.*, 649 F.3d 1276 at 1290 (Fed. Cir. 2011) (en banc). "[A]s a general matter, the materiality required to establish inequitable conduct is but-for materiality." *Id.* at 1291. Thus a court must determine if absent the inequitable conduct "the PTO would have allowed the claim." *Id.* However, the court recognized an exception to this general rule in "cases of affirmative egregious misconduct" such as submission of an "unmistakably false affidavit," that would not require a showing of materiality. *Id.* 

To meet the intent requirement, an accused infringer must show that the patentee acted with the specific intent to deceive the USPTO. *Id.* at 1290. Such intent can be established by showing that the alleged deceiver: (i) had actual knowledge of the withheld information; (ii) had actual knowledge of its materiality; and (iii) made a deliberate decision to withhold the

information. American Calcar, Inc. v. American Honda Motor Co., Inc., 651 F.3d 1318, 1335 (Fed. Cir. 2011); Therasense, Inc. v. Becton, Dickinson and Co., 2012 WL 1038715 at \*8 (N.D. Cal. Mar. 27, 2012). Proof of intent need not be direct, and may be inferred from indirect or circumstantial evidence. Therasense, 649 F.3d at 1290.

## V. STATEMENT OF GENUINE ISSUES OF FACT<sup>4</sup>

#### A. Inequitable Conduct Counterclaim

- 1) 3) Undisputed but irrelevant.
- 4) Disputed, the stated fact is not supported by the cited evidence. The cited motion brief makes no statement regarding either parties' view on the significance of any reduction in claims or products. (See Doc. ## 113, 114.)
- 5) 12) Undisputed but irrelevant.
- 13) Disputed, the statement is not a statement of fact. The full basis of Samsung's counterclaim is laid out in its pleading. (Doc. # 131 at ¶¶ 70-109.)
- 14) Disputed, the statement is not a statement of fact. To the extent it can be construed as factual, the stated fact is not supported by the cited evidence. None of the cited documents discuss the evidence Samsung intends to rely on in proving its counterclaim. Further, Samsung continues to pursue evidence during the discovery period to prove its allegations.
- **15)** Disputed, the parties were not obligated to respond to any form of discovery until March 11, 2013. (*See* Doc. # 40 at p. 2.)
- 16) Disputed, the statement is not a statement of fact. To the extent it can be construed as factual, the stated fact is not supported by the cited evidence. None of the cited documents

<sup>&</sup>lt;sup>4</sup> The following statements of genuine issues of facts are numbered to correspond with VIS's statement of allegedly undisputed facts. (See Doc. # 142 at pp. 2-11.)

discuss the evidence Samsung intends to rely on in proving its counterclaim. Further, Samsung continues to pursue evidence during the discovery period to prove its allegations.

## B. Dr. Halal's Alleged Signature

- 17) Undisputed but irrelevant.
- 18) Undisputed.
- 19) Disputed, to the extent "signatures on behalf of all co-inventors" implies or is intended to mean Dr. William Halal personally signed the Declaration for Utility or Design Patent Application ("Declaration of Inventorship") or that Professor Halal authorized another to write his name in place of a signature. *See* (Doc. # 142 Exs. 1, 2, 7); Ex. A, Deposition of Tiehong (Ann) Wang-Exhibit 18; Ex. B, Deposition of Tiehong (Ann) Wang-Exhibit 21; Ex C, Deposition of Tiehong (Ann) Wang Transcript 177:6-180:24; Ex. D, Deposition of W. Halal Transcript 86:7-12, 89:14-20, 92:18-23, 91:24-93:2. Undisputed that U.S. Patent Application No. 11/165,341 ("the '341 Application") Declaration of Inventorship contains a writing in the portion provided for Dr. Halal's signature.
- **20)** Disputed, genuine issues of fact exist as to whether Dr. Tiehong (Ann) Wang ("Dr. Wang") had assistance of counsel to file the '341 application. *See*, Ex. C at 165:14-24; Ex. E, Deposition of C. Tobin 25:24-29:24, 40:9-42:9.
- 21) Undisputed but irrelevant.
- 22) Disputed, genuine issues of fact exist as to whether Dr. Wang knew that original signatures were required on the declaration of inventorship based on her deposition testimony, her efforts to obtain original signatures from her other co-inventors, and her efforts to obtain original signatures from Dr. Halal for other USPTO submissions. *See* Ex. C at 177:6-180:24; Ex. A; Ex.

<sup>&</sup>lt;sup>5</sup> All references to exhibits without preceding citations are to the exhibits of the declaration of Brett Williamson in Support of Memorandum in Response to Motion to Strike or in the Alternative for Summary Judgment on Defendant's Thirteenth Counterclaim filed herewith.

- B; Request for Judicial Notice ¶¶ 1-3; (Doc. # 142 at pp. 6-7 (SUF 35-37)).
- 23) Disputed, genuine issues of fact exist as to whether Dr. Wang had authorization. *See*, Ex. C at 177:6-180:24; Ex. D at 89:14-20; 92:18-24.
- 24) Disputed. See Statement of Genuine Issues of Fact ("SGI"), supra, 22, 23.
- 25) Disputed. Id.
- 26) -27) Disputed, Dr. Wang testified that she circulated the '341 Patent Application Declaration of Inventorship for signature. Ex. C at 177:6-178:4.
- 28) Undisputed.
- 29) Disputed, when confronted with the differences between Dr. Halal's actual signature and the one she submitted in the '341 application, Dr. Wang would not agree they looked different, and asserted that she believed they were from the same person. *See* Ex. C at 179:20-180:12; Ex. A; Ex. B. Disputed further whether Dr. Halal authorized Dr. Wang to write his name in for his signature. Ex. C at 177:6-180:24; Ex. D at 89:14-20; 92:18-24.
- **30)** Disputed, genuine issues of fact exist as to Dr. Wang's intent and are further elaborated on in Section VII A. 2., *infra*. *See* Ex. C at 177:6-180:24; Ex. A; Ex. B; RJN ¶¶ 1-3; (Doc. # 142 at pp. 6-7 (SUF 35-37)).
- 31) Disputed, assumes as fact a disputed legal issue. See Ex. D at 92:18-23.
- 32) Disputed, the stated fact is not supported by the cited evidence. (See Doc. # 142 Ex. 1 ¶ 14) (stating only that counsel has been retained to evaluate taking action).
- 33) 34) Undisputed but irrelevant.
- 35) 37) Undisputed.

#### C. Prosecution of the '733 and '398 Patents

- **38) 39)** Undisputed.
- 40) Disputed as to the U.S. Patent No. 7,957,733 ("the '733 Patent") specification. (See Doc. #

- 142 Ex. 18.)
- **41)** Disputed, the stated fact is not supported by the cited evidence. Samsung's thirteenth counterclaim is "focused" on VIS's inequitable conduct. (See Doc. # 131 at ¶¶ 70-109.)
- 42) 45) Undisputed.
- 46) -50) Undisputed but irrelevant.
- 51) Undisputed.
- 52) 59) Undisputed but irrelevant.
- 60) -61) Disputed, the statement is not a statement of fact but a legal conclusion.
- 62) Undisputed.
- 63) 65) Undisputed but irrelevant.
- 66) Disputed, Dr. Almeroth identifies where Rakib discloses every limitation of U.S. Patent No. 8,135,398 ("the '398 Patent") Claim 15. *See* (Doc. # 142 Ex. 33 at ¶ 366); (Doc. # 142 Ex. 34); Ex. F, Excerpt of Dr. Almeroth's Report on Invalidity Ex. C-7 at 1-b.
- **67)** Disputed. *See id.*; (Doc. # 142 Ex. 35).
- 68) 69) Undisputed but irrelevant.
- 70) Undisputed.
- 71) Undisputed to the extent Dr. Wang testified she did not remember when she wrote the words or if it was in connection to the patents in suit. *See* Ex. C at 282:14-284:17. Disputed to the extent this statement of fact suggests alternative time frames for the notation that were not discussed with or suggested by Dr. Wang. *Id*.
- 72) Disputed, genuine issues of fact exist as to Dr. Wang's intent, elaborated on further in VII B. 2 *infra. See*, *id.* at 281:20-287:10; Ex. G, Deposition of Tiehong (Ann) Wang-Ex. 38; Ex. E at 18:6-20, 143:16-146:3.

## VI. STATEMENT OF ADDITIONAL UNDISPUTED FACTS

## A. VIS's First Amended Complaint

- 1) VIS first approached Samsung regarding leave to file an amended complaint before it took the deposition of Woojong Lee. Ex. H, July 9, 2013 E-mail from T. Grochocinski Re: VIS Draft First Amended Complaint; (Doc. # 142 Ex. 5 at 1).
- 2) VIS added a new topic (Topic 47) regarding Samsung's patent and patent applications on June 17, 2013. (See Doc. # 142 Ex. 4).
- 3) VIS's FAC asserts claim 22 of the '268 patent and claim 40 of the '381 patent, which were not previously asserted. (*Compare* Doc. #1 with Doc. #121).

## B. Dr. Halal's Signature

- 4) Dr. Wang obtained personal signatures from Dr. Ximing Wang and Dr. Tiejun (Ron) Wang for the Declaration of Invention filed as part the '341 Application. Ex. C at 177:6-178:4.
- 5) Dr. Wang wrote Dr. Halal's name in his signature block for the '341 Application Declaration of Invention without indicating it was signed by another with authorization, by direction, or any other sign it was not personally signed by Dr. Halal. (Doc. # 142 Ex. 7 at VIS-001821.)
- 6) During all relevant times, Dr. Ximing Wang resided in Beijing China. (Id. at VIS-001822.)
- 7) During all relevant times, Dr. Tiejun (Ron) Wang resided at 9162 Regents Rd. Apt I, La Jolla, CA 92037. (*Id.* at VIS-001821.)
- 8) During all relevant times, Dr. Halal resided 3342 Maud Street NW Washington DC, 20016. (Id.); Ex. D at 90:21-24.
- 9) During all relevant times, Dr. Tiehong (Ann) Wang resided at 1600 Joyce St. Arlington, Virginia 22202. (Doc. # 142 Ex. 7 at VIS-001822); Ex. C at 25:4-10.
- 10) During all relevant times, VIS was headquartered at 1600 Joyce St. Arlington, Virginia 22202. Ex. C at 25:4-10.

- 11) Dr. Halal's residence is within 8 miles driving distance of VIS's headquarters and Dr. Wang's residence. RJN at ¶ 1.
- 12) Dr. Ximing Wang's residence is over 6,900 miles from VIS's headquarters and Dr. Wang's residence. Id. at ¶ 2.
- 13) Dr. Tiejun (Ron) Wang's residence is over 2,600 miles driving distance to VIS's headquarters and Dr. Wang's residence. *Id.* at ¶ 3.
- 14) Of the three co-inventors of the '341 Application besides Dr. Wang, Dr. Halal is the most conveniently located to VIS and Dr. Wang. *Id.* at ¶¶ 1-3.

#### C. Prosecution of the '733 and '398 Patents

- 15) The '341 Application issued as the '492 Patent on March 1, 2011. (Doc. # 142 Ex. 15.)
- 16) U.S. Patent Application No. 11/802,418 ("the '418 Application") was filed on May 22, 2007 and eventually issued as the '733 Patent. (See Doc. # 142 Ex. 16; Doc. # 142 Ex. 18 at VIS-002067.)
- 17) U.S. Patent Application No. 13,067,079 ("the '079 Application") was filed on May 6, 2011 and eventually issued as the '398 Patent. (See Doc. # 142 Ex. 17.)
- 18) the '418 Application is the immediate parent of the '398 Patent. (See id. at VIS-002789.)
- 19) VIS asserted the '733 Patent in its FAC. (See Doc. # 121 at ¶¶ 78-95.)
- 20) The claims of the '733 Patent and the '398 Patent are similar and any differences between them would be obvious to a person of ordinary skill in the art. (*Compare* Doc. # 142 Ex. 16 with Doc. # 142 Ex. 17.)
- 21) VIS informed Samsung it was not asserting the '733 Patent on July 29, 2013. See Ex. I, July 29, 2013 E-mail from T. Grochocinski re: VIS Further Narrowing.
- 22) During the prosecution of U.S. Patent Application 13/370,483, Dr. Wang directed her patent attorney Christopher Tobin to disclose to the Examiner prior art references that had been

considered by the examiner in the '341 Application to which it claimed priority. Ex. E at 139:12-140:15, 142:24-143:8, 143:16-146:3.

- 23) Dr. Wang stated she provided Rakib (U.S. Patent No. 6,970,127) to her prosecution counsel after determining that it was related to ongoing patent applications. Ex. C at 281:20-287:10.
- 24) VIS has had only one prosecution attorney, Mr. Christopher Tobin. Id. at 167:12-16.
- **25)** Mr. Tobin did not recall Dr. Wang ever giving him a copy of Rakib to consider or disclose to the USPTO. Ex. E at 168:25-170:11.
- 26) Rakib was not considered by the Patent Office during prosecution of the '733 nor the '398 Patents. (Doc. # 136 at ¶ 47.)
- 27) Rakib discloses the limitation "converting the multimedia content item for reproduction according to a determined signal format of the destination device." (Doc. # 142 Ex. 33 at ¶ 366); (Doc. # 142 Ex. 34 at 15-d); Ex. F at 1-b.
- 28) Rakib anticipates or renders obvious the claims of the '398 Patent and the '733 Patent. *Id.*; Ex. J, Excerpts of Samsung's Fifth Supplemental Interrogatory Responses Ex. B at p. 324-400.

  29) VIS's prosecution counsel would have considered the materiality of art considered by an examiner in a another case for potential disclosure in another, even if it was parent-child related. Ex. E at 124:14-126:20, 146:17-24.Dr. Wang was intimately involved with the prosecution of the asserted patents, even after retaining prosecution counsel. Ex. E at 54:23-55:10, 143:16-146:9;

# VII. GENUINE ISSUES OF MATERIAL FACT PRECLUDE SUMMARY JUDGMENT ON SAMSUNG'S INEQUITABLE CONDUCT COUNTERCLAIM

Because VIS cannot show an absence of genuine issues of material fact on either one of the independent factual bases for Samsung's counterclaim for inequitable conduct, its motion for summary judgment should be denied.

Ex. C at 189:8-192:15.

#### A. Professor Halal's False Signature

At a minimum, genuine issues of fact exist as to whether the writing falsely represented as Dr. Halal's signature constitutes an unmistakably false affidavit and whether Dr. Wang submitted the false signature with an intent to deceive the USPTO. In addition, VIS implicitly acknowledges the but-for materiality of the false signature by stating that it is submitting a supplemental declaration to the USPTO, in an attempt to correct the Declaration of Invention. (See, e.g., Doc. # 142 at p. 21.)

## 1. Unmistakably False Affidavit

In Therasense, the Court created an exception to the but-for materiality requirement when the patent applicant submits an unmistakably false affidavit. 649 F.3d at 1285. A Declaration of Invention is a sworn document equivalent to an affidavit. (See Doc. # 142 Ex. 7 at VIS-001821); 37 C.F.R. § 1.68 (allowing declaration if executing party acknowledged penalty of perjury and potential invalidation of patent for falsehoods); Manual of Patent Examining Procedure ("M.P.E.P.") §715.04 (discussing equivalence of affidavit and declaration for practice before USPTO). The '341 Application Declaration of Invention contains a misspelled writing of Dr. Halal's name that is not his signature. See Ex. D at 91:23-93:2; Exs. A, B (SGI 19). Dr. Wang forged Dr. Halal's signature without any indication it was signed by direction, or with authorization. See Ex. A (Statement of Additional Undisputed Fact ("SAUF") 5); Ex Parte Edward C. Hipkins, Sr. and Frank M. Locotos, No. 90-2250, 20 U.S.P.Q.2D 1694, 1991 Pat. App. LEXIS 14 at \*12-13 (B.P.A.I. Aug. 7, 1991) (noting that "Linda Scott could readily have signed the declaration in a manner to indicate that Locotos did not actually execute the document (e.g., Frank M. Locotos by Linda Scott), but chose not to do so" and that "[i]nstead, she chose to sign in such a fashion that third party observers, such as PTO personnel, would believe that Locotos himself signed the document or at the very least that the declaration was not signed by

another on Locotos' behalf'). As VIS's own prosecution counsel acknowledged, a declaration that includes a name written into the signature block, with nothing more, is not just a statement of the text laid out in the document, but also a representation that it is "signed by who is --is indicated as it is signed by" and the writing is "represented to [the reader] as a signature" that is "in fact signed by that person." Ex. E at 50:14-19, 51:12-21.

In the '341 Application Declaration of Invention, Dr. Wang submitted a sworn declaration that represented to the USPTO that Dr. Halal had signed it and that the writing in his signature block was his signature. *Ex Parte Hipkins*, 1991 Pat. App. LEXIS 14 at \*13 ("[T]he declaration, by failing to indicate that the signature was made 'by Linda Scott,' on its face falsely represented that the named inventor had himself executed the declaration.") This was false; the signature is unmistakably a forgery. Additionally, genuine issues of fact exist as to whether Dr. Wang was even authorized by Dr. Halal to falsely sign his signature, since Dr. Halal at first did not recall granting authorization, before changing his testimony, and Dr. Wang testified that she did *not* get Dr. Halal's authorization to sign. Ex. C at 177:6-180:24; Ex. D at 89:14-20; 92:18-24 (SGI 19, 23). Therefore, the Declaration of Invention was an unmistakably false affidavit and it is per se material. *See Outside the Box Innovations, LLC v. Travel Caddy, Inc.*, 695 F.3d 1285, 1294 (Fed. Cir. 2012) (discussing that a false declaration of small entity status would constitute an unmistakably false affidavit); *Therasense*, 649 F.3d at 1290.

<sup>&</sup>lt;sup>6</sup> VIS protests Samsung's characterization of Dr. Halal's signature as false and a forgery based on its newly created testimonial evidence that Dr. Wang had authorization to sign for Dr. Halal. (Doc. # 142 at p. 22, n.11.) Even if this fact were undisputed (which it is not), the signature is still false and forged. *See Ex Parte Hipkins*, 1991 Pat. App. LEXIS 14 at \*10-12 (holding that signature was false even though it was signed with consent and affirming Examiner's opinion that signature was forged).

## 2. A False Signature is Material

Even if Dr. Wang's submission of the Declaration of Invention does not constitute an unmistakably false affidavit, VIS still cannot show beyond a genuine issue of fact that it is immaterial. As VIS implicitly acknowledges by stating that it is submitting a supplemental declaration to the USPTO,<sup>7</sup> a personal signature is required on a Declaration of Invention. (Doc. # 142 at p. 21); 37 C.F.R. §1.64 (2005) ("The oath or declaration . . . must be made by all of the actual inventors except as provided for in §§ 1.42, 1.43, 1.47, or § 1.67."). As recognized in *Ex Parte Hipkins*, "the rules of practice in patent cases set forth only a limited number of circumstances where someone other than the actual inventor may make the necessary oath or declaration for a patent application." 1991 Pat. App. LEXIS 14 at \*4. These are currently delineated in 37 C.F.R. § 1.64, none of which VIS claims apply here, and all of which require a substitute statement, not simply submission of a false signature. "Moreover, there is no provision in the rules of practice that allows someone other than the inventor to sign the inventor's name to the oath or declaration." *Ex Parte Hipskins* 1991 Pat. App. LEXIS 14 at \*4.

Further, simple statutory interpretation shows that a patent is per se invalid if it does not strictly comply with the requirements of 35 U.S.C. §115 and 37 C.F.R. §1.64. Otherwise there would be no need to provide for substitute statements or exceptions. 37 C.F.R. § 1.64. Nor would Congress have found it necessary to amend 35 U.S.C. § 115 to authorize supplemental declarations for applications filed after September 2012 and indicate such supplementation would cure invalidity. *See* Leahy-Smith America Invents Act, 125 Stat. 293 §4 (a), (e) (amending 35 U.S.C. §115 and describing effective date). Further, if a false signature did not make the patent invalid, there would have been no need to seek reissue of the patent in *Ex Parte* 

<sup>&</sup>lt;sup>7</sup> Notably, Dr. Wang's declaration on which VIS relies only states she has retained prosecution counsel to evaluate the situation. (*See* Doc. # 142 at ¶ 14 (SGI 32).)

*Hipskins*. 1991 Pat. App. LEXIS 14 at \*2 (seeking reissue under 35 U.S.C. §251, a provision applying to patents "deemed wholly or partly inoperative or invalid").<sup>8</sup>

Importantly, VIS cannot *now* rely on remedial measures to avoid a finding of inequitable conduct; the fact it could have obtained or can correct the patent by following proper procedures now is not a remedy that affects *this* lawsuit. *See Applied Materials, Inc. v. Multimetrixs, LLC*, 2008 U.S. Dist. LEXIS 55635 at \*18-19 (N.D. Cal. July 22, 2008) ("The availability of valid alternatives is not the issue. The issue is whether what the surviving inventors in fact chose to do was inequitable conduct.") Any allegedly available alternatives are irrelevant and any purported remedial measures planned are speculative until completed. In addition, VIS admits that Dr. Halal is a proper inventor *required* to sign the declaration of invention or have a substitute statement filed on his behalf. 35 U.S.C. § 115(a). (Doc. # 142 at p. 6 (SUF 33).) But for Dr. Wang's submission of the forged Dr. Halal signature, the '492 Patent would not have issued because it failed to meet the statutory requirements for a patent grant. *Id.* <sup>10</sup>

<sup>&</sup>lt;sup>8</sup> VIS cites *Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338 (Fed. Cir. 2000) to argue that a declaration of inventorship signed on an inventor's behalf with authorization cannot form the basis for a claim of unenforceability or invalidity of the patent. *Ajinomoto*, however, involved an appeal from a *trial* judgment handed down after summary judgment motions were *denied*, where the trial court concluded, after reviewing all of the evidence, that there was no deceptive intent on the part of the applicant. *Id.* at 1343-44.

<sup>&</sup>lt;sup>9</sup> This is especially the case here, where VIS does not indicate on what authority it has allegedly "taken steps to correct the signature" and its CEO only states she has retained counsel to evaluate the issues. (Doc. # 142 at p. 21; Doc. # 142 Ex. 1 at ¶ 14 (SGI 32).)

<sup>&</sup>lt;sup>10</sup> VIS has requested that if the Court denies its motion, it be granted leave to retain an expert and submit a supplemental brief on the materiality or falseness of Dr. Halal's forged signature. (Doc. # 142 at p. 22 n.11.) Such leave would be futile, since the matter at issue is a legal one involving the interpretation of statutes and administrative rules, a matter squarely within the expertise of the Court. *Burkhart v. Washington Metro*, 112 F.3d 1207, 1218 (D.C. Cir. 1997) ("Each courtroom comes equipped with a 'legal expert,' called a judge.") Expert opinions comprising legal analysis and conclusions are improper. *Icagne v. Bakker*, 35 F.3d 978, 993 n.21 (4th Circ. 1994). Thus VIS's request should be denied.

## 3. Dr. Wang's Intent as to the Halal Signature is a Genuine Issue of Fact

VIS cannot show the absence of a genuine issue of fact regarding Dr. Wang's intent in submitting the forged Dr. Halal signature by simply creating contradictory testimonial evidence. As a preliminary matter, the disposition of this issue must be treated with extra caution, because resolving issues of intent "depends on the credibility of witnesses as determined by the trier of fact after observation of the witnesses' demeanor during direct and cross-examination."

Morrison, 601 F.2d at 141. Reliance on a declaration not subject to cross-examination and without the ability to observe the witnesses demeanor would be inappropriate, especially in light of a witness's contradictory deposition testimony, previously faulty memory, and the parties' dispute over the inferences to be drawn from the evidence. *Id*.

The evidence demonstrates that, at a minimum, a genuine issue of fact remain as to whether Dr. Wang intended to deceive the USPTO. Intent to deceive can be shown when the deceiver (i) had actual knowledge of the withheld information, (ii) had actual knowledge of its materiality; and (iii) made a deliberate decision to withhold the information. *American Calcar*, 651 F.3d at 1335. First, it is undisputed that Dr. Wang had actual knowledge that the signature she was submitting was not Dr. Halal's personal signature. (Doc. # 142 Exs. 1,7); Ex. D at 91:23-25, 92:24-93:2 (SAUF 5). Further, the circumstantial evidence, when interpreted in Samsung's favor (as it must be on this motion), and Dr. Wang's subsequent inconsistent testimony strongly supports the conclusion that Dr. Wang had actual knowledge that the absence of Dr. Halal's actual signature was material. *See* Ex. C at 177:6-180:24, Exs. A, B; RJN ¶¶ 1-3; (Doc. # 142 at pp. 6-7, (SUF 35-37)) (SGI 22). Dr. Wang's declaration that she believed personal signatures were not required is belied by both her contemporaneous actions and her deposition testimony in this case. (*See* Doc. # 142 Ex. 1 at ¶ 9.) If she believed signatures by direction were clearly acceptable and was open to accommodating her co-inventors'

convenience, it begs the question why she would sign by direction for the inventor eight miles away but not for the inventors over 6,900 and 2,600 miles away. See, (Doc. # 142 Ex. 7); RJN ¶ 1-3 (SAUF 4-14). Or why she would submit original signatures in other instances. (See, e.g., Doc. # 142 at pp. 6-7 (SUF 35-37).) In fact VIS points to no other instance where Dr. Wang extended this "courtesy." A reasonable jury could conclude and infer from these facts that Dr. Wang made these efforts because she knew that an original signature was required and that failing to disclose its falsity was material to the issuance of the patent.

Dr. Wang's deposition testimony also provides evidence from which a reasonable jury could infer she knew a personal signature was required and that the falsity of the signature would be material. During her deposition, Dr. Wang was presented with the following signatures:

Signature on the '341 Declaration:

Signature on the Declaration in Support of Opposition to Motion to Transfer:

Respectfully submitted.

William E. Halal, Ph.D.

Inventor's Signature

villiam Halal

Exs. A, B. When questioned, she would not agree that they looked like different signatures and testified that these were signatures from the same person despite the different styles and the misspelling of "Halal." Ex. C at 179:20-180:19 (SGI 30). If Dr. Wang believed signing by direction was sufficient, and it was her practice to do so for convenience, it is inexplicable that her recollection of receiving authorization would not be refreshed at the time she was confronted with the differences during her March 2013 deposition. A reasonable jury could conclude that in light of this testimony, it was clear that Dr. Wang knew the false signature was material and, as a result, testified Dr. Halal personally signed it in order to preserve the validity of her patent.

Dr. Wang's failure to indicate she was signing per Dr. Halal's alleged authorization also provides evidence of her knowledge of the materiality of falsifying a signature and that she

deliberately decided to withhold from the USPTO that it was not a personal signature. See Ex Parte Hipskins, 1991 Pat. App. LEXIS 14 at \*13 (holding that failure to indicate that a signature was made by another can provide ample evidence from which to conclude patentee sought to mislead the USPTO). If Dr. Wang believed an authorized signature by another was allowed, there would be no reason for her to resist indicating that she placed Dr. Halal's "signature" on the declaration with his authorization.

#### B. Dr. Wang's Failure to Disclose Important Prior Art

Genuine issues of fact also exist regarding Dr. Wang's failure to provide important prior art to the USPTO, that this failure was material, and that it was done with intent to deceive.

#### 1. VIS Has Not Shown That the Undisclosed Art was Immaterial

VIS argues that it was excused from disclosing Rakib during the prosecution of the '733 and '398 Patents and that even if it did disclose the art it would not have resulted in a rejection. (Doc. # 142 at pp. 22-24, 25-27.) However, as demonstrated below, VIS did in fact have an obligation to disclose Rakib, and the evidence interpreted in the light most favorable to the Defendants shows that Rakib anticipates or renders obvious the claims granted in the patents.

See (Doc. # 142 Ex. 33 at ¶ 366); (Doc. # 142 Ex. 34 at 15-d); Ex. F at 1-b (SAUF 28).

# a. VIS Was Not Excused from Disclosing Rakib and Other Material Prior Art to the USPTO

VIS argues that the '492 patentees "did not have a duty to disclose art cited in a parent application." (Doc. # 142 at p. 22.) VIS's interpretation of the law is incorrect. The M.P.E.P. informs the applicant only that "[w]hen filing a continuing application . . . , it will not be necessary for the applicant to submit an information disclosure statement in the continuing application that lists the prior art *cited* by the examiner in the parent application." M.P.E.P. §

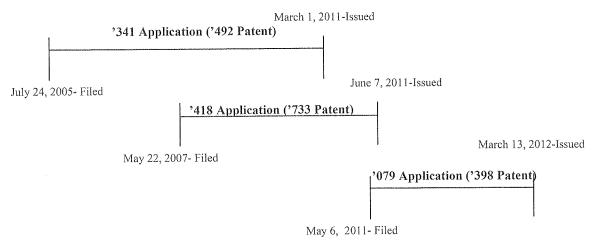
609.02 (emphasis added). Further, at least one Court has held that the "examiner's responsibility under M.P.E.P. §609.02 extends only to the parent application, i.e., the application immediately preceding the application being examined." *Ormco Corp. v. Align Technology, Inc.* 2009 WL 466070 at \*9-10 (C.D. Cal. Feb. 23, 2009).

U.S. Patent Application No. 11/802,418 ("the '418 Application") which issued as the '733 patent, was filed on May 22, 2007 as a continuation of the '341 Application. (Doc. # 142 Exs. 17, 18 (SAUF 16).) When the '418 Patent was filed, Rakib had not been cited by the examiner in the parent '341 Application. (Doc # 142 Ex. 16 (SUF 51, SAUF 16).) Thus the applicant was *not* excused from its obligation to disclose material prior art to the examiner once they learned of it. M.P.E.P. § 609.02 The reason for the distinction is a practical one; it cannot be assumed that an examiner "retains details of every pending file in his mind when he is reviewing a particular application." *McKesson Info. Solutions, Inc. v. Bridge Med., Inc.*, 487 F.3d 897, 925 (Fed. Cir. 2007). Indeed, VIS's own patent counsel said he would consider and disclose prior art cited in one case in another if he determined it was material, even if there was a parent-child relationship. Ex. E at 124:14-126:20, 146:17-24. Therefore, Mr. Tobin and Dr. Wang were not excused from their obligation to disclose Rakib and other references cited by the examiner in the '341 Application and could not assume the examiner was aware of them.

U.S. Patent Application No. 13/067,079 ("the '079 Application), issuing as the '398 patent, stated it was "continuation of U.S. Application Ser. No. 11/802,418." (Doc. # 142 Ex. 17; Doc. # 142 Ex. 19 at VIS-002389, ¶ 0001 (SAUF 18).) The '398 Patent was filed May 6, 2011,

<sup>&</sup>lt;sup>11</sup> VIS's citation and quotation of M.P.E.P. §609.02(A)(2) is inapposite. (Doc. # 142 at p. 23.) It is a provision governing the examiner, not the applicant, and governs only an "IDS That Has Been Considered (1) in the Parent Application." M.P.E.P. § 609.02(A). It does not govern the Applicant's obligations for material references cited by an examiner in an office action and Notice of References Cited. *Id.* 

after the '341 Application issued as the '492 Patent. (*Id.*; Doc. # 142, Ex. 15.) The application immediately preceding the '079 Application was the '418 Application. (*Id.* (SAUF 18).) The '079 Application could not have been filed as a continuation to the '341 Application. M.P.E.P § 201.07. The below chart illustrates the relationships between the Applications in question:



(See Doc. # 142 Exs. 15-17). Because the '341 Application was not the application immediately preceding the '079 Application, the applicant was not excused from disclosing material references cited in the '341 Application. *Ormco*, 2009 WL 466070 at \*9-10 (holding that applicant failed to demonstrate it was reasonable to assume a matter submitted in a non-immediate parent application (e.g., grandparent, great grandparent) was before the examiner).

b. At a Minimum, Rakib Was Material Because it Anticipates and Renders Obvious Issued Claims in Both the '733 and '398 Patents

Rakib is but-for material because an examiner provided with the reference would have rejected or required amendment to certain claims in the '733 and '398 patents. VIS's sole argument against the materiality of Rakib is that it purportedly fails to disclose a "conversion of the multimedia content item" limitation present in all claims of the '733 and '398 Patents. VIS gives an example from claim 15 of the '398 Patent, which provides for "converting the multimedia content item for reproduction according to a determined signal format of the

destination device." (See Doc. # 142 at p. 25-27.) However, VIS does not and cannot establish as an undisputed fact that Rakib fails to disclose this limitation.

First, VIS's statement that "Dr. Almeroth's report does not identify where the 'conversion' limitation is present in Rakib" (*id.* at 26) is simply incorrect. In his report, Dr. Almeroth opines that Rakib anticipates the asserted claims of the '398 Patent, including claim 15, in Exhibit C-7. (Doc. # 142 Ex. 33 at ¶ 366); (Doc. # 142 Ex. 34 at 15-d); Ex. F at 1-b (SAUF 28). Specifically, the so-called "conversion" limitation is analyzed in 15-d, which references his analysis of the identical limitation in claim 1 and which VIS conveniently leaves out of its excerpt of his report. *Id.* (SAUF 27). Dr. Almeroth opined that:

Rakib '127 either discloses or renders obvious "converting the multimedia content item for reproduction according to a determined signal format of the destination device."

For example, Rakib '127 discloses "The adapter 36 then receives the packets and buffers them in a buffer big enough to take out network latency, bandwidth limitations and jitter, decompresses the data and generates audio and video signals from the digital data for output to TV 34. Similar processing occurs for digital data requested by the other peripherals or the remote 30. Typical peripherals in a customer premises that the gateway couples to the headend circuitry that service them are: digital VCR 38, home computer 40, digital FAX 42, network computer 44, digital security video camera 46 and digital telephone or videophone 48." Rakib '127, 7:48-58.

Rakib '127 also discloses converting the multimedia content according to a determined signal format of the destination device by the PDA or cellular phone. For example, "One or more MPEG decompression programs 420 control host 400 to receive MPEG compressed streaming video of previews, game video, etc. to be displayed on remote display 402 and decompress the video back to its uncompressed state. Program(s) 420 then control host 400 to convert the video to a state in which it can be viewed on display 402 and stores each frame of data in frame buffer 410." Rakib '127, 32:56-62.

See also, "One difference of the incorporated receiver 106 over the prior art DirecTV receivers etc. is that the prior art receivers contain circuitry to decompress the compressed digital video and audio data and convert it to analog video and audio signals but receiver 106 does not. These functions still need to be performed, but they are split out and performed in video decompression and conversion circuit 110 which is coupled to the receiver 106 and conventional

modem 130 and transceiver 128 through a router or crossbar switching circuit 112. . . . If the digital video data is to be simply viewed and not recorded, operating system 116 controls CPU 118 to control switch 112 to couple output 120 of the receiver 106 to the input 124 of the decompression and conversion circuit 110. Circuit 110 then decodes the MPEG digital video broadcast packets to generate uncompressed YUV digital video data which is then converted in a video encoder (not shown) in circuit 110 to an analog NTSC, PAL or SECAM output video signal on line 126 for coupling to the video input of TV 82. Compressed audio is decompressed and converted in an audio processor (not shown) in circuit 110 to an analog audio signal for coupling to the audio input of TV 82." Rakib '127, 11:36-67.

## Ex. F at 1-b (emphasis added).

Second, Samsung's pending motion for summary judgment of invalidity relies on Rakib as one of just two primary prior art references to establish the invalidity of the '398 Patent. (See Doc. # 135 at pp. 34-35.)<sup>12</sup> In sum, VIS's claim that Rakib was immaterial to the prosecution of the '398 and '733 Patents is belied by the evidence.

# 2. Dr. Wang's Intent as to the Failure to Disclose Prior Art is a Genuine Issue of Fact

VIS again argues that Dr. Wang's declaration, which stands in contrast to the reasonable inferences drawn from her deposition testimony, documents, and the deposition testimony of others, establishes that she had no intent to deceive as a matter of law. However, contrary to VIS's argument, such a finding requires evaluation of demeanor and is therefore inappropriate for summary judgment under Fourth Circuit law. *Morrison*, 601 F.2d at 141.

<sup>&</sup>lt;sup>12</sup> VIS also argues that Dr. Almeroth did not opine on the invalidity of VIS's '733 Patent. (Doc. # 142 at p. 27). This is a red herring. All claims of the '733 Patent were withdrawn from VIS's infringement case prior to Dr. Almeroth's report being submitted. Ex. I SAUF 21. The claims of the '733 and '398 patents are similar and the specifications are identical. (*Compare* Doc. # 142 Ex. 16 with Doc. # 142 Ex. 17.) The reasons discussed in Dr. Almeroth's opinion on Rakib and the '398 Patent claims would have equal weight and materiality to the '733 Patent claims including the conversion limitation present in both patents. *Id.* Further, weeks ago Samsung provided VIS with its contentions regarding anticipation and obviousness of the '733 patent claims based on Rakib. See Ex. J. Specifically, at page 342, Samsung pointed out that Rakib disclosed the "conversion" limitation.

Beyond Dr. Wang's conclusory and conflicting declaration, VIS does not offer any facts to dispute that Dr. Wang knew of Rakib and its materiality. Instead, VIS merely offers new declaration testimony regarding her general inability to recollect anything about when she discovered the reference, or when she made the annotations below to her personal copy of Rakib:

(74) Attorney, Agent, or Firm-Thelen Reid & Priest LLP ABSTRACT

A system for wireless remote control of a gateway and ordering or invocation of services provided by a headend. The remote control includes a video display and user input device or keyboard and can decompress and display compressed streaming video in some embediments. Some species of the remote control can act as web browsers, appliance control, TIVO function control, an IP telephony telephone, a cellular telephone and/or an MP3 player. In some embediments, the gateway and/or headend can implement TIVO-like functions under control from a wireless remote of custom design or implemented on a Personal Digital Assis127 B2

Although the invention has been disclosed in terms of the preferred and alternative embodiments disclosed herein, those skilled in the art will appreciate possible alternative embodiments and other modifications to the teachings disclosed herein which do not depart from the spirit and scope of the invention. All such alternative embediments and other modifications are intended to be included within the scope of the claims appended hereto. What is claimed is:

1. A wireless remote control comprising:

a personal digital assistant or other handheld device (both hereafter referred to as a personal digital assistant) having a host processor, a display capable of displaying video, a user input device for receiving commands and/or text input, and audio input/output circuitry, and

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a wireless transcriver coupled to said personal digital assistant host processor for transmitting data to and receiving data from another wireless transceiver;

and wherein said memory stores an operating system and one or more programs to control said host processor to display digital video recording and playback menus on said display of said personal digital assistant and to monitor for input of digital viden recording or playback commands entered via said user input device and for sending said commands to a digital video recording and playback enabled gateway or via said gateway and a hybrid liber coaxial cable or DSL data path to a digital video recording and playback enabled headend to invoke the desired digital video recording or playback function such that said personal digital assistant can act as a remote control for said digital video recording and playback enabled gateway or said digital video record-ing and playback enabled beadend.

Ex. G at VIS-000014, VIS-000040. VIS then argues that Dr. Wang was relying on the intricacies of M.P.E.P. §609.02 as excusing her obligation to disclose material prior art to the USPTO, despite her "lack of formal legal training." (Doc. # 142 at p. 24.) However, that argument is called into dispute by her actions, her deposition testimony, and the deposition testimony of her prosecution counsel.

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Dr. Wang testified at deposition that upon reviewing Rakib and making the determination it was related to the patents being prosecuted, she provided it to her prosecution counsel, Mr. Tobin. Ex. C at 281:20-287:10 (SAUF 23). To now state in her declaration that she relied on her understanding that there was no requirement to disclose the reference, which is governed by

the intricacies of M.P.E.P. § 609.02, creates at the very least a genuine issue of fact regarding her understanding of her obligation. <sup>13</sup> Further, on other occasions Dr. Wang directed Mr. Tobin to file art previously cited or considered by the examiner in parent applications. Ex. E at143:16-146:3 (SAUF 22). Finally, Mr. Tobin himself said he would consider a reference's materiality to decide whether to disclose it where a parent and child applications were co-pending. *Id.* at 124:14-126:20, 146:17-24 (SAUF 29). A reasonable jury could infer that if Dr. Wang had no formal training, her view of her obligations—and specifically of the limited exception to those obligations in M.P.E.P. §609.02—would come from her only prosecution counsel.

Further, the evidences shows, and at a minimum would allow a reasonable jury to find by clear and convincing evidence, that Dr. Wang knew about Rakib while the '733 and '398 Patents were pending, knew it was material, and made a deliberate decision to withhold it. Dr. Wang and Mr. Tobin both testified that Dr. Wang was heavily involved with the prosecution of VIS's patents. Ex. E at 54:23-55:10, 143:16-146:9; Ex. C at 189:8-192:15 (SAUF 30). She would attend examiner interviews, review office actions, and review amendments. *Id.* It is reasonable to conclude she had knowledge of Rakib shortly after February 21, 2008, when the examiner first cited Rakib in '341 Patent Application prosecution. (*See*, Doc. # 142 at p. 8, SUF 51.) This is corroborated by her possession of a marked-up copy of Rakib. Ex. C at 282:14-287:22 (SUF 70). Her inability to recall the timing or specifics does not contradict or rebut this evidence.

Further, Dr. Wang's notation "Caution Important Art" next to Rakib's claim 1 and her testimony that she disclosed it to her prosecution counsel show that she knew it was material.

Mr. Tobin's inability to remember such a disclosure can give rise to an inference of knowing

<sup>&</sup>lt;sup>13</sup> It is also notable that Dr. Wang declares she was both unfamiliar with patent requirements like the need for actual signatures on a Declaration of Inventorship, but so familiar the requirements to disclose art in subsequent applications that she did not even give it to her prosecution counsel. (Doc. # 142 Ex. 1 at ¶¶ 9, 17); Ex. E at 168:25-170:11.

omission by Dr. Wang. A jury is allowed to find Mr. Tobin more credible than Dr. Wang, and infer from the latter's contradictory accounts regarding disclosure of Rakib that Dr. Wang knew the reference was material. For the same reasons, this evidence also supports the inference that Dr. Wang made a deliberate decision not to disclose Rakib to the USPTO despite her knowledge of its materiality. As does her direction to Mr. Tobin to disclose in other application references previously cited in parent applications to the USPTO. Ex. E at 143:6-146:3 (SAUF 22). At the very least, issues of fact remain that preclude summary judgment.

#### VIII. CONCLUSION

For the forgoing reasons, Samsung respectfully requests that VIS's motion to strike or in the alternative for summary judgment be denied in its entirety.

Dated: August 26, 2013

Respectfully submitted,

By: /s/ Robert W. McFarland Robert W. McFarland

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I hereby certify that on August 26, 2013, a true and correct copy of the foregoing was filed electronically using the CM/ECF system. As such, this document was served on all counsel who have consented to electronic service, including as follows:

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Samsung Telecommunications America, LLC

## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

VIRGINIA INNOVATION SCIENCES, INC.,

Plaintiff,

٧.

SAMSUNG ELECTRONICS CO., LTD, SAMSUNG ELECTRONICS AMERICA, INC. and SAMSUNG TELECOMMUNICATIONS AMERICA LLC,

Defendants.

Case No. 2:12-CV-0548-MSD-DEM

PLAINTIFF'S REBUTTAL BRIEF IN SUPPORT OF MOTION TO STRIKE DEFENDANTS' THIRTEENTH COUNTERCLAIM OR, IN THE ALTERNATIVE, MOTION FOR SUMMARY JUDGMENT ON DEFENDANTS' THIRTEENTH COUNTERCLAIM RELATED TO INEQUITABLE CONDUCT

DATED: September 4, 2013

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#### I. <u>INTRODUCTION</u>

No reasonable jury could find inequitable conduct in this matter. Defendants' claim is exactly the type that the Federal Circuit addressed in *Therasense*, seeking to prevent efforts by defendants to "cast a dark cloud over the patent's validity and patentee as a bad actor." *Therasense*, *Inc. v. Becton Dickinson and Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc). Defendants' strained attempts to manufacture a genuine issue of material fact ignore the legal framework articulated by the Federal Circuit in *Therasense*.

The following is undisputed:

- Professor Halal authorized Dr. Ann Wang to sign his name in conjunction with the filing of the '492 patent. Ex. 41, Deposition of Dr. William Halal ("Prof. Halal") at 103:3-8.
- Dr. Ann Wang signed Prof. Halal's name pursuant to his authorization. Pl.'s Mot. (Doc. #142) Ex. 1 at ¶ 10.
- At her deposition, Dr. Ann Wang did not remember having signed Prof. Halal's name eight years earlier. Defs.' Resp. (Doc. #152) Ex. C at 180:20-24.
- After reviewing his deposition testimony, Dr. Ann Wang remembered signing Prof. Halal's name. See Doc. #142 Ex. 1 at ¶ 10.
- Dr. Ann Wang was not represented by counsel when she signed Prof. Halal's name. *Id.* at ¶ 7.
- At the time she signed Prof. Halal's name, Dr. Ann Wang was not aware that original signatures were required. Id. at ¶ 9.
- MPEP § 609.02 specifically states that there is no duty to disclose references cited in a parent in a continuation-in-part application.

This evidence cannot form the basis for a finding of intent to deceive. It can only serve to taint the jury's view of Virginia Innovation's case without justification.

In addition, Defendants have failed to meet the "but-for" materiality test articulated in *Therasense*. Had Prof. Halal personally signed the declaration, the outcome would remain

unchanged. All patents-in-suit would have issued with the same claim set. Further, the only reference relied on by Defendants, Rakib, fails to disclose the "conversion" limitation in every claim of the '733 and '398 patents. This was argued by the patentees, and acknowledged by the examiner, five times.

Finally, Defendants failed to comply with FED. R. CIV. P. 15. To counter Virginia Innovation's arguments, Defendants attempt to stretch the limits of clearly established case law to justify their failure to seek leave from the Court to assert a new counterclaim for inequitable conduct.

Defendants cannot meet their burden. This is one of the situations the Federal Circuit specifically sought to disallow in *Therasense*. As a result, Virginia Innovation's motion should be granted and, for the reasons stated herein, Defendants' Thirteenth Counterclaim, and their affirmative defense of inequitable conduct, should be dismissed.

## II. STATEMENT OF UNDISPUTED FACTS

## A. Defendants' Statement of Undisputed Facts

#### VIS's First Amended Complaint

- 1. Admit.
- 2. Admit.
- 3. Disputed. Both the Original and First Amended Complaint had alleged that Defendants had directly infringed, and continued to infringe, *at least* the claims identified therein. *See, e.g.*, Compl. (Doc. #1) at 3 and First Am. Compl. (Doc. #121) at 3.

#### Prof. Halal's Signature

- 4. Admit.
- 5. Admit.

- 6. Admit.
- 7. Admit.
- 8. Admit.
- 9. Admit.
- 10. Admit.
- 11. Admit.
- 12. Admit.
- 13. Admit.
- 14. Disputed, but immaterial. Virginia Innovation admits that of the three co-inventors of the '341 Application besides Dr. Ann Wang, Prof. Halal resided *geographically* closest to Virginia Innovation's headquarters and Dr. Ann Wang's residence. Convenience, on the other hand, is subjective. Traffic, frequency with which the parties saw each other, work schedules, and other demands, duties and factors must be considered in an analysis of convenience. *See* Doc #142 Ex. 1 at ¶¶ 10-12; Doc #142 Ex. 2 ¶¶ 5-7.

### Prosecution of the '733 and '398 Patents

- 15. Admit.
- 16. Admit.
- 17. Admit.
- 18. Admit.
- 19. Admit.
- 20. Disputed. The statement is not a statement of fact, but a legal conclusion. Further, Defendants do not cite to any expert opinion testimony in support of their conclusory statement because no such testimony exists.

- 21. Admit.
- 22. Disputed. The evidence cited by Defendants does not support Defendants' purported statement of fact.
  - 23. Admit.
  - 24. Admit.
- 25. Disputed, to the extent that the use of the word "ever" would somehow suggest that Mr. Tobin *specifically* recalls that Dr. Wang did *not* provide a copy of Rakib. Admitted to the extent that Mr. Tobin does not recall receiving this document. *See* Doc. #152 Ex. E at 169:23-25.
- 26. Disputed. Examiners of continuing applications will consider information which has been considered by the Office in the parent applications. *See, e.g.*, MPEP § 609.02. *See also* Doc. #142 at 23-24.
- 27. Disputed. The statement is not a statement of fact, but a legal conclusion. *See* Doc. #142, Ex. 32, October 8, 2010 Response (VIS-001353-77) at VIS-001376; *see also, e.g.*, Ex.'s 23 31, (February 27, 2008 Office Action (VIS-001611 21); May 9, 2008 Response (VIS-001596-609); September 17, 2008 Office Action (VIS-001542-84); December 11, 2008 Response (VIS-001552-70); March 27, 2009 Office Action (VIS-001503-15); September 25, 2009 Response (VIS-001477 99); January 4, 2010 Office Action (VIS-001450-62); May 3, 2010 Response (VIS-001423 45); and July 20, 2010 Office Action (VIS-001380-94), respectively).
  - 28. Disputed. The statement is not a statement of fact, but a legal conclusion.
- 29. Disputed as to whether "VIS's prosecution counsel would have considered the materiality of art considered by an examiner in a another [sic] case for potential disclosure in

another, even if it was parent-child related" because the statement of fact is both confusing and unsupported by the citations provided. Disputed as to whether "Dr. Wang was intimately involved with the prosecution of the asserted patents, even after retaining prosecution counsel," in as much as "intimately" is subjective. Admitted that Dr. Wang remained involved in the prosecution of the patents-in-suit.

# III. DEFENDANTS' AFFIRMATIVE DEFENSE OF INEQUITABLE CONDUCT

Defendants' suggest that since Virginia Innovation did not specifically seek to strike or summarily adjudicate Defendants' affirmative defense of inequitable conduct, the defense is not at issue in this motion. Doc. #152 at 2 n.1. This is a distinction without a difference. In discovery responses and Defendants' new counterclaim, Defendants have indicated that their affirmative defense and counterclaim are based on the same facts, which are the facts addressed in this motion. If the facts are not sufficient to support a plausible counterclaim, they are not sufficient to support an affirmative defense. <sup>1</sup>

# IV. MOTION TO STRIKE INEQUITABLE CONDUCT CLAIM

Defendants failed to comply with FED. R. CIV. P. 15. In an effort to justify this failure, Defendants rely on a footnote from this Court's prior decision in *Digital Privacy, Inc.* v. RSA Security, Inc., 199 F. Supp. 2d 457 (E.D. Va. 2002). Defendants' efforts fall short.

Virginia Innovation clearly intended for its motion to cover the affirmative defense of inequitable conduct. In the event that this Court chooses to respect Defendants' efforts to place form over function, Virginia Innovation requests leave to file a motion to dismiss or strike the affirmative defense on the ground that it is not pled with the required particularity.

In *Elite Entertainment, Inc. v. Khela Bros. Entertainment*, 227 F.R.D. 444 (E.D. Va. 2005), this Court described the standard it applies when deciding whether to allow a defendant to add additional counterclaims as of right in response to an amended complaint. *Id* at 446-47. After outlining the different approaches applied by various courts, this Court adopted the prevailing "moderate" approach. *Id*. Noting that the issue had yet to be squarely addressed, the Court set forth the standard as follows:

Yet, the moderate, and most sensible, view is that an amended response may be filed without leave only when the amended complaint changes the theory or scope of the case, and then, the breadth of the changes in the amended response must reflect the breadth of the changes in the amended complaint.

*Id.* at 446 (emphasis added). Applying this approach, this Court did not allow the defendants to add an additional counterclaim as of right when the plaintiffs did not add any new claims or expand the scope or theory of their case in their amended complaint. *Id.* at 447.

Defendants cite *Digital Privacy* for the proposition that a defendant may amend its response after the plaintiff files an amended complaint. Doc. #152 at 1-4. This general assertion goes too far and misapplies the law in this jurisdiction.<sup>2</sup> First, the defendant in *Digital Privacy* 

<sup>&</sup>lt;sup>2</sup> Defendants also cite *Hydro Eng'g, Inc. v. Petter Invs., Inc.*, 2:11-cv-00139-RJS-EJF, 2013 U.S. Dist. LEXIS 40552 (D. Utah Mar. 22, 2013) as supporting their interpretation of *Digital Privacy*. This argument is erroneous. The *Hydro Engineering* court allowed additional counterclaims as of right in response to an amended complaint that added new defendants as well as entirely new claims. *Hydro Eng'g*, 2013 U.S. Dist. LEXIS 40552 at \*14-15. This is consistent with *Elite*'s admonition that new counterclaims may only be asserted as of right when the amended complaint changes the scope of the case and that the breadth of changes in the amended response must reflect the breadth of changes in the amended complaint. Notably, the *Hydro Engineering* 

complied with Rule 15 and filed a motion for leave. *Digital Privacy*, 199 F. Supp. 2d at 459. Defendants, on the other hand, did not. Second, the *Digital Privacy* opinion was issued earlier in time than the *Elite* opinion; thus, to the extent the two opinions are inconsistent, *Elite* should control over *Digital Privacy*. The Court need not make this determination, however, because the *Elite* opinion itself cites and qualifies *Digital Privacy*.

This Court, in *Digital Privacy*, opined in a footnote that "[w]hen a plaintiff files an amended complaint that changes the scope of the case, the defendant is allowed to answer the amended complaint anew as though it were the original complaint." *Id.* at 459 n.2. Several years later in *Elite*, this Court cited the relevant portion of *Digital Privacy* while emphasizing an important qualification: "[T]he breadth of the changes in the amended response must reflect the breadth of the changes in the amended complaint." *Elite*, 227 F.R.D. at 446 (citing *Digital Privacy*, 199 F. Supp. 2d at 459 n.2). The Court viewed the two opinions as consistent with one

court cited to *Elite* twice in support of its decision. *Id.* at \*10-11 (citing *Elite*, 227 F.R.D. at 446-47).

<sup>&</sup>lt;sup>3</sup> As this Court noted in *Elite*, at the time of the opinion no appellate court had squarely addressed the issue. *Elite*, 227 F.R.D. at 446.

<sup>&</sup>lt;sup>4</sup> The requirement that one party's amendments match the "breadth of changes" of another's truly cannot mean that if one party adds a claim that does *not* change the theory of the case, that the other is free to add whatever it pleases. "If every amendment, no matter how minor or substantive, allowed defendants to assert counterclaims or defenses as of right, claims that would otherwise be barred or precluded could be revived without cause. This would deprive the Court of its ability to effectively manage the litigation." *EEOC v. Morgan Stanley & Co., Inc.*, 211 F.R.D. 225, 227 (S.D.N.Y. 2002).

another, meaning that the standard described in *Digital Privacy* implicitly included the qualifications subsequently expressed in *Elite*. At least one court has recognized the equivalence of the standards described in the two opinions. *See Turbomin AB v. Base-X, Inc.*, No. 6:09-CV-00007, 2009 U.S. Dist. LEXIS 80373, at \*6-7 (W.D. Va. Sept. 2, 2009) (discussing *Digital Privacy* and *Elite* together without noting any distinction between the two).

Applying the *Elite* standard to the present case, it is clear that the changes in Virginia Innovation's amended complaint do not come close to "changing the scope" of the case to allow Defendants to assert an entirely new counterclaim in their response. The only change of any significance in Virginia Innovation's amended complaint was to add an allegation of willful infringement – an amendment that merely allows for additional damages but does not change the nature of Virginia Innovation's infringement case against Defendants.<sup>5</sup>

Defendants could have asserted their counterclaim for inequitable conduct in their response to Virginia Innovation's original complaint months ago. *See Turbomin*, 2009 U.S. Dist. LEXIS at \*7-8 (disallowing defendants from asserting new counterclaims in response to plaintiffs' conspiracy claims in their amended complaint, where defendants were on notice that the conspiracy claims would be at issue in the litigation). They chose not to. Defendants should not be permitted to now bring this claim so late in the case, and to the prejudice of Virginia Innovation, without leave from the Court.

Finally, even if the Court were to find that Virginia Innovation's amendment "changed the scope" of the case within the meaning of *Elite*, Defendants' new counterclaim fails the "breadth" test of *Elite* and is thus impermissible. As previously discussed, the *Elite* standard

<sup>&</sup>lt;sup>5</sup> All other changes significantly narrowed the scope of this matter. *See* Doc. #142 at 2 (SUF No. 4); *Compare* Compl. (Doc. #1) with First Am. Compl. (Doc. #121).

requires that the breadth of any amendments as of right to an amended response must reflect the breadth of any changes in the amended complaint. *Elite*, 227 F.R.D. at 446. Virginia Innovation's amended complaint merely added a willful infringement allegation. This is an enhanced damages measure. In contrast, Defendants' amended response added an inequitable conduct counterclaim that interjects allegations of fraud and significantly alters the scope of the litigation if allowed. Federal case law is replete with examples of cases where courts disallow additional counterclaims that greatly exceed the breadth and scope of amendments to the plaintiffs' complaint. *See, e.g., Unigene Laboratories, Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1359-60 (Fed. Cir. 2011) (upholding the disallowance of additional counterclaims in response to plaintiffs' mere renaming of a patent post-reexamination); *American Honda Motor Co. v. V.M. Paolozzi Imports, Inc.*, 7:10-CV-955 (FJS/ATB), 2013 U.S. Dist. LEXIS 41852, at \*12-13 (N.D.N.Y. Mar. 26, 2013) (disallowing counterclaims that added new issues to the case that were not within the scope of the amended complaint); *Regions Bank v. Commonwealth Land Title Insurance Co.*, No. 11-23257-CIV-SCOLA, 2012 U.S. Dist. LEXIS 158982 (S.D. Fla. Nov. 5, 2012) (disallowing the assertion of additional defenses when the amended complaint merely

Indeed, while Virginia Innovation's amendment simply allows for an additional damages remedy, Defendants' amendment unleashes the "atomic bomb" of patent law. *See Therasense*, 649 F.3d at 1288. This claim could potentially render an entire patent unenforceable, render related patents unenforceable, form the basis for an exceptional case and a potential award of attorneys' fees, or prove the crime or fraud exception to the attorney client privilege. *Id.* at 1288-89. The Federal Circuit, as explained throughout the opening brief and this rebuttal, has expressed disfavor towards this extreme remedy and has sharply limited the situations where it can be applied. *See id.* 

changed the stated year of issuance of an insurance policy endorsement). Because Defendants' new counterclaim greatly expands the issues involved in this case, Defendants' new counterclaim also fails the "breadth" portion of the *Elite* standard. As a result, Virginia Innovations' motion should be granted and Defendants' Thirteenth Counterclaim should be struck for failure to comply with Rule 15.<sup>7</sup>

# V. MOTION FOR SUMMARY JUDGMENT ON INEQUITABLE CONDUCT

## A. Summary Judgment.

A district court "shall grant" summary judgment in favor of a movant if such party "shows that there is <u>no genuine dispute as to any material fact</u> and the movant is entitled to judgment as a matter of law. *Morpho Detection, Inc. v. Smiths Detection, Inc.*, 2012 WL 5879851 \*1 (E.D. Va. Nov. 21, 2012) (quoting FED. R. CIV. P. 56(a)). The non-moving party may not rest upon the <u>mere allegations of the pleadings</u>, but instead must set forth specific facts in the form of exhibits and sworn statements illustrating a genuine issue for trial. *Id.* at \*2 (emphasis added). Then the Judge must determine whether there is a <u>genuine</u> issue for trial. *Id.* (emphasis added). After viewing the evidence in the non-movant's favor, "the judge must ask himself ... <u>whether a fair-minded jury could return a verdict for the [non-movant]</u> on the evidence presented." *Id.* If the "non-movant's evidence 'is <u>merely colorable</u>, or is not significantly probative, summary judgment may be granted." *Id.* 

Defendants have failed to set forth specific facts illustrating a genuine issue for trial.

Defendants, instead, are resting upon the mere allegations of their pleadings. Defendants'

<sup>&</sup>lt;sup>7</sup> Any request for leave to amend should not be allowed. Allowing Defendants to interject new issues into the case so close to the close of discovery and trial would be prejudicial to Virginia Innovation for the reasons stated in Virginia Innovation's Opening Brief. Doc. #142 at 13-15.

speculative theories are not enough for a fair-minded jury to return a verdict in their favor on the issue of inequitable conduct, and summary judgment should therefore be granted.

#### B. Inequitable Conduct.

Defendants' counterclaim is precisely the type of claim that led the Federal Circuit to liken the defense of inequitable conduct to both a plague and a cancer. See supra n.2; see also, Therasense, 649 F.3d at 1293 ("...the way inequitable conduct has metastasized."). In arriving at this conclusion, the Federal Circuit summarized certain prior cases, including: Keystone Driller Co. v. General Excavator Co., 290 U.S. 240 (1933), Hazel-Atlas Glass Co. v. Hartford-Empire Co., 322 U.S. 238 (1944), overruled on other grounds by Standard Oil Co. v. United States, 429 U.S. 17 (1976), and Precision Instruments Manufacturing Co. v. Automotive Maintenance Machinery Co., 324 U.S. 806 (1945).

In *Keystone*, the defendants discovered and introduced evidence of a corrupt transaction between a "patentee [who had] paid [a] prior user to sign a false affidavit stating that his use was an abandoned experiment and bought his agreement to keep secret the details of the prior use and to suppress evidence." *Therasense*, 649 F.3d at 1285-86 (citing *Keystone*, 290 U.S. at 243-44 ("...defendants ... were able to compel the plaintiff to furnish the details of the corrupt transaction.")).

In *Hazel-Atlas*, the defendant discovered and introduced evidence that, when faced with apparently insurmountable Patent Office opposition, the patentee's attorneys wrote an article describing the invention at issue as a remarkable advance in the art, had a well-known expert sign it as his own and publish it in a trade journal to overcome the opposition, and subsequently went to great lengths to conceal the false authorship, including paying off the expert. *Therasense*, 649 F.3d at 1286 (citing *Hazel-Atlas*, U.S. 322 U.S. 238-43 ("Indisputable proof of

the foregoing facts was ... fully brought to light ... by correspondence files, expense accounts, and testimony...")).

Finally, in *Precision*, the petitioners (patent defendants) discovered and introduced evidence of the respondent (patent plaintiff) having entered into a private settlement agreement with the patentee that gave the respondent (patent plaintiff) the rights to patentee's application and suppressed evidence of the patentee's perjury. *Therasense*, 649 F.3d at 1286-87 (citing *Precision*, 324 U.S. at 808-818 ("[the patentee]...admitted that '[his] testimony [was] false, and the whole case [was] false.")). Each of these cases involved clear and convincing *evidence* of an egregious intent to deceive the Patent Office. In the present suit, there is simply no such evidence. There is only Defendants' unsubstantiated speculation. This cannot form the basis for a claim of inequitable conduct.

As explained in *Therasense*, it was the expansion of the scope of inequitable conduct (from only egregious and affirmative acts of misconduct intended to deceive the PTO and the courts to the mere nondisclosure of information to the PTO) and its remedy (from dismissal of the suit to the unenforceability of the entire patent) that led to the requirement of finding both intent to deceive and materiality. 649 F.3d at 1287 (citing *Star Scientific Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1365 (Fed. Cir. 2008). To prevail on the defense of inequitable conduct the accused infringer must prove both elements – intent and materiality – by clear and convincing evidence. *Id.* To address the weakening of the showing needed to establish inequitable conduct, and the resultant host of ills that had accompanied the overuse of the defense as a litigation strategy, the *Therasense* court tightened the standards for finding both intent and materiality. *Id.* at 1288-90.

#### 1. The Element of Intent

To prevail on a claim of inequitable conduct, the accused infringer must prove that the patentee acted with the specific intent to deceive the PTO. See id. at 1290 (citing Star, 537 F.3d at 1366). While intent may be inferred from indirect and circumstantial evidence, "to meet the clear and convincing evidence standard, the specific intent to deceive must be 'the single most reasonable inference able to be drawn from the evidence." Id. (emphasis added). "Indeed, the evidence 'must be sufficient to require a finding of deceitful intent in light of all the circumstances." Id. (quoting Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 873 (Fed. Cir. 1988) (emphasis not in original, but added by the Therasense Court). "[W]hen there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found." Id. (citing Scanner Techs. Corp. v. ICOS Vision Sys. Corp., 528 F.3d 1365, 1376 (Fed. Cir. 2008) ("Whenever evidence proffered to show either materiality or intent is susceptible of multiple reasonable inferences, a district court clearly errs in overlooking one inference in favor of another equally reasonable inference.")) (emphasis added). Finally, "the 'patentee need not offer any good faith explanation unless the accused infringer first ... prove[s] a threshold level of intent to deceive by clear and convincing evidence.' ... The absence of a good faith explanation for withholding a material reference does not, by itself, prove intent to deceive." Id. at 1291 (quoting *Star*, 537 F.3d at 1368).

#### 2. The Element of Materiality

Inequitable conduct requires "but-for" materiality. *Therasense*, 649 F.3d at 1291. Prior art that an applicant has allegedly failed to disclose is but-for material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art. *Id.* "The court must determine whether the PTO would have allowed the claim if it had been aware of the undisclosed

reference." *Id.* "Because inequitable conduct renders an entire patent (or even patent family) unenforceable, as a general rule, this doctrine should only be applied in instances where the patentee's misconduct resulted in the unfair benefit of receiving an unwarranted claim." *Id.* at 1292. Finally, while but-for materiality must generally be proved to satisfy the materiality prong of inequitable conduct, there is a recognized exception in cases of "affirmative egregious misconduct," which "incorporates the elements of the [*Keystone*, *Hazel-Atlas*, and *Precision* cases], which dealt with 'deliberately planned and carefully executed scheme[s]' to defraud the PTO and the courts." *Id.* at 1292 (quoting *Hazel-Atlas*, 322 U.S. at 245). Non-disclosure of prior art references, however, does not constitute affirmative egregious misconduct, so claims of inequitable conduct based thereon require but-for materiality. *Id.* at 1292-93.

# C. Professor Halal's Authorized Signature Does Not Constitute Inequitable Conduct.

Defendants attempt to manufacture an issue of fact where none exists. The relevant facts are undisputed.

- Prof. Halal authorized Dr. Ann Wang to sign his name in conjunction with the filing of the '492 patent. Ex. 41, Deposition of Prof. Halal at 103:3-8.
- Dr. Ann Wang signed Prof. Halal's name pursuant to his authorization. Doc. #142 Ex. 1 at ¶ 10.
- At her deposition, Dr. Ann Wang did not remember signing Prof. Halal's name eight years earlier. Doc #152 Ex. C at 180:20-24.
- After reviewing his deposition testimony, Dr. Ann Wang remembered signing Prof. Halal's name. See Doc. #142 Ex. 1 at ¶ 10.
- Dr. Ann Wang was not represented by counsel when she signed Prof. Halal's name. Id. at  $\P$  7.
- At the time she signed Prof. Halal's name, Dr. Ann Wang was not aware that original signatures were required. Id. at  $\P$  9.

The above undisputed facts cannot form the basis for an inequitable conduct claim under the appropriate legal framework. Further, contrary to Defendants' arguments, these facts are not contradictory. They support the single-most reasonable inference to be drawn from the evidence – that Dr. Ann Wang, without intent to deceive anyone, signed Prof. Halal's name pursuant to his authorization as a matter of convenience.

When asked at her deposition how, eight years earlier, she obtained the signatures of the co-inventors for the declaration, she explained that she did not remember:

Q: Okay. Did you do it by mail or do it in person? Can you explain to me how you obtained the signatures of the coinventors on the declaration?

A: I don't remember.

Q: Okay. Do you remember how Mr. Halal's signature was obtained?

A: Sorry, I don't.

Doc #152 Ex. C at 178:7-12 (emphasis added). And when asked at her deposition whether the signatures identified in Defendants' Response looked like different signatures, she said that she *believed* they were signed by the same person:

Q: Would you agree with me that those look like different signatures?

A: No, I don't.

Q: You think that those are – those signatures are – look like they are written by the same person?

A: I believe those signatures [sic] was signed by the same person.

*Id.* at 180:6-12 (emphasis added). The transcript further reflects that her responses were given to the best of her knowledge:

Q: But your testimony here today is that you understood that Dr. Halal signed personally both Exhibit 18 on the declaration page and Exhibit 21, to the best of your knowledge?

A: Yes, sir.

Id. at 180:20-24 (emphasis added).

Prof. Halal's testimony is not inconsistent. He simply remembered more than Dr. Wang:

- Q: Did you authorize Dr. Ann Wang to sign your name on Exhibit 18?
- A: Yes.
- Q: Do you have any reason to believe that you didn't authorize her to sign your name?
- A: No.

Ex. 41, Deposition of Dr. William Halal at 103:3-8. Based on this uncontroverted evidence, Defendants claim for inequitable conduct must fail.

# 1. Defendants Cannot Establish Intent by Clear and Convincing Evidence.

Dr. Wang signed Prof. Halal's name by permission. Doc. #142 Ex. 1 at ¶ 10. There is simply no evidence – apart from Defendants' unsupported conspiracy theory – that either party had any intent to deceive the PTO. The evidence that Defendants identify is not sufficient to "require a finding of deceitful intent." Therasense, 649 F.3d at 1290 (quoting Kingsdown, 863 F.2d at 873) (emphasis added by Therasense Court). There is simply no evidence whatsoever that Dr. Wang, Prof. Halal, or any other party involved in the prosecution of the patents-in-suit intended to deceive the patent office; nor can any such inference reasonably be made.

The non-movant Defendants may be afforded the benefit of all reasonable inferences, but they certainly are not afforded the "inference" that all witnesses have committed perjury, especially when there is no evidence to support such a theory, and certainly not by the required clear and convincing standard. No reasonable jury could find inequitable conduct based on the facts in this matter. As a result, summary judgment on the issue of inequitable conduct based on Prof. Halal's signature is required.

# 2. Defendants Cannot Establish Materiality by Clear and Convincing Evidence.

Defendants' attempt to employ the Therasense exception to the but-for materiality requirement also goes too far. This exception was created for "cases of affirmative egregious misconduct," not merely, as Defendants state, for situations where a "patent applicant submits an unmistakably false affidavit." 649 F.3d at 1292; see also Doc. #152 at 13 (incorrectly citing 649 F.3d at 1285). In fact, the Therasense court cites the early unclean hands cases of Keystone, Hazel-Atlas, and Precision - all of which dealt with 'deliberately planned and carefully executed scheme[s]' to defraud the PTO and the courts - when creating the exception. Id. at 1292 (quoting Hazel-Atlas, 322 U.S. at 245). And the "unmistakably false affidavit" cited by Defendants (and also cited by the Therasense court in addition to the unclean hands cases when creating the exception) was far more egregious than the authorized signature that is at issue in the present case. See Rohm & Haas Co. v. Crystal Chem. Co., 722 F.2d 1556, 1570-71 (Fed. Cir. 1983) ("summarizing well-documented and well-evidenced misrepresentations and omissions in affidavits whose purpose was to overcome prior art rejections where the patentee did not deny the falsification or withholding of evidence"). The affirmative egregious misconduct exception was not meant to be stretched as far as to cover Defendants' speculative conspiracy theory, and should not be applied here.

Setting this aside, it is undisputed that Prof. Halal's signature was signed by permission. See Doc. #142 Ex. 1 at ¶ 10; Ex. 41, Deposition of Dr. William Halal at 103:3-8. The submission of the declaration did not result in the unfair benefit of receiving any unwarranted claims. Defendants cannot meet the but-for materiality standard required by *Therasense*. There is simply no evidence that the claims would have been denied but-for the signature on the declaration. If Prof. Halal had made the trip and signed the declaration himself, instead of

authorizing Dr. Wang to sign on his behalf, the same result would have occurred. The same patent claims would have issued. The signature by permission was not material because it did not change the outcome of the patent prosecution. The '492 patent and all other patents-in-suit still would have issued. This is another reason why summary judgment in favor of Virginia Innovation on the issue of inequitable conduct based on Prof. Halal's signature is required.

# D. The Patentees' Alleged Failure to Cite Purported Prior Art Cited in the '492 Patent in Conjunction with the Prosecution of the '733 and '398 Patents Does Not Constitute Inequitable Conduct.

1. There was no duty to disclose the Rakib reference.

There can be no intent to deceive based on the failure to disclose a reference that was *not* required to be disclosed. *See* Doc. #142 at 22-24. Defendants have chosen to simply ignore the cases cited by Virginia Innovation in support of the proposition that, "[i]n view of § 609, the Federal Circuit has stated that it cannot be inequitable conduct for an applicant not to resubmit, in a continuing application, the information that was cited in the parent application." *Id.* It is undisputed that the '492 patent is the parent of the '733 and '398 patents, and that all of the references Defendants rely upon in support of their argument were cited by the examiner during the prosecution of the '492 patent. *See, e.g.*, Doc. #142, Ex. 20. Defendants' only argument is that because of the timing and the relationship between the patents and applications, there was somehow a duty to disclose. Doc. #152 at 19-21. This argument is directly contradicted by Federal Circuit precedent and must fail.

As an initial matter, it should be noted that "[t]he term 'parent' is applied to an earlier application of an inventor disclosing a given invention." MPEP § 201.4. By definition, a grand-parent application is also a parent application. For this reason, Defendants' argument that

applicants are not excused from disclosing material cited in grand-parent applications simply because they are not the application immediately preceding the one at issue, must fail.

Defendants rely heavily on Ormco Corp. v. Align Tech., Inc., CV-03-16 CAS (Anx) (C.D. Cal. Feb. 23, 2009). This reliance is misplaced. Defendants fail to inform the Court that the issue in Ormco was a failure to cite a declaration, not a reference that was cited in a prior related application. See Ormco Corp. v. Align Tech., Inc., CV-03-16 CAS (Anx) (C.D. Cal. Feb. 23, 2009) at 14-21. Unlike section 609.02 of the MPEP, section 201.06(c) states that declarations are not automatically considered in related applications. Compare MPEP § 609.02 with MPEP § 201.06(c). Defendants further mislead the Court by claiming that the Ormco court "held that the 'examiner's responsibility under M.P.E.P. §609.02 extends only to the parent application, i.e., the application immediately preceding the application being examined." Doc #152 at 20 (quoting Ormco, 2009 WL 466070 at \*9-10). There was no such holding. The quoted language is from a declaration submitted by one of the parties in support of its argument. See Ormco Corp. v. Align Tech., Inc., CV-03-16 CAS (Anx) (C.D. Cal. Feb. 23, 2009) at 16. The Ormco Court, on the other hand, found that the other party had failed to demonstrate that it was reasonable to assume the material at issue was before the examiner. Id. at 17. In the present suit, it would not have been unreasonable to assume that a reference that was cited against a parent, was before the examiner. Setting this aside, this is not the test for inequitable conduct. There is no clear and convincing evidence that the patentees, or their prosecution counsel, sought to deceive the PTO by withholding a reference that was cited against a parent. This is because the record is entirely devoid of any evidence of intent to deceive.

Finally, to permit Defendant's strained reading of *Ormco Corp. v. Align Tech., Inc.*, 2009 WL 466070 (C.D. Cal. Feb. 23, 2009) to stand for the proposition that all material cited in grand-

parent applications must be cited anew in the prosecution of the grandchild would fly in the face of *Therasense*, which clearly stated that it sought to reduce the "flood of information [that] strains the agency's examining resources and directly contributes to the backlog." *See* 649 F.3d at 1290. For all of these reasons, summary judgment on the issue of inequitable conduct based on the patentee's alleged failure to cite purported prior art is required.

# 2. Defendants Cannot Establish Intent by Clear and Convincing Evidence.

In addition to (1) the lack of a duty to disclose, (2) the Federal Circuit's having stated that it cannot be inequitable conduct for an applicant not to resubmit, in a continuing application, the information that was cited or submitted in the parent application, and (3) Defendants' failure to address, much less distinguish, the cases cited in support thereof, *see* Doc. #142 at p. 23, there is simply no evidence of intent to deceive.

Again trying to manufacture issues of fact, Defendants state in a footnote that:

[i]t is also notable that <u>Dr. Wang declares that she was</u> both unfamiliar with patent requirements like the need for actual signatures on a Declaration of Inventorship, but <u>so familiar the [sic] requirements to disclose art in subsequent applications that she did not even give it to her prosecution counsel.</u> (Doc. #142 Ex. 1 at ¶¶ 9, 17); Ex. E at 168:25-170:11.

Doc. #152 at 29, n. 13 (emphasis added). First, there is no support in any of Defendants' citations for the idea that Dr. Wang did not give the reference at issue to her prosecution counsel. Dr. Wang's declaration at ¶¶ 9 and 17 merely states her awareness and understanding of the PTO requirements regarding signatures and the disclosure of references:

- 9. At the time I filed the '341 application, I was not aware that the original signatures were required on the declaration of inventorship.
- 17. During the prosecution of the '733 and '398 patents it was my understanding that there was no duty to disclose references in the

'733 and '398 patents that were previously disclosed in the '492 patent.

Doc. #142 Ex. 1 at ¶¶ 9, 17. Mr. Tobin's testimony merely establishes that he has no recollection of the reference at issue:

- Q: Do you recall receiving this document from your client?
- A: No.
- Q: Did Dr. Wang ask you to submit this document to the PTO?
- A: I don't recall.
- Q: Did you consider whether this document was material to patentability of the '733 patent?
- A: Î don't recall any consideration of this document.8

<sup>&</sup>lt;sup>8</sup> Given the large number of matters that Mr. Tobin handles in his full-time practice as a patent prosecutor, it is unsurprising that he would not remember a single reference from nearly a decade earlier:

Q: [...] On average, at any given time, what is the number of open prosecution matters that handle?

A: It's in the four digits, so *over a thousand*. I manage large client at the – the firm. The – even just that one client has over 5,000 matters, some of which are closed and many of which are still open. So I could pretty safely guess that it's thousands –

Q: Okay.

A: -- of cases.

Q: And on average, what would you say the number of filings with the USPTO monthly that you – you do is?

A: We do – sometimes we have days where we'll do 10, 15 filings; other days, we'll have five; you know, some days, they're more busy than others in terms of filings. I would guess we average between five and 10 a day, so 30 to 50 a week; 200 per month, you know, at least.

Ex. 42, Deposition of Christopher Tobin at 178:13-179:10 (emphasis added).

Doc. #152 at Ex. E 169:23-170:11. In fact, contrary to Defendants' unsupported assertion that Dr. Wang did not share the reference at issue with Mr. Tobin, her deposition testimony reflects that she, in fact, did:

- Q: Do you recall whether it was the applicant that disclosed the Rakib patent to the Patent Office or whether it was a reference that was located and cited for the first time by the examiner?
- A: I believe that as soon as I read this art, I give it to my prosecutor.
- Q: Okay. Why did you do that?
- A: Because he was responsible for communicating with the Patent Office.
- Q: [...] Did you believe when you gave a copy of the Rakib patent to your patent prosecution attorney, that the Rakib reference was related to the inventions that you and your co-inventors were seeking patents on as evidenced by the six patents being asserted against Samsung in this case?
- A: I give this art as soon as I realized this art to our patent prosecutor –
- Q: Yeah.
- A: -- is to let him decide what to do with this art if the content is related enough to the patent application.

Doc. #152 at Ex. C 284:23-286:18 (emphasis added); see also Doc. #152 at 8 (SUF No. 23).

The most plausible reason for the references not being cited to the PTO is the only reason supported by the evidence – there was not duty to disclose. There is simply no evidence – apart from Defendants' unsupported conspiracy theory – that either party had any intent to deceive the PTO. There certainly is no evidence sufficient to "require a finding of deceitful intent." Therasense, 649 F.3d at 1290 (quoting Kingsdown, 863 F.2d at 873) (emphasis not in original, but added by the Therasense Court).

For these reasons alone, summary judgment on the issue of inequitable conduct based on the patentee's alleged failure to cite purported prior art is required.

## 3. Defendants Cannot Establish Materiality by Clear and Convincing Evidence.

Defendants also cannot satisfy the but-for materiality test of *Therasense*. Rakib was never relied on by the PTO as an anticipatory reference. *See, e.g.*, Doc. #142, Ex.'s 23, 25, 27, 29, and 31, (February 27, 2008 Office Action (VIS-001611 – 21); September 17, 2008 Office Action (VIS-001542-84); March 27, 2009 Office Action (VIS-001503-15); January 4, 2010 Office Action (VIS-001450-62); and July 20, 2010 Office Action (VIS-001380-94), respectively). Rakib was relied on in support of an obviousness objection, and then it was only relied on as disclosing a personal digital assistant, an analog display, and a television set that implemented one or more of the following standards: NTSC, PAL, or SECAM. *See, e.g.*, Doc #142, Ex.'s 23, 25, 27, 29, and 31.

Setting this aside, five times the patentees argued, and the examiner agreed, that: "There [was] no disclosure of any kind in Rakib of receiving and converting a video signal for display on an alternative display terminal, even in a general sense." *See* Doc. #142, Ex. 32, October 8, 2010 Response (VIS-001353-77) at VIS-001376; *see also, e.g.*, Ex.'s 24, 26, 28, and 30 (May 9, 2008 Response (VIS-001596-609); December 11, 2008 Response (VIS-001552-70); September 25, 2009 Response (VIS-001477 – 99); May 3, 2010 Response (VIS-001423 – 45), respectively). The patentees argued, and the examiner agreed, that the rejections were improper. *See id.*; *see also* Doc #142, Ex. 15. The patentees never amended or conceded a single claim against which Rakib was cited. *See, e.g.*, Doc. #142, Ex.'s 24, 26, 28, 30, and 32. Further, a review of Rakib confirms that it could not form that basis for a rejection of the claims in the '733 or '398 patents. *See* U.S. Patent No. 6,970,127 to Rakib.

For these reasons alone, summary judgment on the issue of inequitable conduct based on the patentee's alleged failure to cite purported prior art is appropriate.

#### VI. CONCLUSION

For the reasons set forth above, and in Virginia Innovations opening motion, Defendants' counterclaim should be struck and any request for leave to amend should be denied.

In the alternative, this Court should grant Virginia Innovation's motion for summary judgment. Defendants have not, and cannot, identify *any* evidence to support a finding of intent to deceive the PTO, much less enough evidence to support such a finding by clear and convincing evidence. Further, Defendants have not, and cannot, demonstrate that the alleged activities meet the "but-for" materiality requirement. As a result, allowing Defendants to present their far-fetched tale of forgery and fraud at trial would introduce an unnecessary risk that the jury will be inappropriately tainted by these allegations in the absence of anything that even remotely approaches a clear and convincing threshold. For this reason, and for the many reasons catalogued in *Therasense*, summary judgment on this issue is not only appropriate, but is required.

DATED: September 4, 2013

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## **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on all Defendants through their respective counsel of record via the Court's CM/ECF system on September 4, 2013.

/s/ W. Ryan Snow W. Ryan Snow

Electronic Acknowledgement Receipt					
EFS ID:	17301749				
Application Number:	12929408				
International Application Number:					
Confirmation Number:	2646				
Title of Invention:	METHODS, SYSTEMS AND APPARATUS FOR DISPLAYING THE MULTIMEDIA INFORMATION FROM WIRELESS COMMUNICATION NETWORKS				
First Named Inventor/Applicant Name:	Tiejun Ronald Wang				
Customer Number:	23353				
Filer:	David M. Quinlan				
Filer Authorized By:					
Attorney Docket Number:	WAN-0001/CON				
Receipt Date:	04-NOV-2013				
Filing Date:	21-JAN-2011				
Time Stamp:	11:54:08				
Application Type:	Utility under 35 USC 111(a)				

# **Payment information:**

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# File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	Submission 711_F.pdf	12155889	no	205
Miscellaneous	Miscellaneous incoming Eccler	3481113316117 1 1 <u>_</u> 1 .pai	37bab2bdcc1a25f4fb89cdd2882a69e00eb cdde8		
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#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



23353

# United States Patent and Trademark Office

United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS PO. Box 1450 Alexandria, Virgina 22313-1450 www.uspto.gov UNITED STATES DEPARTMENT OF COMMERCE

APPLICATION NUMBER 12/929,408

WASHINGTON, DC 20036

LION BUILDING

**RADER FISHMAN & GRAUER PLLC** 

1233 20TH STREET N.W., SUITE 501

FILING OR 371(C) DATE 01/21/2011

FIRST NAMED APPLICANT Tiejun Ronald Wang

ATTY. DOCKET NO./TITLE WAN-0001/CON

**CONFIRMATION NO. 2646** 

**POWER OF ATTORNEY NOTICE** 

Date Mailed: 11/06/2013

#### NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 11/01/2013.

• The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/dtverno	on/				
 			 	(==1)	

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMI United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS PO. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov UNITED STATES DEPARTMENT OF COMMERCE

APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT ATTY. DOCKET NO./TITLE 12/929,408 01/21/2011 Tiejun Ronald Wang 14800.1001B

25099 DAVID M QUINLAN, PC 32 NASSAU STREET SUITE 300 PRINCETON, NJ 08542

**CONFIRMATION NO. 2646** POA ACCEPTANCE LETTER



Date Mailed: 11/06/2013

#### NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 11/01/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/dtvernon/				

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Paper 15 Entered: March 6, 2014

#### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.
Petitioner

v.

VIRGINIA INNOVATION SCIENCES, INC.
Patent Owner

Case IPR2013-00573 Patent 8,050,711

Before MICHAEL W. KIM, BRIAN J. McNAMARA, and MATTHEW R. CLEMENTS, *Administrative Patent Judges*.

CLEMENTS, Administrative Patent Judge.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

#### I. INTRODUCTION

Samsung Electronics Co., Ltd. ("Petitioner") filed a corrected petition requesting *inter partes* review of claims 16 and 18 (the "challenged claims") of U.S. Patent No. 8,050,711 (Ex. 1001, "the '711 patent"). Paper 5 ("Pet."). Virginia Innovation Sciences, Inc. ("Patent Owner") filed a preliminary response. Paper 12 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314.

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides as follows:

THRESHOLD.—The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Upon consideration of the petition and the preliminary response, we determine that the information presented by Petitioner does not establish that there is a reasonable likelihood that Petitioner would prevail in showing unpatentability of the challenged claims of the '711 patent. Accordingly, the petition is denied.

# A. Related Proceedings

Petitioner and Patent Owner indicate that the '711 patent was asserted against Petitioner in a co-pending case filed on October 4, 2012, and captioned Virginia Innovation Sciences, Inc. v. Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.; Samsung Telecommunications America LLC, Case No. 2:12-cv-00548-MSD-DEM (E.D. Va.). Pet. 1;

Case IPR2013-00573 Patent 8,050,711

Paper 7 at 2. Petitioner also has filed four petitions for *inter partes* review of related patents: IPR2013-00569 (U.S. Patent No. 8,145,268); IPR2013-00570 (U.S. Patent No. 8,224,381), IPR2013-00571 (U.S. Patent No. 8,135,398), and IPR2013-00572 (U.S. Patent No. 7,899,492). *Id*.

#### B. The '711 Patent

The '711 patent relates to mobile terminal signal conversion for external display. Ex. 1001, col. 1, ll. 22-24. According to the '711 patent, multimedia information, such as television, 3-D images, network games, and video phone calls are transmitted from various service providers and received for display on a screen of a mobile terminal. *Id.* at ll. 39-44. However, the limited size and capability of the mobile terminal screen may diminish user enjoyment of high rate data flow applications. *Id.* at ll. 50-53; col. 2, ll. 4-7.

To address these issues, the '711 patent discloses converting a multimedia signal destined for the mobile terminal and providing it to an external display system so that corresponding video and/or audio may be reproduced using the external display system. *Id.* at col. 2, Il. 12-16. Figure 1 of the '711 patent is reproduced below:

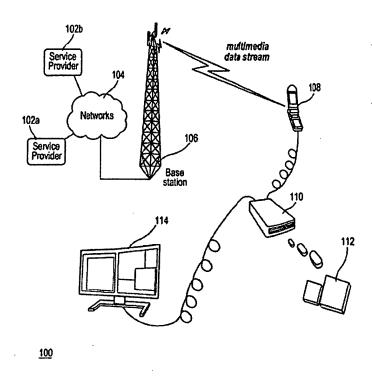


FIG. 1

Figure 1 depicts a schematic diagram illustrating an example of a system in which mobile terminal signal conversion may reside. As shown in Figure 1, service providers 102a and 102b deliver multimedia information through network 104 to base station 106, which transmits the multimedia information, among other things, to cellular phone 108. *Id.* at col. 3, ll. 32-37. External display system 114 may be digital (e.g., HDTV, LCD, or plasma) or analog (NTSC, PAL, SECAM, SVGA, VGA), and does not have the size constraints of a display screen on cellular phone 108. *Id.* at ll. 43-48. Mobile terminal signal conversion module ("MTSCM") 112 resides within separate housing 110 outside of cellular phone 108. *Id.* at ll. 52-54. Cellular phone 108 is connected to MTSCM 110 by a wired or wireless connection. *Id.* at col. 4, ll. 1-14. A multimedia signal transmitted to

cellular phone 108 may include a video signal intended for reproduction by cellular phone 108 using the display screen of cellular phone 108. *Id.* at col. 3, ll. 59-64. MTSCM 112 processes the video signal to provide a converted video signal that has a display format and/or signal power level appropriate for external display terminal 114. *Id.* at col. 4, ll. 17-20. Following signal conversion, MTSCM 112 provides the converted video signal to external display terminal 114 for display. *Id.* at ll. 30-34.

Figure 3 of the '711 patent is reproduced below:

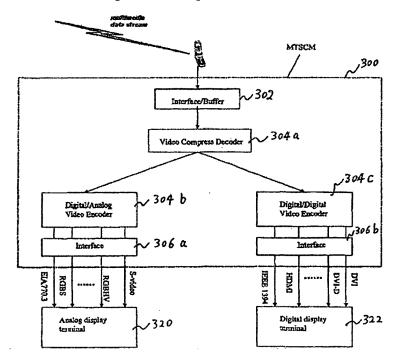


FIG. 3

Figure 3 is a block diagram illustrating an example of the MTSCM. Interface/buffer module 302 provides, for example, adequate buffering and processing rate to provide real-time audio and video. *Id.* at col. 5, ll. 57-65. Video Compress Decoder 304a receives a multimedia signal, typically in a

compressed format (e.g., MPEG-1, MPEG-2, MPEG-4), and outputs a decompressed digital multimedia signal to Digital/Analog Video Encoder ("DAVE") 304b and/or Digital/Digital Video Encoder ("DDVE") 304c. *Id.* at col. 6, ll. 6-17 and 26-36. DAVE 304b and DDVE 304c receive the decompressed multimedia signal and convert the signal to the display format and signal power level required for the external display terminals with which they interface. *Id.* at ll. 32-36. Exemplary signal formats for an analog display terminal include S-video, RGBHV, RGBS, and EIA770.3. *Id.* at ll. 37-39. Exemplary signal formats for a digital display terminal include DVI, DVI-D, HDMI, and IEEE1394. *Id.* at ll. 39-40. The signals provided by DAVE 304b and DDVE 304c are provided to external display terminal 114 through conventional interfaces 306a and 306b. *Id.* at ll. 40-43.

# C. Exemplary Claim

Of the challenged claims, neither is independent. Both claims depend from independent claim 15, reproduced below:

15. An apparatus for processing signals to accommodate reproduction by an alternative display terminal, the apparatus comprising:

an interface, which receives a video signal appropriate for displaying a video content on a mobile terminal, the video signal being received from a cellular network communication that is sent to the mobile terminal and then received by the interface;

a signal conversion hardware component, in operative communication with the interface, which processes the video signal to produce a converted signal for use by the alternative display terminal, wherein processing by the signal conversion hardware component includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal; and

a device interface, in operative communication with the signal conversion hardware component, which provides the converted video signal to the alternative display terminal to accommodate displaying the video content by the alternative display terminal.

# D. References Relied Upon

Petitioner relies upon the following references:

Palin	US 7,580,005	Aug. 25, 2009	Ex. 1002
Hayakawa	US 2003/0137609	July 24, 2003	Ex. 1003

# E. The Asserted Grounds of Unpatentability

Petitioner argues that the challenged claims are unpatentable based upon the following grounds:

Reference[s]	Basis	Claims challenged
Palin	§ 102	16
Palin	§ 103	16
Palin & Hayakawa	§ 103	18

#### II. ANALYSIS

#### A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the

Case IPR2013-00573 Patent 8,050,711

specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). Also, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

## 1. "display terminal"

Independent claim 15 recites a "display terminal." Petitioner proposes that "display terminal" be construed as "device for video display." Pet. 4 (citing Ex. 1001, col. 3, ll. 24-27 and 43-48; col. 4, ll. 30-34). Patent Owner neither disputes Petitioner's proposed construction nor proposes a different construction. Patent Owner repeatedly identifies a television as an example of a "display terminal." *See, e.g.*, Prelim. Resp. 5 ("display terminal (e.g., television)"); *see also id.* at 8, 9, and 48. The '711 patent describes the use of a "separate multimedia *display terminal* including but not limited to a monitor, television set, projector, or LCD display." Ex. 1001, col. 3, ll. 25-27 (emphasis added). Each of the recited devices is a device for video display. Therefore, on this record, we are persuaded that Petitioner's construction constitutes the broadest reasonable interpretation consistent with the Specification. Accordingly, we construe "display terminal" as "device for video display."

#### 2. "cellular network communication"

Independent claim 15 recites "cellular network communication."

Petitioner proposes that "cellular network communication" be construed as

"transmission from a cellular network." Pet. 4 (citing Ex. 1001, col. 3, ll. 32-42). Patent Owner neither disputes Petitioner's proposed construction nor proposes a different construction. Apart from the claims, the '711 patent does not use the term "cellular network communication." However, the '711 patent does disclose the "transmission of the multimedia information, among other things, to a cellular phone 108" (Ex. 1001, col. 3, ll. 35-37) by "any conventional or to-be-developed technology for delivering voice and/or data to mobile terminals" (Id. at 11. 38-40), including "a cellular communications network or a wireless local area network" (Id. at II. 41-42). The disclosed embodiments of a "cellular network" comprise at least a base station 106 and cellular phone 108. Petitioner's proposed construction is ambiguous because it is unclear whether it encompasses transmissions "from" only base station 106, "from" only cellular phone 108 or "from" both. Nothing in the '711 patent indicates that the term "cellular network communication" implies a particular direction of communication—i.e., from a base station to a mobile terminal, or from a mobile terminal to a base station. To the extent that Petitioner's proposed construction suggests that, because the transmission is *from* the wireless network, it must be to something other than the wireless network, the construction is not consistent with the embodiments described in the '711 patent. Finally, Petitioner's use of the word "transmission" is overly narrow to the extent that it excludes the act of receiving information. In the context of the '711 patent, "communication" is broad enough to encompass both information being transmitted and information being received. On this record, the broadest reasonable -

Case IPR2013-00573 Patent 8,050,711

interpretation consistent with the Specification encompasses any communication over a cellular network, including information transmitted from a base station to a cellular phone or vice-versa, and information received by a base station from a cellular phone or vice-versa. Accordingly, for purposes of this decision, we construe "cellular network communication" as "information transmitted or received over a cellular network."

# B. Claim 16 - Anticipated by Palin

Petitioner contends that claim 16 is unpatentable under 35 U.S.C. § 102(e) as anticipated by Palin. Pet. 8-12, 25-36. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is met by Palin, and relies upon the Declaration of Dr. Kevin C. Almeroth (Ex. 1004). *Id.* (citing Ex. 1004 ¶¶ 155-62, 165-66).

# Palin (Exhibit 1002)

Palin describes wirelessly linking a mobile terminal to a display device to provide better display quality to a user of a mobile terminal. Ex. 1002, col. 2, ll. 11-15. Figure 1(a) of Palin is reproduced below.

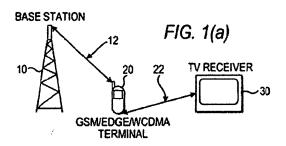
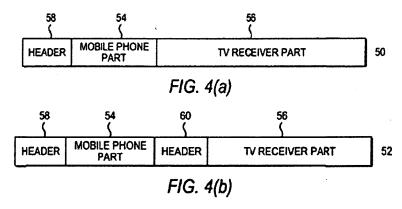


Figure 1(a) depicts a base station, mobile phone, and external display device. As shown in Figure 1(a), a conventional wireless connection has wireless link 12 between base station 10 and mobile terminal 20 to exchange

conventional radio frequency (RF) signals. *Id.* at col. 4, ll. 5-10. Wireless short range RF link 22, such as a Bluetooth link, is established between mobile terminal 20 and an external display device, like television 30. *Id.* at ll. 15-18.

In operation, a service provider transmits data frames as packets to mobile terminal 20 over a wireless communication network. *Id.* at col. 5, ll. 30-32. A packet containing video information may have a data frame structure that can be split into a mobile terminal part 54, and an external display device part 56, as shown in Figures 4(a) and 4(b). *Id.* at ll. 33-38. Figures 4(a) and 4(b) are reproduced below.



Figures 4(a) and 4(b) depict, respectively, first and second possible data frame structures for transmitting a combined audio and video signal. Mobile terminal part 54 includes voice data, images, and other data to be used by mobile terminal 20 such as textual information, caller-ID, and e-mail. *Id.* at col. 5, 1l. 39-44. In contrast:

External display device part 56 is the part to be forwarded to the external display device 30 and generally follows the mobile terminal part 54 within the signal sent by a base station 10 to allow the mobile terminal part 54 to be split off first and used

by the mobile terminal 20. The external display device part 56 generally includes a *video portion of the signal* and may include an audio portion to be played with the video on the external display device.

Id. at II. 44-51 (emphasis added). After a packet is received by mobile terminal 20, splitting application 218 splits mobile terminal part 54 from external display device part 56. Id. at col. 6, II. 28-31. Once split, external display device part 56 is further processed by, in one embodiment, Bluetooth protocol stack 65, where one or more external display device parts 56 are reassembled into one or more Bluetooth-compliant packets. Id. at II. 45-52. These packets are then transmitted to external display device 30. Id. at II. 61-64.

#### Analysis

In light of the arguments and evidence, Petitioner has not established a reasonable likelihood that claim 16 is unpatentable as anticipated by Palin.

Independent claim 15, from which claim 16 depends, recites:

wherein processing by the signal conversion hardware component includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal.

To account for the aforementioned limitation in the prior art, Petitioner relies upon Palin. Specifically, Petitioner relies upon the splitting, by splitting application 218, of a packet, such as data frame structure 50, into mobile terminal part 54 and external display device part 56, the latter of which is

then transmitted from mobile terminal 20 to external display device 30 using, e.g., a Bluetooth protocol. Pet. 11-12, 31-33. Dr. Almeroth's declaration repeats the Petition nearly verbatim. Ex. 1004, ¶¶ 161. Patent Owner argues, *inter alia*, that external display device part 56 is not "convert[ed] . . . from a compression format . . . to a display format . . . that is different than the compression format" because isolating and reassembling one or more external display device parts 56 as a Bluetooth packet does not alter the "format" of the video signal contained therein. Prelim. Resp. 6-11, 27-35.

We are persuaded that external display device part 56 is not "convert[ed] . . . to a display format . . . that is different from the compression format." Palin discloses that splitting application 218 isolates external display device part 56 of a received payload from mobile terminal part 54. Ex. 1002, col. 2, ll. 41-46; col. 5, ll. 24-26; col. 6, ll. 28-45. Once external display device part 56 is isolated, it is repackaged into another transport protocol, such as the Bluetooth protocol, for transmission to external display device 30. *Id.* at col. 5, ll. 58-61; col. 6, ll. 45-52. According to Palin:

[E]ach Bluetooth packet 95 comprises . . . payload 98, which comprises one or more external display device parts 56 or a portion of an external display device part, the organization of the data into Bluetooth packets depending on the size of external display device part 56 and the size of payload 98.

Id. at col. 6, ll. 53-60 (emphasis added). Palin further states:

Upon receipt at external display device 30 the packets are buffered at buffer (not shown) having a sufficient memory for

the data stream (step 104), and the packets are stripped of the access code 96 and header parts 97 (step 106) and the payloads 95 of the various packets are then reassembled by the Bluetooth protocol stack 66 at the external display device 30 into a data stream to be played, whether as video only or with audio available (step 108).

Id. at col. 7, 11. 45-53 (emphasis added). Thus, one or more external display device parts 56 are received by mobile terminal 20, and are later reassembled at external display device 30 into a data stream to be played. *Id.* Even assuming that the format of the video signal contained in external display device parts 56 is "a signal format appropriate for the mobile terminal," the video signal is not "converted" because external display device parts 56 output to external display device 30 are the same external display device parts 56 received by mobile terminal 20. The IEEE Dictionary defines "convert" as follows: convert (data processing); to change the representation of data from one form to another, for example, to change numerical data from binary to decimal or from cards to tape. Institute of Electrical and Electronics Engineers, The Authoritative Dictionary of IEEE Standard Terms 238 (7th Ed., IEEE Press 2000). This definition is consistent with the specification, which discloses converting multimedia content to the following signal formats: S-video, RGBHV, RGBS, EIA770.3, DVI, DVI-D, HDMI, IEEE1394. Ex. 1001, col. 18, ll. 1-10, Fig. 11. Indeed, the specification repeatedly differentiates between converting signal formats and routing via a communications protocol. Ex. 1001, col. 3, ll. 33-46, col. 21, ll. 33-40, col. 26, ll. 28-32 and 59-63, col. 27, ll. 1-16. When this definition is applied to Palin, even after

splitting, the first display device part(s) and second display device part(s) of Palin retain their original form such that they can still be displayed on their respective devices. The same analysis applies if Petitioner is attempting to assert that reassembling one or more external display device parts 56 into one or more Bluetooth-compliant packets corresponds to the recited converting. Thus, splitting application 218 does not "convert[] the video signal from a compression format appropriate for the mobile terminal"—i.e., the format of the video signal in external display device parts 56—"to a display format for the alternative display terminal that is different from the compression format," as required by claim 15.

#### Conclusion

We are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 16 is unpatentable as anticipated by Palin.

#### C. Claim 16 – Obvious over Palin

Petitioner argues that claim 16 is unpatentable under 35 U.S.C. § 103(a) as obvious over Palin. Pet. 13-18, 25-36. In support of this ground of unpatentability, Petitioner provides detailed explanations of how each claim limitation is taught or suggested by Palin, and relies upon the Declaration of Dr. Almeroth. *Id.* (citing Ex. 1004 ¶¶ 45-115, 155-62, 165-77).

#### <u>Analysis</u>

In light of the arguments and evidence, we are not persuaded that Petitioner has established a reasonable likelihood that claim 16 is unpatentable as obvious over Palin.

Independent claim 15, from which claim 16 depends, recites:

wherein processing by the signal conversion hardware component includes converting the video signal from a compression format appropriate for the mobile terminal to a display format for the alternative display terminal that is different from the compression format, such that the converted video signal comprises the display format for the alternative display terminal.

We are not persuaded that Palin discloses this limitation for the reasons discussed above. Petitioner contends that this limitation would have been obvious to a person of ordinary skill in the art. Pet. 15-16 (citing Ex. 1004, ¶¶ 45-115, 155-62, 165-77). Specifically, Petitioner contends that both decoding of compression formats and conversion of video signals "from one format to another (e.g., component, composite, S-video, VGA, DVI, HDMI, co-axial, NTSC, PAL, SDTV, and HDTV)" were well known by persons of ordinary skill in the art, and a person of ordinary skill in the art "would have combined that knowledge with Palin to convert the video signal to a power level appropriate for driving the alternative display." Pet. 16. Patent Owner contends that it would *not* have been obvious because, "the '711 patent is focused on the conversion of video signals," such as from "a compressed video signal (e.g., MPEG-2) to a decompressed raw video signal" (Prelim. Resp. 15), and:

[I]n the system of Palin, where compressed data is received through cellular transmission, one of ordinary skill in the art would expect the same data to remain compressed as it is transmitted via Bluetooth. As explained above, the bandwidth of uncompressed video data can be in excess of 100 Mbps, while the practical bandwidth of Bluetooth is about 1 Mbps. Therefore, the bandwidth of Bluetooth is not suitable for the transmission of uncompressed video data.

Prelim. Resp. 19-20 (footnote omitted). Neither Petitioner nor Dr. Almeroth explain how a person of ordinary skill in the art would output a video signal at "a power level appropriate for driving the alternative display" (Pet. 16)—i.e., a decompressed video signal that a person of ordinary skill in the art would have understood to require a bandwidth in excess of 100Mbs—over short range RF link 22 of Palin that a person of ordinary skill in the art would have understood to have a bandwidth of about only 1Mbps. On this record, we are not persuaded that it would have been obvious to a person of ordinary skill in the art to modify Palin to "convert[] the video signal from a compression format... to a display format... that is different than the compression format."

#### Conclusion

We are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 16 is unpatentable as obvious over Palin.

D. Claim 18 – Obvious over Palin and Hayakawa

Petitioner argues that claim 18 is unpatentable under 35 U.S.C.

§ 103(a) as obvious over Palin and Hayakawa. Pet. 18-20, 36-37. In

support of this ground of unpatentability, Petitioner provides detailed explanations of how each claim limitation is taught or suggested by Palin and Hayakawa, and relies upon the Declaration of Dr. Almeroth. *Id.* (citing Ex. 1004 ¶¶ 45-115, 155-77).

### Hayakawa (Ex. 1003)

Hayakawa discloses a flat panel multimedia display system and multimedia receiver system for displaying video and audio multimedia information generated for, *inter alia*, cellular telephone systems. Ex. 1003, Abstract; ¶¶ 0032-33. Figure 7 of Hayakawa is reproduced below.

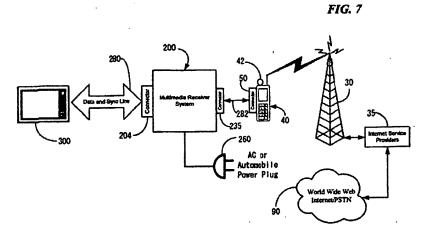


Figure 7 illustrates cellular telephone system 40 connected to multimedia receiver system 200 and internet 90. *Id.* ¶ 0068. Multimedia receiver system 200 connects to display system 300 through data and sync line 280. *Id.* When large images and sound files are received by cellular telephone system 40, they are processed by multimedia receiver system 200, and its output is displayed on display system 300. *Id.* In this way, "[i]nstead of using a small LCD on the device 40, a telephone user can browse [the] Internet using the display system 210 and the receiver 200 by using an

external signal cable **282**." *Id*.  $\P$  0053. Figure 2 of Hayakawa is reproduced below.

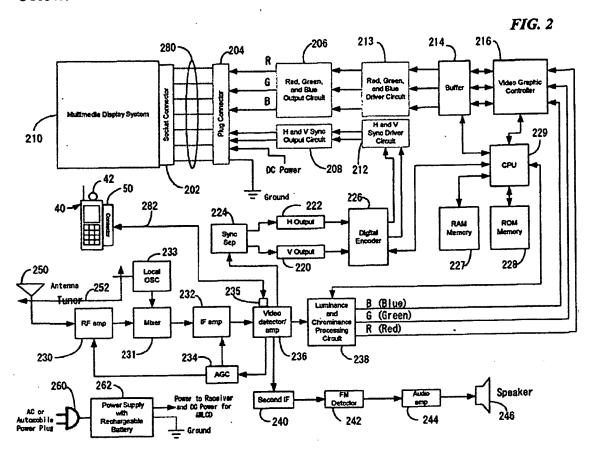


Figure 2 illustrates a detailed functional diagram of multimedia receiver system 200. *Id.* ¶ 0041. As shown, power supply 262 supplies power to display system 210 and to receiver 200 through second connector 202 and plug connector 204. *Id.* ¶ 0063. Plug 260 connects to an alternating current ("AC") or automobile power source. *Id.* 

#### <u>Analysis</u>

In light of the arguments and evidence, we are not persuaded that Petitioner has established a reasonable likelihood that claim 18 is unpatentable as obvious over Palin and Hayakawa.

As discussed above, we are not persuaded that Palin anticipates or renders obvious independent claim 15, from which claim 18 depends. Moreover, Petitioner does not allege that any limitation of claim 15 would have been obvious in view of Hayakawa. Pet. 18-20, 25-35. Petitioner cites Hayakawa only for teaching the additional limitation recited in claim 18. *Id.* at 36-37. Because we are not persuaded that Palin teaches the limitations of claim 15, and because Petitioner does not argue that Hayakawa cures the deficiencies noted above, Petitioner has not established a reasonable likelihood that claim 18 is unpatentable as obvious over Palin and Hayakawa.

#### Conclusion

We are not persuaded that Petitioner has established a reasonable likelihood that it would prevail in showing that claim 18 is unpatentable as obvious over Palin and Hayakawa.

#### III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the petition establishes that there is not a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claims 16 and 18 of the '711 patent.

## IV. ORDER

Accordingly, it is

ORDERED that the petition is denied and no trial is instituted.

## For PETITIONER:

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### For PATENT OWNER

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## TO:

# Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

# REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK

In Compliand filed in the U.S. Dist	e with 35 U.S.C. § 290 and		1116 you are here n District of Virg		oction has been on the following	
☐ Trademarks or	Patents. (  the paten	t action involve	s 35 U.S.C. § 292.	):		
DOCKET NO. 2:16 6 4 6 0	DATE FILED 2/8/2016	U.S. DI	U.S. DISTRICT COURT Eastern District of Virginia			
PLAINTIFF			DEFENDANT			
VIRGINIA INNOVATION SCIENCES, INC.				ONICS, INC., LG EL CTRONICS MOBILE	ECTRONICS USA, INC. ECOMM USA, INC.	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK		HOLDER OF PATENT OR TRADEMARK			
1 7,899,492	3/1/2011	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
2 8,050,711	11/1/2011	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
3 8,903,451	12/2/2014	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
4 8,948,814	2/3/2015	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
5 9,118,794	8/25/2015	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
	In the above—entitled case	e, the following	patent(s)/ tradema	rk(s) have been included	1:	
DATE INCLUDED	INCLUDED BY	Amendment	☐ Answer	☐ Cross Bill	Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK		HOLDER OF PATENT OR TRADEMARK			
1 8,712,471	4/29/2014	VIR	VIRGINIA INNOVATION SCIENCES, INC.			
2						
3						
4						
5						
In the above	ve—entitled case, the follow	wing decision h	as been rendered or	r judgement issued:		
DECISION/JUDGEMENT						
CLERK (BY) DEPUTY CLERK DATE						
FERNANDO GALINDO			E. Price		2/8/16	

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy