HP 350x IP Phone Series

Data sheet

Product overview

The full-featured, SIP-based HP 350x IP Phone Series meets the diverse communications needs of organizations of all sizes with a full range of call-handling features and functionality that encourages collaboration and increases productivity. All phones support digital labeling, PoE, four-way navigation controls, and are available with high-resolution backlit and color TFT displays. In addition, they deliver rich, full body, wideband voice clarity with full-duplex speakerphones, as well as offer intuitive interfaces, Gigabit Ethernet support, and environmentally friendly power-save options. Ideal for common areas and everyday desktop business use, the phones are the perfect solution for knowledge workers, departmental administrators, and teleconference participants with intensive communication requirements. Optional accessories include wall mounts, AC power adapters, and deskstands.

Key features

- Wide phone portfolio for all business needs
- Lower energy use and cost-effective operation
- Gigabit Ethernet connectivity for high performance
- Productivity-enhancing IPPBX feature functionality
- Exceptional sound quality with wideband audio

Features and benefits

Management

- **Nine definable ring tones:** offer a choice of ring tones, which are used when alerting users of new incoming calls and can be configured via the Web provisioning interface; provides customers with a choice to further personalize the phone to meet their own needs

- **Browser-based management:** Web-based management on the VCX server eases configuration tasks and makes advanced features easier to master; customization capabilities allow users to accomplish a variety of setup procedures themselves

- **Support for 10 different languages:** all 350x series IP phones have user interface localization capabilities with the support of the following interface languages: Chinese (Simplified), Dutch, English (US), French (European), German, Italian, Korean, Portuguese (Brazilian), Spanish (Latin), and Russian

- **VCX IP phone license support:** all 350x series IP phones require a software keycode license (sold separately) to activate; 350x phones will work with legacy VCX 7.x , 8.x, and 9.0 IP phone licenses, along with 9.5+ IP phone licenses, as long as VCX system is running software version 9.5 and later; all IP phone licenses are managed from the VCX administrator Web provisioning interface

- **Country-specific tones:** VCX Connect solution allows administrators and users to configure phones for a certain country, which specifies the tones used by the phone; the country configuration for the phone is on a per-user basis via Web provisioning

Connectivity

- **Gigabit Ethernet connectivity:** to reduce cabling costs and eliminate the need for a standalone switch port, 350x series IP phone models offer two switched Gigabit Ethernet ports, except for the 3500B model, which supports 10/100 connectivity; the second port is used as a PC pass-through port that supports handling and passing of IEEE 802.1x EAP packets; this helps ensure that the desktop phone is an integral part of a high-performance network and is ready for future connectivity needs

- **Optional connectivity accessories:** include ergonomically designed wall mounts that fit the form factor of the 350x phone design, AC power adapters, and replacement phone stands

- **IEEE 802.3af Power over Ethernet (PoE) support:** all 350x series IP phones support IEEE 802.3af Power over Ethernet (PoE) and help reduce the total cost of ownership

Investment protection

- **Green technology:** all 350x series IP phones support configurable energy conservation options that include both a screen-save capability and a deep sleep power-save mode; user- and administrator-configurable power-save options reduce energy use by up to 50% relative to peak usage requirements

- **Energy Star 2.0 power adapters:** optional 350x series IP phone power adapters are designed to be Energy Star 2.0 compliant to make them more efficient than conventional adapters

Ease of use

- **Context-sensitive soft keys:** 3503 model phones have five interactive and context-sensitive soft keys, while the remaining models have four, facilitating efficient management of the most demanding communication needs; this enables easy access to the user directory, call logs, speed dials, and feature lists from the LCD soft keys; all phones use either icon- or text-driven menu selections for universal understanding of feature options

Flexibility

- **A phone portfolio for all business needs:** 350x series phones offer a comprehensive suite of devices designed for the most demanding and varied range of work environments and users; easy-to-use features make these phones ideal for common areas and everyday desktop business use, as well as for knowledge workers, departmental administrators, and teleconference participants with intensive communication requirements

- **Customizable system-wide background image:** options such as customizable background images on the 3503 IP phone provide enterprise administrators with the flexibility to upload a company-wide corporate image

- **Three-page button-mapping features:** one-touch call handling, enabled by programmable feature buttons accessible by a unique three-page scrolling feature on the 3502 and 3503 IP phones, provides the scalability and flexibility to map three times the number of features as available buttons.

- **Flexible date and time display:** allows administrators or users to configure date and time displays on the phones using the Web provisioning interface, which provides displays based on user preference or location preference

Technical features

- **Phone mobility and roaming:** allows system administrator to determine whether end users can move their stations; phones/soft clients can be locked to a physical switch port (using MAC address) or to a specific IP subnet; end users can move their phones to any location that has IP access to the user's telephony server, regardless of geographic location; hot desking is supported with VCX when logging into a different VCX region or branch that is configured for Global Directory

- **Full-duplex speaker phones:** all 350x series IP phones feature full-duplex speakers, which provide a more superb "real" communication experience, even with the entry-level phones

User productivity

- **Productivity-enhancing functionality:** a broad range of functions, combined with HP VCX IP telephony, offer organizations exceptional scalability and reliability; these capabilities include SIP-based messaging, conferencing, presence, multiline support, shared call/bridged line appearance, busy lamp field, flexible button mappings, soft keys, dedicated menu buttons for one-touch access, and a myriad of other Voice over IP (VoIP) functions that enhance communications and collaboration

Voice functionality

- **Hearing aid compatibility:** all HP 350x series IP phones comply with FCC Part 68 (CFR 47), hearing aid compatibility (HAC), to support hearing aids that contain sensitive tele-coils

- **Adaptive jitter buffer:** all 350x series IP phones offer adaptive jitter buffers to help resolve VoIP packet delay, delay jitter, packet loss, and occasional clock drifts caused by the complexity of voice and data networks

- **Exceptional sound clarity:** the 350x series IP phones deliver superior voice quality over the network; all users experience rich, high-fidelity audio—a particularly important benefit in a multisite networking environment; clear, high-quality audio performance is provided by the wideband audio codecs G.722 and G722.2 used on most models

- **Superior speaker mode audio:** standard headset connections, handset-lifter friendly designs, wideband-ready handsets, dedicated handset-headset changeover buttons and full-duplex speakerphones with echo cancellation, and noise reduction further enhance the experience of hands-free communications

- **Multiple codec support:** all 350x IP phone models support the following range of audio codecs: G.711, G.729a/b (models 3500, 3500B), G.722, G722.2, G.711, and G.729a/b (all other models); all models require system software support

Phone characteristics

- **RJ-9 headset jack:** allows for industry-standard RJ-9 compatible wired and wireless headsets and handset lifters to be connected for easy call handling and convenience

- **Four-way cursor control with select key:** all 350x series IP phones feature four-way navigation buttons with a select button that allows for quick and easy feature menu navigation, phone configuration and call handling; the navigation select key can be used to put calls on and off hold

- **Interactive LCD displays:** all 350x series IP phones offer icon- and text-driven menus

- **Linux operating system:** all 350x series IP phones are implemented on a robust security-hardened Linux operating system

- **Backlit MUTE button:** all 350x series IP phones feature a backlit, dedicated MUTE button, which provides easy audio control

- **New contemporary look and feel:** a newly designed, energy-efficient family of devices, the HP 350x IP series phones are a new product offering from HP that replaces the current 310x IP Phones Series

Warranty and support

- **Warranty:** one-year limited lifetime hardware warranty; 90-day limited software warranty; 90 days of telephone technical support

HP 350x IP Phone Series

Specifications

	HP 3500B IP Phone (JC505A)	HP 3500 IP Phone (JC504A)	HP 3501 IP Phone (JC506A)
Ports	2 RJ-45 auto-sensing 10/100 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3af PoE); Duplex: half or full 2 RJ-9 (headset and handset)	2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 RJ-9 (headset and handset)	2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 RJ-9 (headset and handset)
Physical characteristics			
Dimensions	8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height)	8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height)	8.7(d) x 7.8(w) x 3.6(h) in. (22.1 x 19.81 x 9.14 cm) (NAU height)
Weight	2.91 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material	2.9 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material	2.91 lb. (1.32 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material
Full configuration weight	2.13 lb. (0.97 kg)	2.13 lb. (0.97 kg)	2.18 lb. (0.99 kg)
Mounting	Rests on a multiangle deskstand or wall mount	Rests on a multiangle deskstand or wall mount	Rests on a multiangle deskstand or wall mount
Environment			
Operating temperature	32°F to 104°F (0°C to 40°C); Ambient Temperature	32°F to 104°F (0°C to 40°C); Ambient Temperature	32°F to 104°F (0°C to 40°C); Ambient Temperature
Operating relative humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Electrical characteristics			
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	0.5 A	0.5 A	0.5 A
Idle power	2.4 W	4.4 W	5.7 W
Maximum power rating	2.8 W	6.4 W	8.1 W
Power output	25 W	25 W	25 W
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Phone characteristics			
Max. calls (lines) supported	2	2	2
Programmable lighted buttons	2 (not lighted)	2 (not lighted)	2 (not lighted)
Fixed feature buttons	10	10	10
Soft keys	4 (see *Notes)	4 (see *Notes)	4
Four-way navigation control	Yes	Yes	Yes
Display type	Grayscale	Grayscale	Backlit Grayscale
Display backlit	No	No	Yes
Number of display lines	4	4	4
Display size	3.5 in. (85 mm x 28 mm)	3.5 in. (85 mm x 28 mm)	3.5 in. (85 mm x 28 mm)
Display pixel resolution	192 x 64	192 x 64	192 x 64
Desk stand	Multiposition (35 and 55 degree)	Multiposition (35 and 55 degree)	Multiposition (35 and 55 degree)
Platforms Supported	VCX	VCX	VCX
Default ringtones	9	9	9
Emissions	VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001	VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001	VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001
Immunity			
Generic	ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3

Specifications (continued)

	HP 3500B IP Phone (JC505A)	HP 3500 IP Phone (JC504A)	HP 3501 IP Phone (JC506A)
EN	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003
ESD	EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD	EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD	EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD
Radiated	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m
EFT/Burst	EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line)	EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line)	EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line)
Surge	EN 61000-4-5:2006 AC :2 kV/4 kV	EN 61000-4-5:2006 AC :2 kV/4 kV	EN 61000-4-5:2006 AC :2 kV/4 kV
Conducted	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5
Power frequency magnetic field	EN 61000-4-8:2001 1 A/m, 50 or 60 Hz	EN 61000-4-8:2001 1 A/m, 50 or 60 Hz	EN 61000-4-8:2001 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period	EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period	EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period
Harmonics	EN 61000-3-2:2006 class A	EN 61000-3-2:2006 class A	EN 61000-3-2:2006 class A
Flicker	EN 61000-3-3:1995 +A1:2001+A2:2005	EN 61000-3-3:1995 +A1:2001+A2:2005	EN 61000-3-3:1995 +A1:2001+A2:2005
Management	IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones	IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones	IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones
Notes	For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys.	For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys.	For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys.
Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
Standards and protocols (applies to all products in series)	**Device management** Web UI **General protocols** IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3af Power over Ethernet RFC 768 UDP RFC 791 IP RFC 792 ICMP RFC 793 TCP	RFC 826 ARP RFC 854 TELNET RFC 894 IP over Ethernet RFC 950 Internet Standard Subnetting Procedure RFC 951 BOOTP RFC 1042 IP Datagrams RFC 1349 Type of Service RFC 1531 Dynamic Host Configuration Protocol RFC 1533 DHCP Options and BOOTP Vendor Extensions RFC 1534 DHCP/BOOTP Interoperation RFC 1541 DHCP RFC 1542 BOOTP Extensions RFC 2131 DHCP	RFC 2132 DHCP Options and BOOTP Vendor Extensions RFC 3261 Session Initiation Protocol (SIP) **IP multicast** RFC 2236 IGMPv2

Specifications (continued)

	HP 3502 IP Phone (JC507A)	**HP 3503 IP Phone (JC508A)**
Ports	2 RJ-45 auto-sensing 10/100/1000 PoE ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T, IEEE 802.3af PoE); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 RJ-9 (headset and handset)	2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 2 RJ-9 (headset and handset)
Physical characteristics		
Dimensions	9.7(d) x 8.4(w) x 3.7(h) in. (24.64 x 21.34 x 9.4 cm) (NAU height)	10.6(d) x 8.9(w) x 3.6(h) in. (26.92 x 22.61 x 9.14 cm) (NAU height)
Weight	3.7 lb. (1.68 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material	3.7 lb. (1.68 kg), Fully loaded phone, handset and cord, Ethernet cable, phone sheets, and other packaging material
Full configuration weight	2.6 lb. (1.18 kg)	2.66 lb. (1.21 kg)
Mounting	Rests on a multiangle deskstand or wall mount	Rests on a multiangle deskstand or wall mount
Environment		
Operating temperature	32°F to 104°F (0°C to 40°C); Ambient Temperature	32°F to 104°F (0°C to 40°C); Ambient Temperature
Operating relative humidity	5% to 95%, non-condensing	5% to 95%, non-condensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Electrical characteristics		
Voltage	100-240 VAC	100-240 VAC
Current	0.5 A	0.5 A
Idle power	5.8 W	5.3 W
Maximum power rating	9.1 W	10.6 W
Power output	25 W	25 W
Frequency	50 / 60 Hz	50 / 60 Hz
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Phone characteristics		
Max. calls (lines) supported	6	8
Programmable lighted buttons	15 (on 3 screens)	21 (on 3 screens)
Fixed feature buttons	11	11
Soft keys	4	3
Four-way navigation control	Yes	Yes
Display type	Backlit Grayscale	Backlit, Graphical Color, Anti-glare
Display backlit	Yes	Yes
Number of display lines	8	10
Display size	4.3 in. (95 mm x 52 mm)	5 in. (110.6 mm x 67.4 mm)
Display pixel resolution	240 x 128	800 x 480
Desk stand	Multiposition (35 and 55 degree)	Multiposition (35 and 55 degree)
Platforms Supported	VCX	VCX
Default ringtones	9	9
Emissions	VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001	VCCI Class B; EN 55022 Class B; AS/NZS 3548 Class B; FCC CFR 47 Part 15 Class B; ICES-003 Class B; AS/NZS CISPR 22; VCCI V-3/2000.04; EMC Directive 89/336/EEC; EN 55022 (CISPR 22) Class B with FTP Cabling; FCC Part 15, Class B with FTP cabling; ANSI C63.4 2003; CISPR 24; ETSI EN 300 386 V1.3.3; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; Anatel; EN 61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; EN 55024:1998+ A1:2001 + A2:2003; EN 61000-4-11:2004; EN 61000-4-8:2001
Immunity		
Generic	ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3	ETSI EN 300 386 V1.3.3; ANSI C63.4 2003; EMC Directive 2004/108/EC; ETSI EN 300 386 V1.3.3
EN	EN 55024:1998+ A1:2001 + A2:2003	EN 55024:1998+ A1:2001 + A2:2003
ESD	EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD	EN 61000-4-2:1995+A1:1998+A2:2001 4 kV CD, 8 kV AD
Radiated	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; EN 61000-4-3:2006 80~800 MHz: 3 V/m,800~960 MHz:10 V/m, 960~1000 MHz: 3 V/m, 1400~2000 MHz: 10 V/m
EFT/Burst	EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line)	EN 61000-4-4:2004 1.0 kV (power line) , 0.5 kV (signal line)
Surge	EN 61000-4-5:2006 AC :2 kV/4 kV	EN 61000-4-5:2006 AC :2 kV/4 kV
Conducted	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5	AS/NZS CISPR22 Class B; FCC (CFR 47, Part 15) Class B; ICES-003 Class B; EN 55022 Class B; Class B with UTP5

Specifications (continued)

	HP 3502 IP Phone (JC507A)	HP 3503 IP Phone (JC508A)
Power frequency magnetic field	EN 61000-4-8:2001 1 A/m, 50 or 60 Hz	EN 61000-4-8:2001 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period	EN 61000-4-11:2004 >95% reduction, 0.5 period; 30% reduction, 25 periods; >95% reduction, 250 period
Harmonics	EN 61000-3-2:2006 class A	EN 61000-3-2:2006 class A
Flicker	EN 61000-3-3:1995 +A1:2001+A2:2005	EN 61000-3-3:1995 +A1:2001+A2:2005
Management	IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones	IMC - Intelligent Management Center; Web browser; configuration menu; Digital Labels, Definable ring tones
Notes	For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys.	For 3500/3500B/3501 models: Of the four buttons below the LCD, the two on the right are unlighted, programmable, and may be used as soft keys. Wideband audio (G.722) handset, wideband audio (G.722) speakerphone, and adaptive jitter buffer; QoS: IP-ToS, IEEE 802.1p, DHCP, and Option 184.
Services	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Standards and protocols
(applies to all products in series)

Device management
Web UI

General protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.3 Type 10BASE-T
IEEE 802.3ab 1000BASE-T
IEEE 802.3af Power over Ethernet
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP

RFC 826 ARP
RFC 854 TELNET
RFC 894 IP over Ethernet
RFC 950 Internet Standard Subnetting Procedure
RFC 951 BOOTP
RFC 1042 IP Datagrams
RFC 1349 Type of Service
RFC 1531 Dynamic Host Configuration Protocol
RFC 1533 DHCP Options and BOOTP Vendor Extensions
RFC 1534 DHCP/BOOTP Interoperation
RFC 1541 DHCP
RFC 1542 BOOTP Extensions
RFC 2131 DHCP

RFC 2132 DHCP Options and BOOTP Vendor Extensions
RFC 3261 Session Initiation Protocol (SIP)

IP multicast
RFC 2236 IGMPv2

Specifications (continued)

Features

Phone licenses
Phone licenses are required to operate all HP IP phones on VCX platforms.

Minimum system software
VCX 9.5 or later system software is required for all 350x series IP phones.

Phone packaging content
Includes a telephone, desktop mount, Quick Install Guide, phone handset, 2.5 m handset cord, 2 m Ethernet cable, registration card, limited warranty statement, and the compliance and safety manual.

Power savings
Power savings (in screen-saver or deep sleep power-save modes): Percentages are based on peak usage calculations by IP phone models
3500B IP phone: 15%
3500 IP phone: 31%
3501 IP phone: 30%
3502 IP phone: 40%
3503 IP phone: 50%

Silence Suppression
Supported with G.729b codec only

HP 350x IP Phone Series accessories

IP Telephony

HP 350x Series IP Phone AC Power Adapter (JC509A)
NEW HP 350x Series IP Phone Wall Mount (JC510A)
NEW HP 350x Series IP Phone Stand (JC511A)

To learn more, visit www.hp.com/networking

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