



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

**APPLICATION #: OSP-0728**

**HCAI Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: JMA Wireless

Manufacturer's Technical Representative: Nader Famili

Mailing Address: 1206 Clark Springs Dr., Keller, TX 76248

Telephone: (817) 727-9946

Email: nfamili@jmawireless.com

**Product Information**

Product Name: Internal Communication Servers and Routers

Product Type: Wireless Communication Systems

Product Model Number: JMA Wireless remotes and rack mount components

General Description: DAS systems for indoor extension of cellular networks

Mounting Description: See Certified Product Tables, Rigidly Wall Supported or Floor Mounted

Tested Seismic Enhancements: None

**Applicant Information**

Applicant Company Name: JMA Wireless

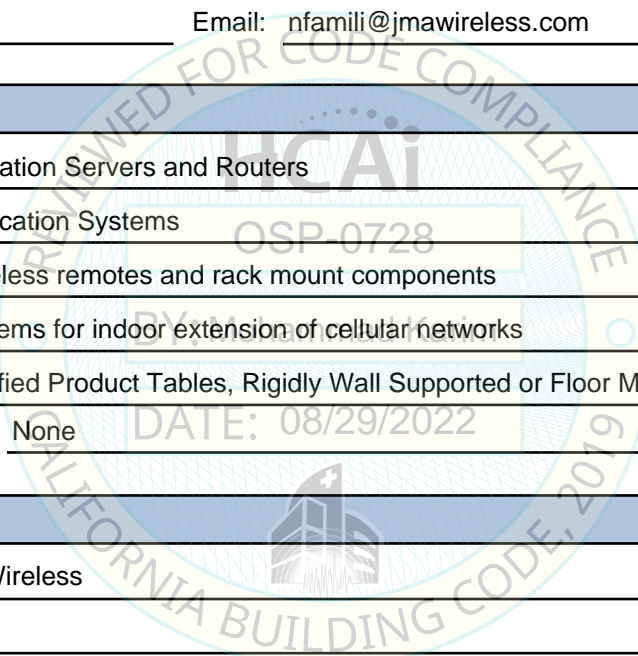
Contact Person: Nader Famili

Mailing Address: 1206 Clark Springs Dr., Keller, TX 76248

Telephone: (817) 727-9946

Email: nfamili@jmawireless.com

Title: Director product specialist





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)**

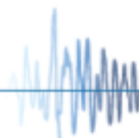
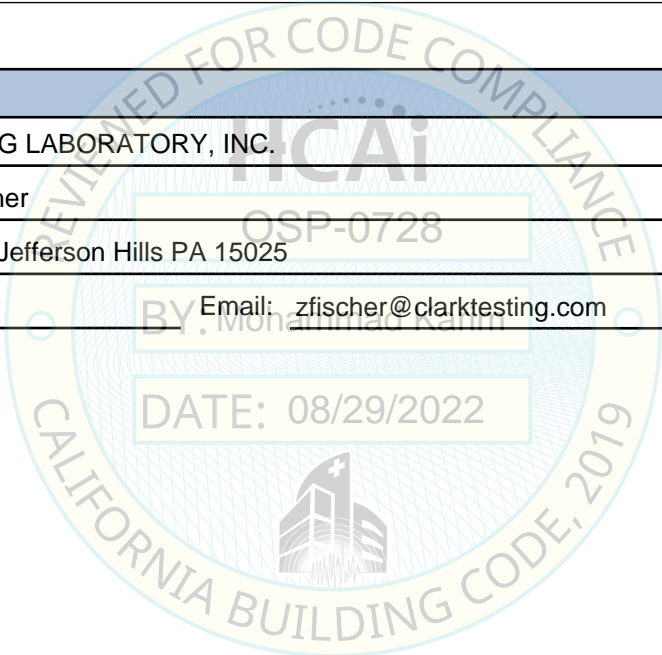
Company Name: JUNKER ENGINEERING GROUP  
Name: Dan Junker California License Number: S6178  
Mailing Address: 8950 Jefferson Ave, La Mesa, CA 91941  
Telephone: (619) 606-5058 Email: dan@junkereng.com

**Certification Method**

GR-63-Core     ICC-ES AC156     IEEE 344     IEEE 693     NEBS 3  
 Other (Please Specify): \_\_\_\_\_

**Testing Laboratory**

Company Name: CLARK TESTING LABORATORY, INC.  
Contact Person: Zackary E. Fischer  
Mailing Address: 1801 Route 51, Jefferson Hills PA 15025  
Telephone: (412) 387-1676 Email: zfischer@clarktesting.com





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**Seismic Parameters**

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.44

SDS (Design spectral response acceleration at short period, g) = 2.0

$a_p$  (Amplification factor) = 1.0

$R_p$  (Response modification factor) = 2.5

$\Omega_0$  (System overstrength factor) = 2.0

$I_p$  (Importance factor) = 1.5

$z/h$  (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

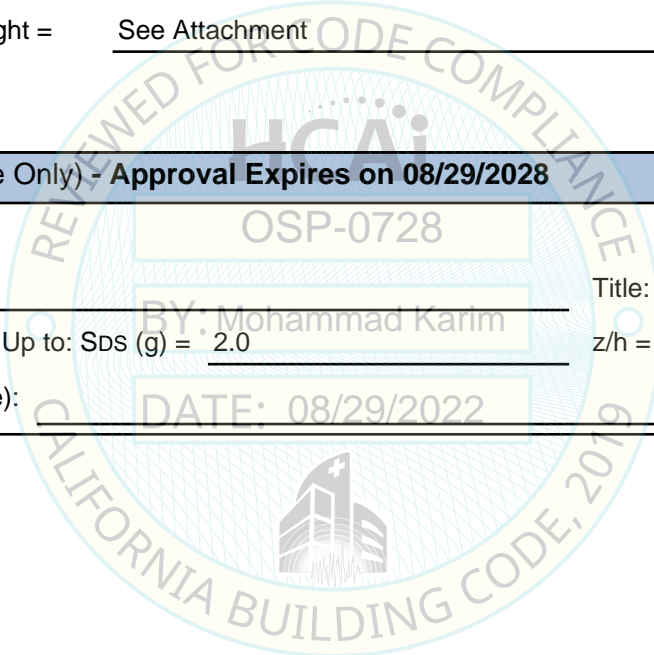
**HCAI Approval (For Office Use Only) - Approval Expires on 08/29/2028**

Date: 8/29/2022

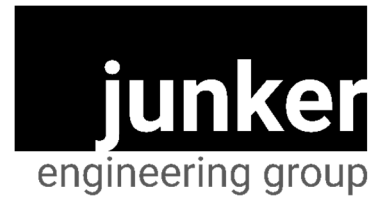
Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = 2.0  $z/h$  = 1

Condition of Approval (if applicable): DATE: 08/29/2022



# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Remote Units

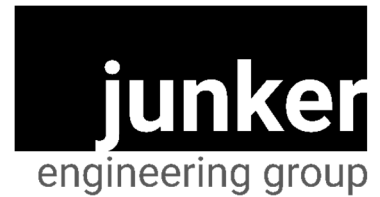
**Table 1**

Construction Summary	Certification Parameters
Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.	<b>Building Code:</b> CBC 2022
<b>Notes</b> Refer to following for certification constraints related to rack mounted components.	<b>Component Importance Factor:</b> $I_p = 1.5$ <b>S<sub>Ds</sub> = 2.0g @ z/h = 1.0</b>
Mounting Summary	Notes

Rigid surface wall mount (Remote Units).

Model Line	Model	UUT Description	UUT
Ultra-High & Very High Power Remote Unit	T19AWEWWAT	RU 2-band PCS1900, AWS3, Wideband, 40W, AC powered, WDM, 4.3-10	
	T7E8SC8A19AWEBWAT	RU 6-band SMR700/Firstnet, Commercial SMR800, AMPS850, PCS1900, AWS3, biduplexed, 40W, AC powered, WDM, 4.3-10	
	T7E8SC8A19AWEBWDT	RU 6-band SMR700/Firstnet, Commercial SMR800, AMPS850, PCS1900, AWS3, biduplexed, 40W, DC powered, WDM, 4.3-10	
	T19AWE19AWEWWDT	RU 2-band PCS1900, AWS3, MIMO, 40W, DC powered, WDM, 4.3-10	
	T19AWE19AWEWWAT	RU 2-band PCS1900, AWS3, MIMO, 40W, AC powered, WDM, 4.3-10	
	T19AWE2325BWAT	RU High bands PCS1900, AWS3, WCS2300, 2500 TDD, biduplexed, 40W, AC powered, WDM, 4.3-10	
	T19AWE2325BWDT	RU High bands PCS1900, AWS3, WCS2300, 2500 TDD, biduplexed, 40W, DC powered, WDM, 4.3-10	
	T67E8SC8AWWA59T	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 40W, AC powered, WDM, 4.3-10, add-on	
	T67E8SC8AWWAT	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 40W, AC powered, WDM, 4.3-10	
	T67E8SC8AWW59T	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 40W, DC powered, WDM, 4.3-10, add-on	
	T67E8SC8AWWDT	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 40W, DC powered, WDM, 4.3-10	
	T2323WVAT	RU Single-band MIMO WCS2300, 20W VHP, AC powered, WDM, 4.3-10	
	T2323WVAM14T	RU Single-band MIMO WCS2300, 20W VHP, AC powered, WDM, 4.3-10, add-on	
	T2525WVAM14T	RU Single-band MIMO 2500 TDD, 20W VHP, AC powered, WDM, 4.3-10, add-on	
	T2525WVAT	RU Single-band MIMO 2500 TDD, 20W VHP, AC powered, WDM, 4.3-10	
	T19AWEWVAT	RU 2-band PCS1900, AWS3, Very high power, AC powered, WDM, 4.3-10	
	T19AWEWVDT	RU 2-band PCS1900, AWS3, Very high power, DC powered, WDM, 4.3-10	
	T2325WVA59T	RU 2-band WCS2300, 2500 TDD, VHP, AC powered, WDM, 4.3-10, add-on	
	T2325WVDT	RU 2-band WCS2300, 2500 TDD, VHP, DC powered, WDM, 4.3-10	
	T2325WVAT	RU 2-band WCS2300, 2500 TDD, VHP, AC powered, WDM, 4.3-10	
	T19HAWX2325BVAT	RU High bands PCS1900, AWS3, WCS2300, 2500 TDD, biduplexed, 20W, AC powered, WDM, 4.3-10	2
	T19HAWX2325BVDT	RU High bands PCS1900, AWS3, WCS2300, 2500 TDD, biduplexed, 20W, DC powered, WDM, 4.3-10	
	T7E8AE19HAWXBVATH	RU 6 Bands SMR700/Firstnet-SMR800 Commercial-AMPS850 Plus-PCS1900-AWS3 AWS4, biduplexed, 20W VHP, AC powered, WDM, SMF, 4.3-10, Horizontal mounting	
	T7E8AE19HAWXBVAT	RU 6-Band SMR700/Firstnet-Commercial SMR800-AMPS850 Plus -PCS1900-AWS3 AWS4, biduplexed, 20W, AC powered, WDM, SMF, 4.3-10	
	T7E8AE19HAWXBVDT	RU 6-Band SMR700/Firstnet-Commercial SMR800-AMPS850 Plus-PCS1900-AWS3 AWS4, biduplexed, 20W, DC powered, WDM, SMF, 4.3-10	
	T7E8SC8A19AFWVAT	RU 6-Band SMR700/Firstnet-Commercial SMR800-AMPS850-PCS1900-AWF, 20W, AC powered, WDM, SMF, 4.3-10	
	T7E8SC8A19AFWVDT	RU 6-Band SMR700/Firstnet-Commercial SMR800-AMPS850-PCS1900-AWF, 20W, DC powered, WDM, SMF, 4.3-10	

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Remote Units

**Table 1**

**Construction Summary** Certification Parameters

Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
**S<sub>Ds</sub> = 2.0g @ z/h = 1.0**

**Notes**  
 Refer to following for certification constraints related to rack mounted components.

**Mounting Summary** Notes

Rigid surface wall mount (Remote Units).

Model Line	Model	UUT Description	UUT
Ultra-High & Very High Power Remote Unit	T67E8AEWVA59T	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 20W, AC powered, WDM, 4.3-10, add-on	
	T67E8AEWVAT	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 20W, AC powered, WDM, 4.3-10	3
	T67E8AEWVD59T	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 20W, DC powered, WDM, 4.3-10, add-on	
	T67E8AEWVDT	RU Low bands 600-SMR700/Firstnet, Commercial SMR800-AMPS850, 20W, DC powered, WDM, 4.3-10	
	T7E8SC8A19AWFWXAT	SDRU HP 10W-20W, SMR700/Firstnet, Commercial SMR800-AMPS850, 1900, 2100, AC powered, WDM, 4.3-10, (min dual-20W or tri-10W)	
	T7E8SC8A19AWFWXDT	SDRU HP 10W-20W, SMR700/Firstnet, Commercial SMR800-AMPS850, 1900, 2100, DC powered, WDM, 4.3-10, (min dual-20W or tri-10W)	
	T67E8AEWXAT	SDRU HP 10W-20W, bands 600-SMR700/Firstnet, 800-850Plus, AC powered, WDM, 4.3-10, (min dual 10W)	
	T67E8AEWXDT	SDRU HP 10W-20W, bands 600-SMR700/Firstnet, 800-850Plus, DC powered, WDM, 4.3-10, (min dual 10W)	
	T67E8AEWXA59T	SDRU HP 10W-20W, bands 600-SMR700/Firstnet, 800-850Plus, AC powered, WDM, 4.3-10, (min dual 10W) Add-on	
	T67E8AEWXD59T	SDRU HP 10W-20W, bands 600-SMR700/Firstnet, 800-850Plus, DC powered, WDM, 4.3-10, (min dual 10W) Add-on	
	T19HAWX2325BXAT	SDRU HP 10W-20W, bands 1900H, AWS neXt, 2300, 2500 TDD, AC powered, WDM, 4.3-10, (min dual 10W)	
	T19HAWX2325BXDT	SDRU HP 10W-20W, bands 1900H, AWS neXt, 2300, 2500 TDD, DC powered, WDM, 4.3-10, (min dual 10W)	
	T2325WXA59T	SDRU HP 10W-20W, bands 2300, 2500 TDD, AC powered, WDM, 4.3-10, (min dual-10W or Single-20W) Add-on	
	T2325WXD59T	SDRU HP 10W-20W, bands 2300, 2500 TDD, DC powered, WDM, 4.3-10, (min dual-10W or Single-20W) Add-on	
	T2325WXA59TH	SDRU HP 10W-20W, bands 2300, 2500 TDD, DC powered, WDM, 4.3-10, (min dual-10W or Single-20W) Add-on, Horizontal	
	T2325WXAT	SDRU HP 10W-20W, bands 2300, 2500 TDD, AC powered, WDM, 4.3-10, (min dual-10W or Single-20W)	
T2325WXDT	SDRU HP 10W-20W, bands 2300, 2500 TDD, DC powered, WDM, 4.3-10, (min dual-10W or Single-20W)		
Medium Power Remote Unit	TRU66WM/AC-WT	RU Single-band MIMO LTE600, Medium power, AC powered, WDM, SC-APC	
	TRU2525WM/AC-WT	RU single band MIMO 2500 TDD, Medium power, AC powered, WDM, SC-APC	
	TRU2525WM/48-WT	RU single band MIMO 2500 TDD, Medium power, DC powered, WDM, SC-APC	
	TRU2525WM/AC-M14T	RU single band MIMO 2500 TDD, Medium power, AC powered, WDM, SC-APC, add-on	
	TRU2525WM/48-M14T	RU single band MIMO 2500 TDD, Medium power, DC powered, WDM, SC-APC, add-on	
	TRU35T35TWM/AC-WT	RU single band MIMO C-BAND 3700-3980MHz 2W, AC, WDM SC-APC, 4.3-10	
	TRM19HAWX2325AT	RU High bands PCS1900H, AWS neXt, WCS2300, 2500 TDD, 33dBm, AC powered, WDM, 4.3-10	4
TRM19HAWX2325DT	RU High bands PCS1900H, AWS neXt, WCS2300, 2500 TDD, 33dBm, DC powered, WDM, 4.3-10		

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Remote Units

**Table 1**

**Construction Summary** Certification Parameters

Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

**Notes**

Refer to following for certification constraints related to rack mounted components.

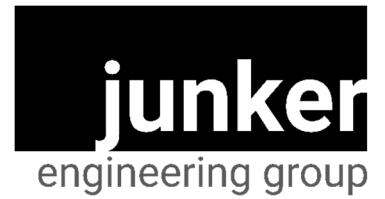
**S<sub>Ds</sub> = 2.0g @ z/h = 1.0**

**Mounting Summary** Notes

Rigid surface wall mount (Remote Units).

Model Line	Model	UUT Description	UUT
Medium Power Remote Unit	TRM7E8AE19HAWXAT	RU Six Band LTE700E, 800-850Plus, 19H, AWS neXt, 33dBm, AC powered, WDM, 4.3-10	
	TRM7E8AE19HAWXDT	RU Six Band LTE700E, 800-850Plus, 19H, AWS neXt, 33dBm, DC powered, WDM, 4.3-10	
	TRM7E8AE19HAWX23AT	RU 7 bands LTE700E, 800-850Plus, 19H, AWS neXt, WCS2300, 33dBm, AC powered, WDM, 4.3-10	
	TRM7E8AE19HAWX23DT	RU 7 bands LTE700E, 800-850Plus, 19H, AWS neXt, WCS2300, 33dBm, DC powered, WDM, 4.3-10	
	TRU67E8AEWM/AC-WT	RU Low bands 600-SMR700/Firstnet, 800-850Plus, 33dBm, AC, WDM, 4.3-10	
	TRU67E8AEWM/AC-14T	RU Low bands 600-SMR700/Firstnet, 800-850Plus, 33dBm, AC, WDM, 4.3-10, add-on	5
	TRU67E8AEWM/48-WT	RU Low bands 600-SMR700/Firstnet, 800-850Plus, 33dBm, DC, WDM, 4.3-10	
	TRU67E8AEWM/48-14T	RU Low bands 600-SMR700/Firstnet, 800-850Plus, 33dBm, DC, WDM, 4.3-10, add-on	
	TRX7E8AE19HAWX23AT	SDRU 1.25W - 2W, bands SMR700/Firstnet, 800, 850plus, 1900, 2100 (AWS-4), 2300, AC powered, WDM, 4.3-10, (min 2 bands license)	
	TRX7E8AE19HAWX23DT	SDRU 1.25W - 2W, bands SMR700/Firstnet, 800, 850plus, 1900, 2100 (AWS-4), 2300, DC powered, WDM, 4.3-10, (min 2 bands license)	
	TRU67E8AEWX/AC-WT	SDRU 1.25W - 2W, bands 600-SMR700/Firstnet, 800-850Plus, AC powered, WDM, 4.3-10, (min 2 bands licenses)	
	TRU67E8AEWX/AC-14T	SDRU 1.25W - 2W, bands 600-SMR700/Firstnet, 800-850Plus, AC,WDM, 4.3-10, add-on(min 2 bands licenses)	
	TRU67E8AEWX/48-WT	SDRU 1.25W - 2W, bands 600-SMR700/Firstnet, 800-850Plus, DC, WDM, 4.3-10 (min 2 bands licenses)	
	TRU67E8AEWX/48-14T	SDRU 1.25W - 2W, bands 600-SMR700/Firstnet, 800-850Plus, DC, WDM, 4.3-10, add-on (min 2 bands licenses)	
	TRX19HAWX2325AT	SDRU 1.25W - 2W, bands PCS1900H, AWS neXt, WCS2300, 2500 TDD AC, WDM, 4.3-10 (min 2 bands licenses)	
	TRX19HAWX2325DT	SDRU 1.25W - 2W, bands PCS1900H, AWS neXt, WCS2300, 2500 TDD DC, WDM, 4.3-10 (min 2 bands licenses)	
	TRU7FL8P9PWE/AC-WT	RU Tri-Band PS700FULL+LTE/PS800/900PS+Paging, Enhanced Power, AC, WDM, 4.3-10, RED Enclosure	
	TRU7FL8P9PWE/48-WT	RU Tri-Band PS700FULL+LTE/PS800/900PS+Paging, Enhanced Power, DC, WDM, 4.3-10, RED Enclosure	
	TRU9PPWE/AC-WT	RU Single Band 900PS+Paging, Enhanced Power, AC, WDM, 4.3-10, RED Enclosure	
	TRU8PWE/AC-WT	RU Single Band 800 Public Safety, Enhanced Power, AC powered, WDM, SMF, 4.3-10, RED Enclosure	
	TRU8PWE/48-WT	RU Single Band 800 Public Safety, Enhanced Power, DC powered, WDM, SMF, 4.3-10, RED Enclosure	
	TRU7FLWE/AC-WT	RU Single Band PS700FULL+LTE Public Safety, Enhanced Power, AC powered, WDM, SMF, 4.3-10, RED Enclosure	
	TRU7FLWE/48-WT	RU Single Band PS700FULL+LTE Public Safety, Enhanced Power, DC powered, WDM, SMF, 4.3-10, RED Enclosure	
	TRU7FL8PWE/AC-WT	RU Dual Band PS700FULL+LTE/PS800, Enhanced Power, AC, WDM, 4.3-10, RED Enclosure	
TRU7FL8P9PWM/AC-WT	RU Tri-Band PS700FULL+LTE/PS800/900PS+Paging, 2W, AC, WDM, 4.3-10, RED Enclosure		
TRU7FL8P9PWM/48-WT	RU Tri-Band PS700FULL+LTE/PS800/900PS+Paging, 2W, DC, WDM, 4.3-10, RED Enclosure		
TRU7FL8PWM/AC-WT	RU Dual Band PS700FULL+LTE/PS800, 2W, AC, WDM, 4.3-10, RED Enclosure		
TRU7FL8PWM/48-WT	RU Dual Band PS700FULL+LTE/PS800, 2W, DC, WDM, 4.3-10, RED Enclosure		

# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Remote Units

**Table 1**

Construction Summary	Certification Parameters
----------------------	--------------------------

Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

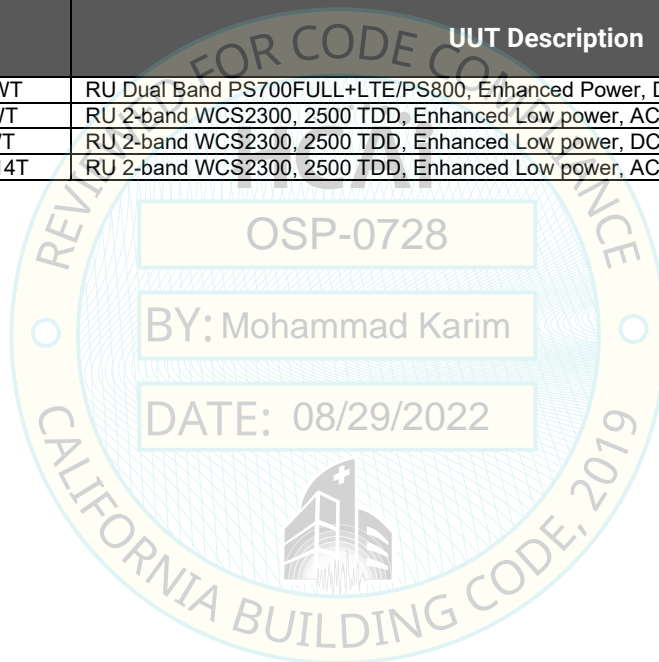
**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
 **$S_{Ds} = 2.0g$  @  $z/h = 1.0$**

**Notes**  
Refer to following for certification constraints related to rack mounted components.

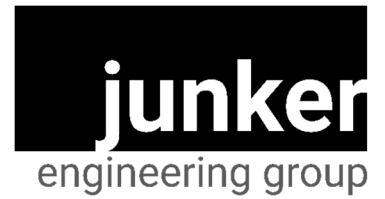
Mounting Summary	Notes
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Rigid surface wall mount (Remote Units).

Model Line	Model	UUT Description	UUT
Medium Power Remote Unit	TRU7FL8PWE/48-WT	RU Dual Band PS700FULL+LTE/PS800, Enhanced Power, DC, WDM, 4.3-10, RED Enclosure	
	TRU2325WE/AC-WT	RU 2-band WCS2300, 2500 TDD, Enhanced Low power, AC powered, WDM, SC-APC	
	TRU2325WE/48-WT	RU 2-band WCS2300, 2500 TDD, Enhanced Low power, DC powered, WDM, SC-APC	
	TRU2325WE/AC-M14T	RU 2-band WCS2300, 2500 TDD, Enhanced Low power, AC powered, WDM, SC-APC, add-on	



# SPECIAL SEISMIC CERTIFICATION CERTIFIED COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Rack

**Table 2**

Construction Summary	Certification Parameters
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Chatsworth rack without panels or doors. Frame made of carbon steel.

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

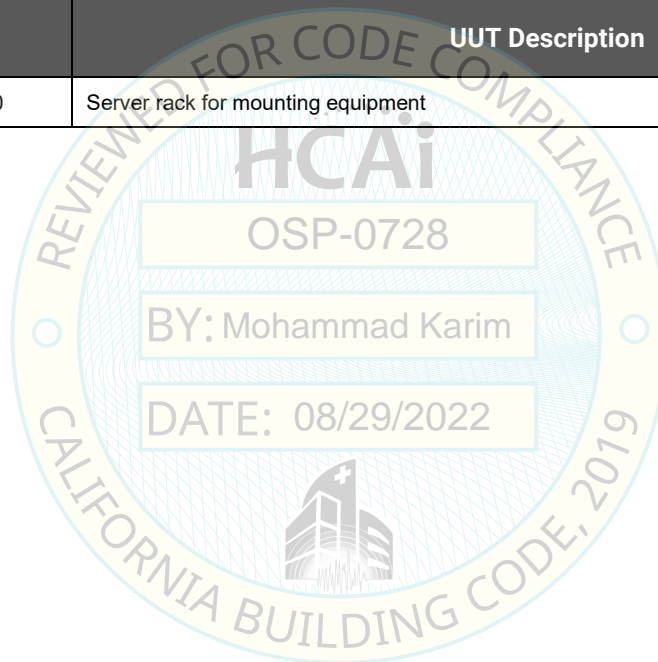
**S<sub>Ds</sub> = 2.0g @ z/h = 1.0**

**Notes**  
 Refer to following for certification constraints related to rack mounted components.

Mounting Summary	Notes
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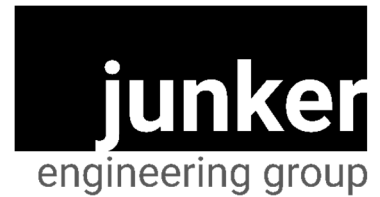
Rigid Floor Mounted (Rack).

Model Line	Model	UUT Description	UUT
Vertical Cabinet	Z4-22N-1000-C00	Server rack for mounting equipment	1





# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUB-COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Rack Mounted Subcomponents

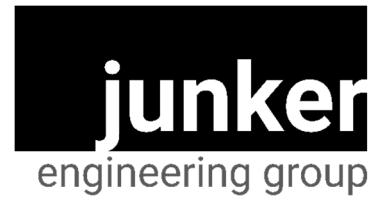
**Table 3**

Notes	Certification Parameters
Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.	<b>Building Code:</b> CBC 2022 <b>Component Importance Factor:</b> $I_p = 1.5$ <b><math>S_{DS} = 2.0g @ z/h = 1.0</math></b>

Mounting Summary	Notes
Subracks mounted within Chatsworth rack. Other sub-components mounted within subracks.	

Model	Description	UUT
<b>Subracks</b>		
SUB-HPOI	19" Subrack for the Passive modules	
SUB-TRX-PSU5N	19" Subrack for the Optical Modules (with 5 connectors Vdc, New-gen)	1
SUB-PSUN-MU	19" Subrack for the AC PSU Modules for Master Unit, New-gen	1
SUB-PSUN-MU/48	19" Subrack for the DC PSU Modules for Master Unit, New-gen	
SUB-RPSU-MU/AC	19" Subrack for the AC Remote PSU Modules and DC Distribution	
SUB-RPSU2-MU/AC	19" Subrack for the AC Remote PSU Modules and DC Distribution Class 2	
SUB-RPSU-MU/48	19" Subrack for the DC Remote PSU Modules and DC Distribution	
SUB-RPSU2-MU/48	19" Subrack for the DC Remote PSU Modules and DC Distribution Class 2	
<b>Master Unit Modules</b>		
TPANEL-7TE	Blank Panel for Master Unit Sub-rack - 14TE	1
TRI-SC4W-LO19HAWX	Blank Panel for Master Unit Sub-rack - 7TE	1
TRI-SC4W-7S8AHI	Triplexer Low, Extended PCS + DL AWS4, Extended AWS + UL AWS4, 4Way S/C - 14TE	
TRI-SC4W-8S9SHI	Triplexer SMR700/AMPS/High bands with 4 Way Combiner/Splitter - 14TE	
TRI-Lo19HAWX	Triplexer SMR800, SMR900, High bands, 4Way S/C - 14TE	
TRI-2325TR	Triplexer Low, Extended PCS + DL AWS4, Extended AWS + UL AWS4 - 7TE	1
TESA-UW2-L	Triplexer 2300WCS, 2500 TDD, TDD Reference (7TE)	1
TEPTA-UW-LH/2325	Esaplexer SMR700 extended, AMPS+SMR800, Extended PCS+H block, Extended AWS4, WCS2300, Low Loss - 14TE	
TEPTA-UW-LH23/25	Eptaplexer for cascade 7-band solution, all DL plus LTE700, AMPS+SMR800commercial, PCS, AWS3 on UL1 and WCS2300, 2500TR on UL2	
TSC2W-U	Eptaplexer for cascade 7-band solution, all DL plus LTE700, AMPS+SMR800commercial, PCS, AWS3, WCS2300 on UL1 and 2500TR on UL2	
TSC2W-X	2 Ways Combiner/Splitter Ultra-wide band (7TE) 617- 2850 MHz - 7TE	
TSC4W-U	2 Ways Combiner/Splitter Ultra-wide band (7TE) 2300- 4.2GHZ	1
TSC4W-X	4 Ways Combiner/Splitter Ultra-wide band (7TE) 617- 2850 MHz - 7TE	
TCM3-4	4 Ways Combiner/Splitter Ultra-wide band (7TE) 2300- 4.2GHZ	
TSW4	TEKO CAPACITY MANAGER 3x4 - 14TE	
TMBC-19HAWX2325TR	CONFIGURABLE RF SWITCH 1:4 - 7TE	
TMBC-LO1925TR	MASTER BAND COMBINER Extended PCS + DL AWS4, Extended AWS + UL AWS4, WCS2300, 2500 TDD - 14TE	
TMBC-67E8AE	MASTER BAND COMBINER LO1925TR - 14TE	
TMBC-35WTR	MASTER BAND COMBINER LTE600, SMR700/Firstnet, 800-850Plus - 7TE	
TDIP-LO/HI2325-D-R	Master Band combiner 35TDD (7TE) 3300-4200 - 7TE	
TDIP-LOHI/2325-D-R	Diplexer LTE600, LTE700, AMPS+SMR800commercial/ PCS+H block, Extended AWS4, WCS2300, 2500TR - 7TE	
TDIP-LOHI23/25-D-R	Diplexer LTE600, SMR700, AMPS+SMR800commercial, PCS+H block, Extended AWS4, / WCS2300, 2500TR - 7TE	
TSYNC	Diplexer LTE600, SMR700, AMPS+SMR800commercial,PCS+H block, Extended AWS4,WCS2300 / 2500TR - 7TE	1
TSYNC-N	TDD Synchronizer and Reference Module (7TE)	

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUB-COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Rack Mounted Subcomponents

**Table 3**

**Notes** **Certification Parameters**

Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

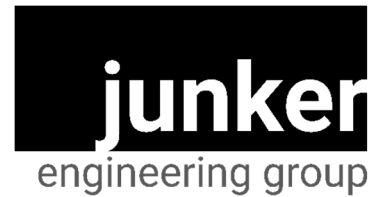
**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
 **$S_{DS} = 2.0g @ z/h = 1.0$**

**Mounting Summary** **Notes**

Subracks mounted within Chatsworth rack. Other sub-components mounted within subracks.

Model	Description	UUT
<b>CPRI Point of Interface</b>		
TCPRIPOI-6-M	Teko CPRI POI module for LTE600, 4 x SFP+, Dual	
TCPRIPOI-7SL-M	Teko CPRI POI module for SMR700-Low, 4 x SFP+, Dual	
TCPRIPOI-7SH-M	Teko CPRI POI module for SMR700 High, 4 x SFP+, Dual	
TCPRIPOI-8AE-M	Teko CPRI POI module for SMR800+AMPS, 4 x SFP+, Dual	1
TCPRIPOI-19-M	Teko CPRI POI module for PCS1900, 4 x SFP+, Dual	1
TCPRIPOI-AWE-M	Teko CPRI POI module for AWS Extended band, 4 x SFP+, Dual	
TCPRIPOI-23-M	Teko CPRI POI module for WCS2300, 4 x SFP+, Dual	
TCPRIPOI-25L-M	Teko CPRI POI module for 2500 TDD LBS, 4 x SFP+, Dual	
TCPRIPOI-25M-M	Teko CPRI POI module for 2500 TDD MBS, 4 x SFP+, Dual	
TCPRIPOI-25U-M	Teko CPRI POI module for 2500 TDD UBS, 4 x SFP+, Dual	
<b>Low Power Point of Interface</b>		
TLPPOI-LB-MSE	Low Power Active POI module for Low Band, MIMO, Simplex, With Optional gain stage - 7TE	
TLPPOI-HB-MSE	Low Power Active POI module for High Band, MIMO, Simplex, With Optional gain stage - 7TE	1
TLPPOI-VB-MSE	Low Power Active POI module for Very high Band, MIMO, Simplex, With Optional gain stage - 7TE	
TDPX-8A-M	Teko MIMO Duplexer 8A (B5), MIMO, 7TE	
TDPX-19-M	Teko MIMO Duplexer 19 (B25), MIMO, 7TE	1
TDPX-AWF-M	Teko MIMO Duplexer AWF (B66), MIMO, 7TE	
TDPX-7SH-M	Teko MIMO Duplexer 7SH (B13), MIMO, 7TE	
<b>Active Point of Interface</b>		
TAPOI-6-F-4	Teko Active POI for LTE600 band- Flexi, 4.3-10	
TAPOI-AWF-F-4	Teko Active POI for AWS-3 band, Flexi, 4.3-10	
TAPOI-AMPS-F-4	Teko Active POI for AMPS band- Flexi, 4.3-10	1
TAPOI-PCS-F-4	Teko Active POI for PCS band- Flexi, 4.3-10	
TAPOI-SMR700H-F-4	Teko Active POI for LTE 700 High band- Flexi, 4.3-10	
TAPOI-SMR700L-F-4	Teko Active POI for LTE 700 Low band- Flexi, 4.3-10	
TAPOI-SMR800-F-4	Teko Active POI for SMR800 band- Flexi, 4.3-10	
TAPOI-SMR900-F-4	Teko Active POI for SMR900 band- Flexi, 4.3-10	
TAPOI-WCS-F-4	Teko Active POI for WCS band- Flexi, 4.3-10	1
TAPOI-7FL-F-4	Teko Active POI module for Public Safety 700 LTE DL: 758-775MHz, UL: 788-805MHz, Flexi, 4.3-10	
TAPOI-7FC-F-4	Teko Active Point of Interface for Public Safety 700 MHz Canada - Flexi, 4.3-10	
TAPOI-9PP-F-4	Teko Active Point of Interface for Public Safety 900PS+Paging - Flexi, 4.3-10	
TAPOI-AWS4-F-4	Teko Active POI for AWS-4 band- Flexi, 4.3-10	

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUB-COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Rack Mounted Subcomponents

**Table 3**

**Notes** **Certification Parameters**

Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

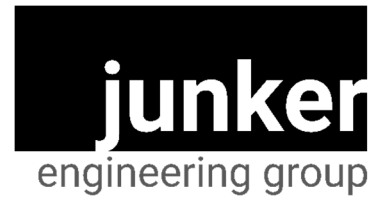
**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
 **$S_{DS} = 2.0g @ z/h = 1.0$**

**Mounting Summary** **Notes**

Subracks mounted within Chatsworth rack. Other sub-components mounted within subracks.

Model	Description	UUT
<b>Active High Power Point of Interface</b>		
TDTPOI-6-D	Active DAS Tray Point of Interface 600MHz, Dual	
TDTPOI-8A-D	Active DAS Tray Point of Interface AMPS850, Dual	
TDTPOI-8S-D	Teko Active DAS Tray Point of Interface, 800 SMR Band, Dual, DIN	
TDTPOI-19-D	Active DAS Tray Point of Interface PCS1900, Dual	
TDTPOI-7SL-D	Active DAS Tray Point of Interface SMR700 Low, Dual	1
TDTPOI-7SH-D	Active DAS Tray Point of Interface SMR700 High, Dual	
TDTPOI-23-D	Active DAS Tray Point of Interface, WCS2300 band, Dual	
TDTPOI-AWF-D	Teko Active DAS Tray Point of Interface, AWS-3 band, Dual	
TDTPOI-7FL-D	Active DAS Tray Point of Interface, Public Safety 700 LTE DL: 758-775MHz, UL: 788-805MHz, Dual	
TDTPOI-25-D	Teko Active DAS Tray Point of Interface, 2500 TDD, Dual	1
TDTPOI-25-D-LL	Teko Active DAS Tray Point of Interface, 2500 TDD, Dual, Low Loss	
TDTPOI-35T-D-LL	Teko Active DAS Tray Point of Interface, 35-TDD, C Band TDD,	
TDTPOI-AWS4-D	Teko Active DAS Tray Point of Interface, AWS-4 band, Dual	
<b>Master Unit Power Supply &amp; Supervision Modules</b>		
TPSU/AC	Power Supply Unit AC	
TPSU/AC-30-1K	Power Supply Unit AC 1KW	1
TPSU/48	Power Supply Unit 48VDC	
TPSU/48-30-1K	Power Supply Unit 48VDC 1KW	
TRPSU/AC-58-1.2K	Power Supply Unit AC for Remote Power Supply	
TRPSU/48-58-2K	Power Supply Unit 48VDC for Remote Power Supply	
TSPV-EBB	Supervision module Evo, Backup	1
TEA-116	External Alarm module with 16 inputs	
<b>Master Unit Power Supply &amp; Supervision Modules</b>		
TTRU1W-S-M	Optical Tx/Rx for Master Unit, 1 Tx, 1 Rx, WDM, SC-APC, Ultra-wideband, with Monitor ports	
TTRU2W-S-M	Optical Tx/Rx for Master Unit, 1 Tx, 2 Rx, WDM, SC-APC, Ultra-wideband, with Monitor ports	
TTRU4W-S-M	Optical Tx/Rx for Master Unit, 1 Tx, 4 Rx, WDM, SC-APC, Ultra-wideband, with Monitor ports	1
TTRU2W-S-M-C2	Optical Tx/Rx for Master Unit, 1 Tx, 2 Rx, WDM, SC-APC, Ultra-wideband, with Monitor ports, Cascade solution, 2UL	1
TTRX24W-S-M	OTRx MU 3.3-4.2GHZ 2TX 4RX WDM SC-APC RF MONITOR	
TTRUPTPMW-S	Point To Point link Master, 617-2700MHz, WDM, SC-APC	
TTRUPTPSW-S	Point To Point link Secondary, 617-2700MHz, WDM, SC-APC	
TTRUPTPSW-S-1	Point To Point link Secondary, 617-2700MHz, WDM, SC-APC, without splitter	
TTRUPTPMN23-S	Point To Point link Master, 617-2700MHz, NO WDM CH23, SC-APC	
TTRUPTPMN27-S	Point To Point link Master, 617-2700MHz, NO WDM CH27, SC-APC	
TTRUPTPMN31-S	Point To Point link Master, 617-2700MHz, NO WDM CH31, SC-APC	
TTRUPTPMN35-S	Point To Point link Master, 617-2700MHz, NO WDM CH35, SC-APC	
TTRUPTPSN25-S	Point To Point link Secondary, 617-2700MHz, NO WDM CH25, SC-APC	
TTRUPTPSN29-S	Point To Point link Secondary, 617-2700MHz, NO WDM CH29, SC-APC	

# SPECIAL SEISMIC CERTIFICATION CERTIFIED SUB-COMPONENT SUMMARY



**Manufacturer** JMA Wireless  
**Certifying Engineer** Junker Engineering Group  
**Model Line:** Wireless Distributed Antenna Systems  
**Table Description** Rack Mounted Subcomponents

**Table 3**

**Notes** **Certification Parameters**

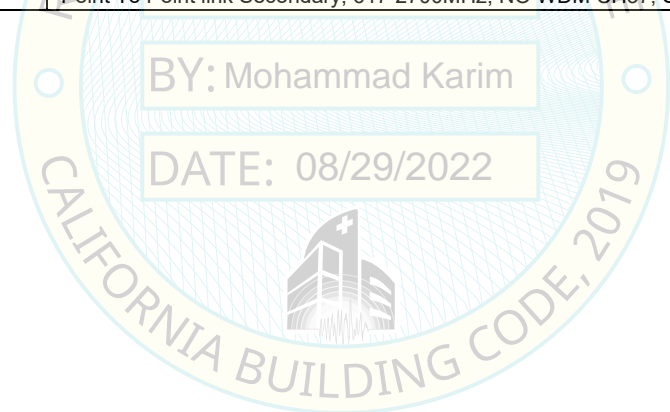
Model numbers uniquely identify manufacturer, dimensions, construction materials, and configuration.

**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
 **$S_{Ds} = 2.0g @ z/h = 1.0$**

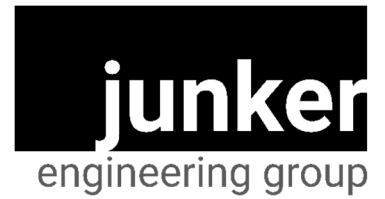
**Mounting Summary** **Notes**

Subracks mounted within Chatsworth rack. Other sub-components mounted within subracks.

Model	Description	UUT
TTRUPTPSN33-S	Point To Point link Secondary, 617-2700MHz, NO WDM CH33, SC-APC	
TTRUPTPSN37-S	Point To Point link Secondary, 617-2700MHz, NO WDM CH37, SC-APC	
TTRUPTPMN39-S	Point To Point link Master, 617-2700MHz, NO WDM CH39, SC-APC	
TTRUPTPSN41-S	Point To Point link Secondary, 617-2700MHz, NO WDM CH41, SC-APC	
TTRUPTPSN41-S-1	Point To Point link Secondary, 617-2700MHz, NO WDM CH41, SC-APC, without splitter	
TTRUPTPSN25-S-1	Point To Point link Secondary, 617-2700MHz, NO WDM CH25, SC-APC, without splitter	
TTRUPTPSN29-S-1	Point To Point link Secondary, 617-2700MHz, NO WDM CH29, SC-APC, without splitter	
TTRUPTPSN33-S-1	Point To Point link Secondary, 617-2700MHz, NO WDM CH33, SC-APC, without splitter	
TTRUPTPSN37-S-1	Point To Point link Secondary, 617-2700MHz, NO WDM CH37, SC-APC, without splitter	



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY



**Manufacturer:** JMA Wireless  
**Model Line:** Wireless Distributed Antenna Systems  
**Model Number:** Z4-22N-1000-C00  
**Table Description:** UUT Summary

**UUT 1**

**Construction Summary:**

Rack without panels or doors. Frame made of carbon steel. Subracks made from aluminum.

**Test Parameters:**

**Building Code:** CBC 2022  
**Component Importance Factor:**  $I_p = 1.5$   
**Test Criteria:** AC-156

**Options Summary:**

TPANEL-7TE, TRI-SC4W-LO19HAWX, TRI-2325TR, TESA-UW2-L, TSC4W-U, TSYNC, TCPRIPOI-8AE-M, TCPRIPOI-19-M, TLPPOI-HB-MSE, TDPX-19-M, TAPOI-AMPS-F-4, TAPOI-WCS-F-4, TDTPOI-7SL-D, TDTPOI-25-D, TPSU/AC-30-1K, TSPV-EBB, TTRU4W-S-M, TTRU2W-S-M-C2, SUB-TRX-PSU5N, SUB-PSUN-MU

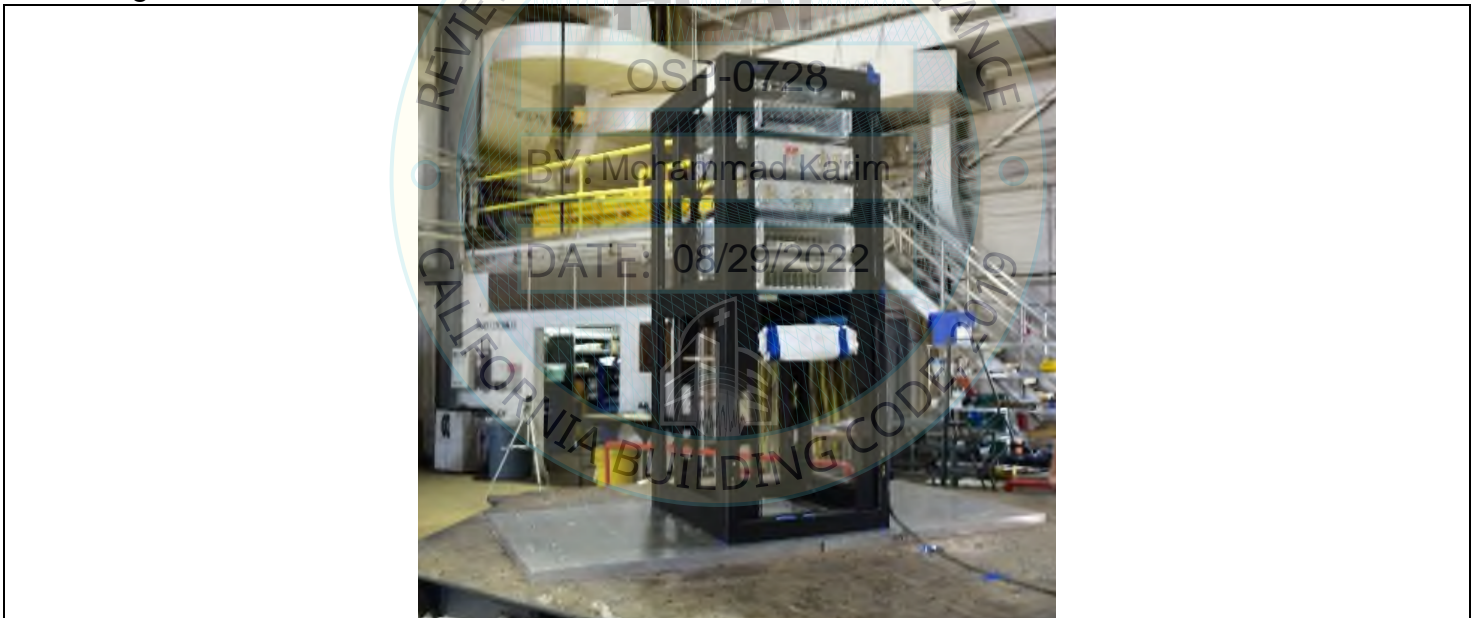
**Mounting Summary:**

Chatsworth rack is rigid floor mounted with four (4) ½"-13 SAE grade 5 bolts, washer, and lock washers torqued to 50ft-lbs. Each subrack is mounted to the Chatsworth rack with four (4) Phillips-head M6-1 bolts, hand tightened.

**Notes:**

Contents were included in testing per operating conditions.

**UUT Image**



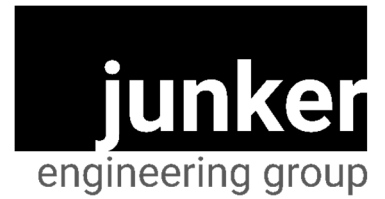
**UUT Properties**

Dimensions (in)			Weight (lb)	Min. First Natural Frequency (Hz)		
Height	Width	Depth		F-B	S-S	Vert
82.5	31.5	41.0	796	8.82	9.31	N/A

**Unit maintained structural integrity and remained operational**  
per manufacturer requirement when subjected to the following test parameters

$S_{DS}$ (g)	z/h	$A_{FLX-H}$ (g)	$A_{RIG-H}$ (g)	$A_{FLX-V}$ (g)	$A_{RIG-V}$ (g)
2.0	1.0	3.20	2.40	1.33	0.53

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY



**Manufacturer:** JMA Wireless  
**Model Line:** Wireless Distributed Antenna Systems  
**Model Number:** T19HAWX2325BVAT  
**Table Description:** UUT Summary

**UUT 2**

**Construction Summary:**

High power remote unit made from aluminum. IP66/Type 4 enclosure.

**Options Summary:**

**Test Parameters:**

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

**Test Criteria:** AC-156

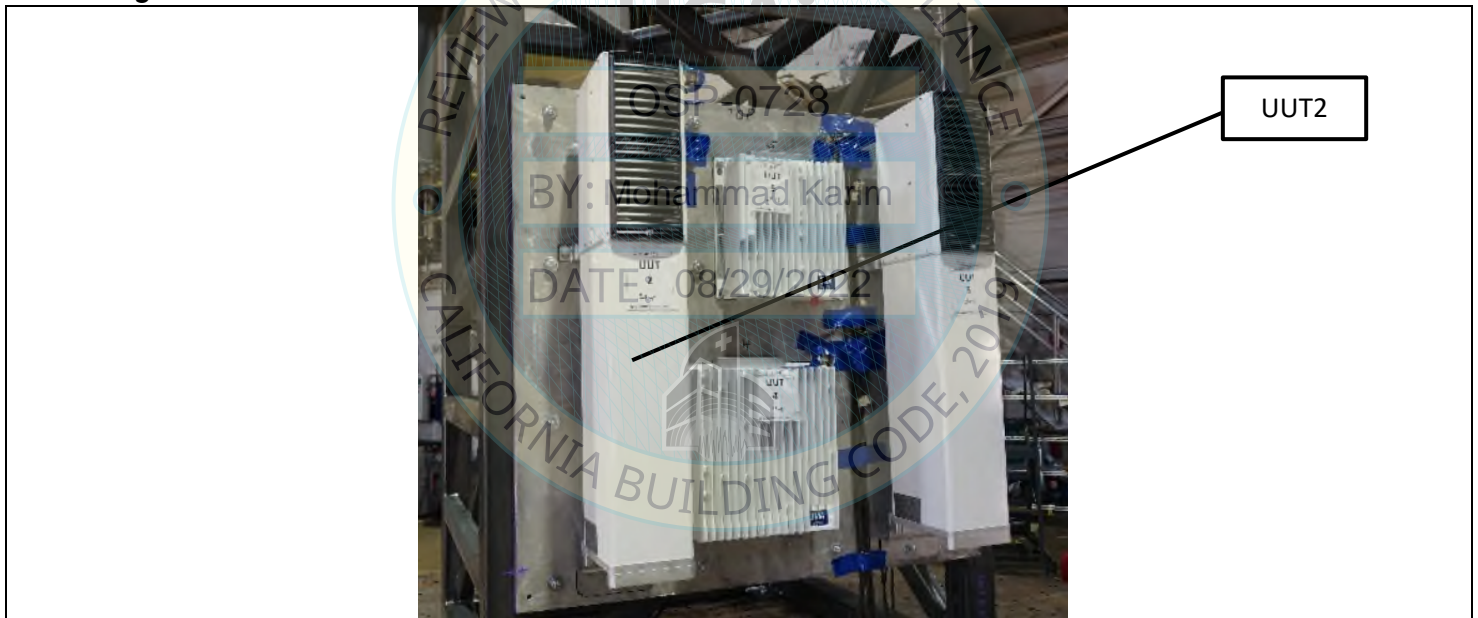
**Mounting Summary:**

Rigid wall mounted using two (2) 5/16"-18 SAE grade 5 hex bolts, washers, and lock washers torqued to 15ft.-lbs, and one (1) 1/2"-13 SAE grade 5 hex bolts, washer, and lock washers torqued to 55ft.-lbs.

**Notes:**

Contents were included in testing per operating conditions.

**UUT Image**



**UUT Properties**

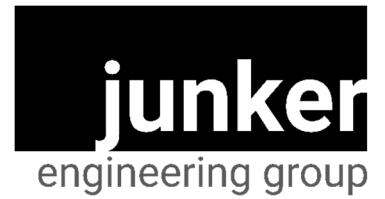
Dimensions (in)			Weight (lb)	Min. First Natural Frequency (Hz)		
Height	Width	Depth		F-B	S-S	Vert
41.0	7.0	9.5	92	N/A	N/A	N/A

**Unit maintained structural integrity and remained operational**

per manufacturer requirement when subjected to the following test parameters

$S_{DS}$ (g)	z/h	$A_{FLX-H}$ (g)	$A_{RIG-H}$ (g)	$A_{FLX-V}$ (g)	$A_{RIG-V}$ (g)
2.0	1.0	3.20	2.40	1.33	0.53

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY



**Manufacturer:** JMA Wireless  
**Model Line:** Wireless Distributed Antenna Systems  
**Model Number:** T67E8AEWVAT  
**Table Description:** UUT Summary

**UUT 3**

**Construction Summary:**

High power remote unit. IP66/Type 4 enclosure.

**Options Summary:**

**Test Parameters:**

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

**Test Criteria:** AC-156

**Mounting Summary:**

Rigid wall mounted using two (2) 5/16"-18 SAE grade 5 hex bolts, washers, and lock washers torqued to 15ft.-lbs, and one (1) 1/2"-13 SAE grade 5 hex bolts, washer, and lock washers torqued to 55ft.-lbs.

**Notes:**

Contents were included in testing per operating conditions.

**UUT Image**



**UUT Properties**

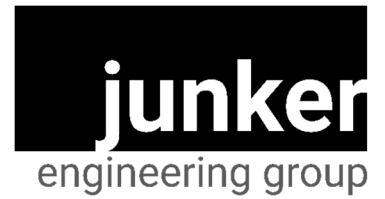
Dimensions (in)			Weight (lb)	Min. First Natural Frequency (Hz)		
Height	Width	Depth		F-B	S-S	Vert
41.0	7.0	9.5	88	N/A	N/A	N/A

**Unit maintained structural integrity and remained operational**

per manufacturer requirement when subjected to the following test parameters

$S_{DS}$ (g)	z/h	$A_{FLX-H}$ (g)	$A_{RIG-H}$ (g)	$A_{FLX-V}$ (g)	$A_{RIG-V}$ (g)
2.0	1.0	3.20	2.40	1.33	0.53

# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY



**Manufacturer:** JMA Wireless  
**Model Line:** Wireless Distributed Antenna Systems  
**Model Number:** TRM19HAWX2325AT  
**Table Description** **UUT Summary**

**UUT 4**

**Construction Summary:**

Medium power remote unit. IP32 enclosure.

**Options Summary:**

**Test Parameters:**

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

**Test Criteria:** AC-156

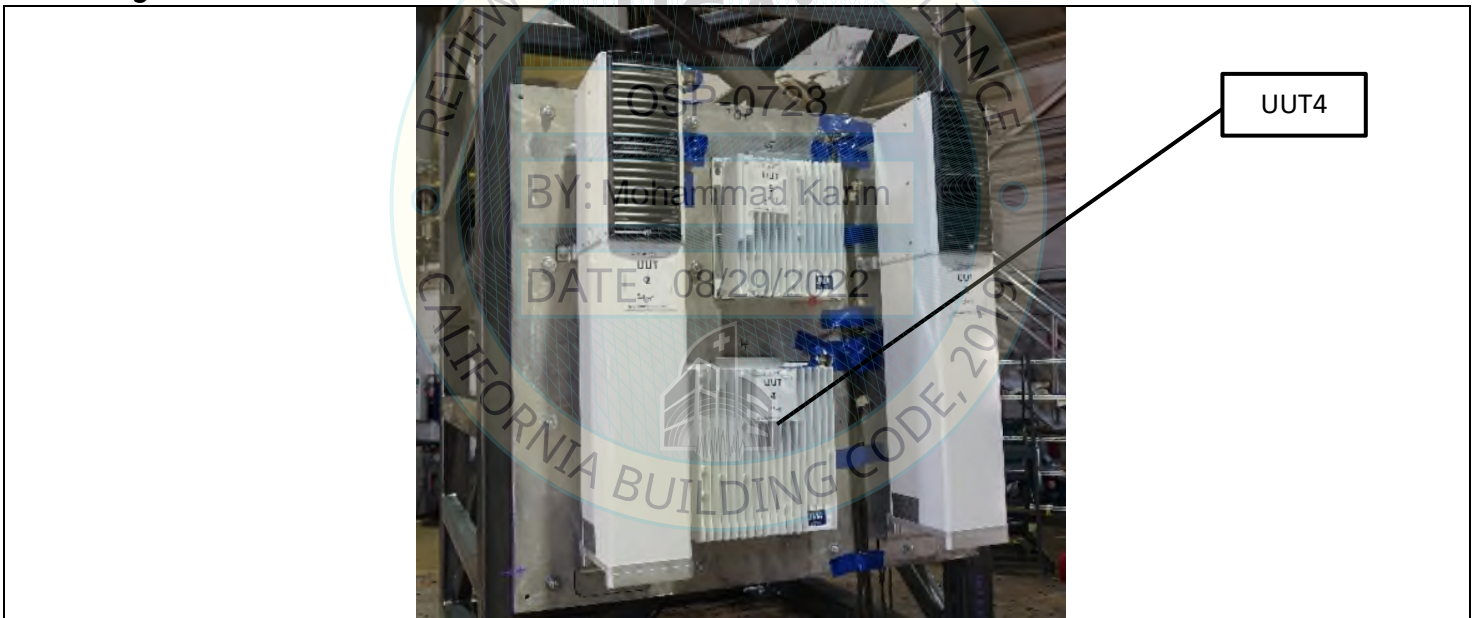
**Mounting Summary:**

Rigid wall mounted using four (4) 5/16"-18 SAE grade 5 hex bolts, washers, and lock washers torqued to 15ft.-lbs

**Notes:**

Contents were included in testing per operating conditions.

**UUT Image**



**UUT Properties**

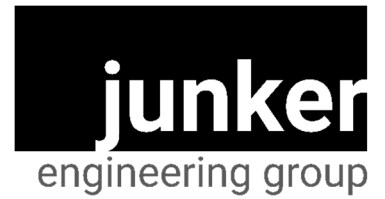
Dimensions (in)			Weight (lb)	Min. First Natural Frequency (Hz)		
Height	Width	Depth		F-B	S-S	Vert
16.0	15.5	6.0	38	N/A	N/A	N/A

**Unit maintained structural integrity and remained operational**  
 per manufacturer requirement when subjected to the following test parameters

$S_{DS}$ (g)	z/h	$A_{FLX-H}$ (g)	$A_{RIG-H}$ (g)	$A_{FLX-V}$ (g)	$A_{RIG-V}$ (g)
2.0	1.0	3.20	2.40	1.33	0.53



# SPECIAL SEISMIC CERTIFICATION UUT SUMMARY



**Manufacturer:** JMA Wireless  
**Model Line:** Wireless Distributed Antenna Systems  
**Model Number:** TRU67E8AEWM/AC-14T  
**Table Description** UUT Summary

**UUT 5**

**Construction Summary:**

Medium power remote unit. IP32 enclosure.

**Options Summary:**

**Test Parameters:**

**Building Code:** CBC 2022

**Component Importance Factor:**  $I_p = 1.5$

**Test Criteria:** AC-156

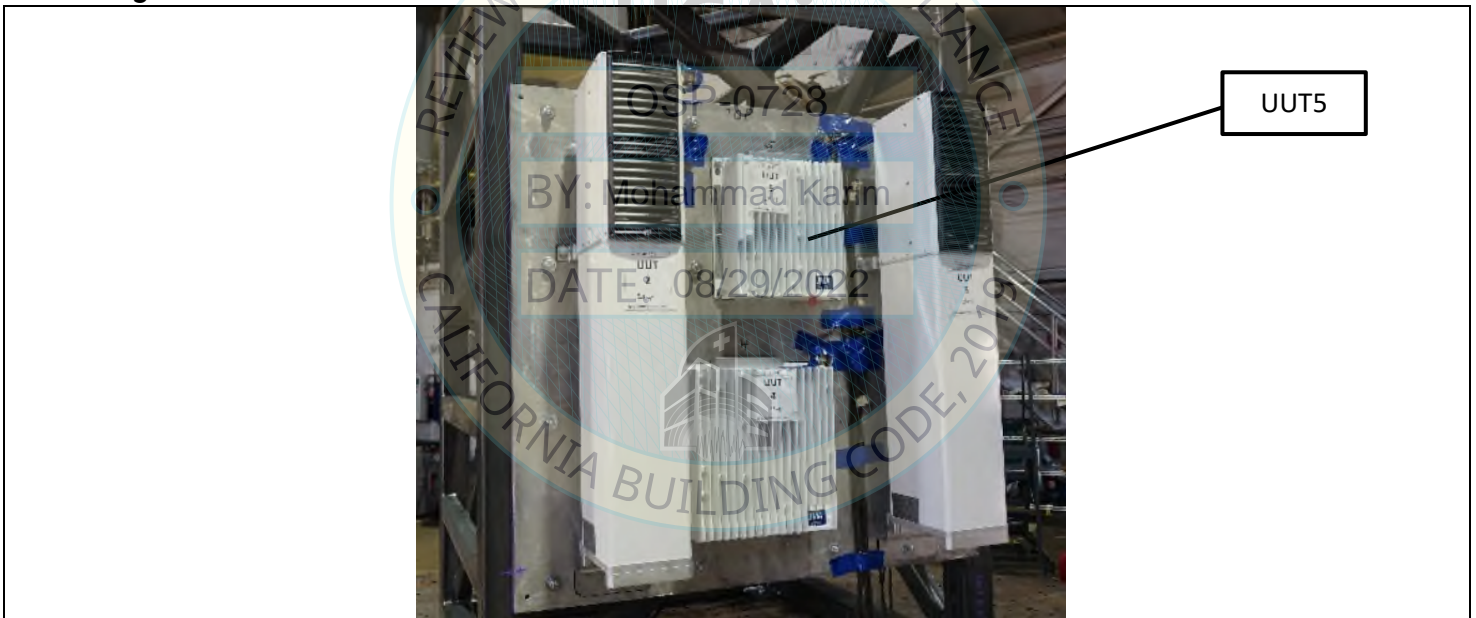
**Mounting Summary:**

Rigid wall mounted using four (4) 5/16"-18 SAE grade 5 hex bolts, washers, and lock washers torqued to 15ft.-lbs.

**Notes:**

Contents were included in testing per operating conditions.

**UUT Image**



**UUT Properties**

Dimensions (in)			Weight (lb)	Min. First Natural Frequency (Hz)		
Height	Width	Depth		F-B	S-S	Vert
14.0	13.8	4	28	N/A	N/A	N/A

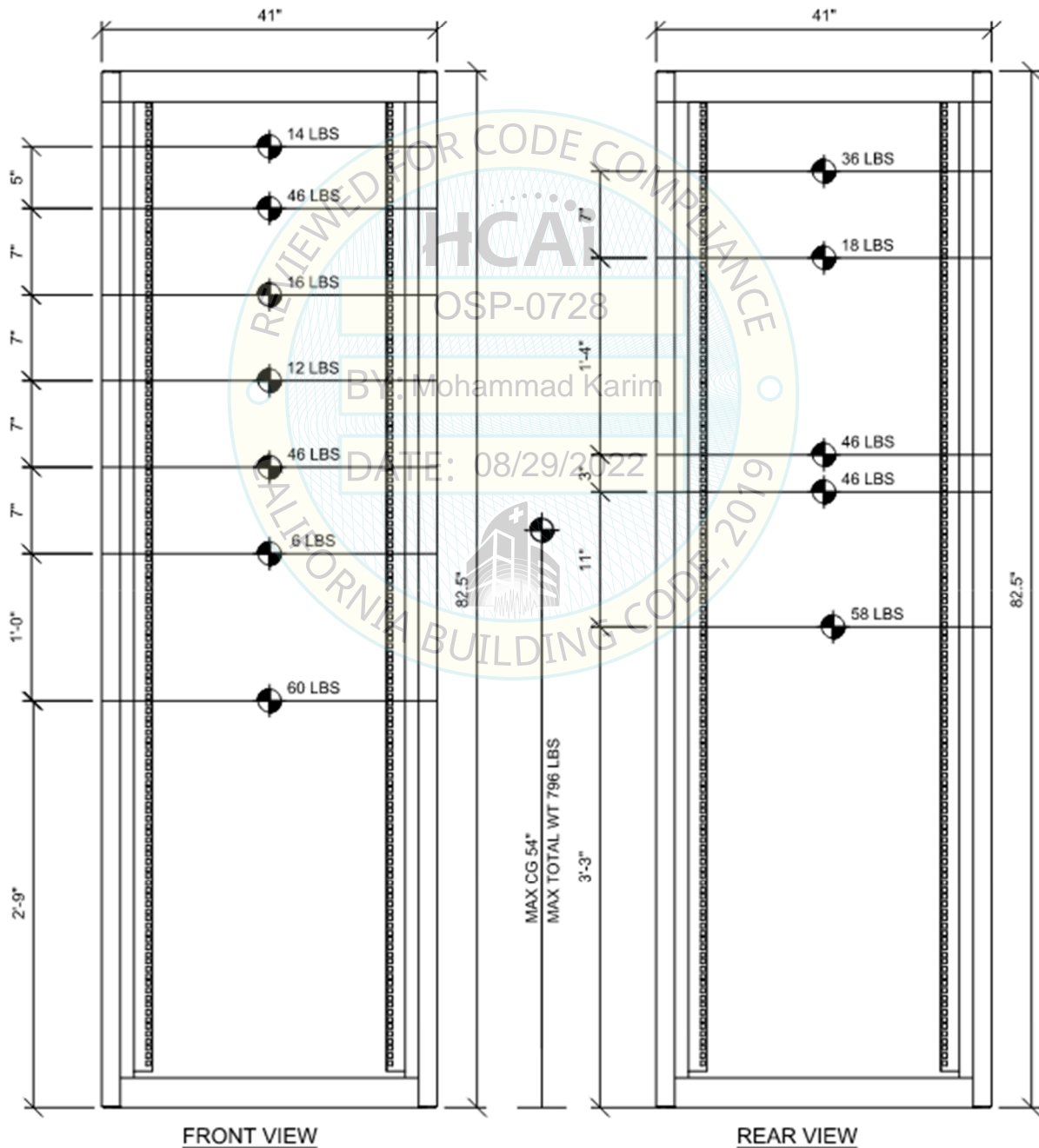
**Unit maintained structural integrity and remained operational**  
 per manufacturer requirement when subjected to the following test parameters

$S_{DS}$ (g)	z/h	$A_{FLX-H}$ (g)	$A_{RIG-H}$ (g)	$A_{FLX-V}$ (g)	$A_{RIG-V}$ (g)
2.0	1.0	3.20	2.40	1.33	0.53

## Certified Rack Installation Parameters

**NOTES:**

1. TESTED RACK: CHATSWORTH VERTICAL CABINET FRAME, PART NUMBER Z4-22N-1000-C00 DIM: 31.5"x41"x82.5". CABINET DOES NOT INCLUDE DOORS OR ACCESSORY PANELS.
2. TOTAL WEIGHT OF RACK = 384 LBS.
3. DRAWING SHOWS THE ALLOWABLE INSTALLATION LOCATIONS FOR ALL CERTIFIED PRODUCTS.
4. OTHER MANUFACTURER'S EQUIPMENT (NOT INCLUDED IN THIS OSP) MAY BE INSTALLED IN THE RACK WITH THE FOLLOWING RESTRICTIONS:
  - MAXIMUM TOTAL WEIGHT INSTALLED IN RACK: 404 LBS.
  - OVERALL CG HEIGHT AND WEIGHT MUST BE LESS THAN OR EQUAL TO THAT SHOWN BELOW.
5. SUBRACKS MAY BE INSTALLED UP TO MAXIMUM HEIGHT INDICATED BELOW.



Model Number Nomenclature Reference

REMOTE UNIT 3 bands LOW/ENHANCED/MEDIUM POWER

Commercial name	Description	
TRUxcp/zz-kkkj	TRU	Teko Telecom Remote Unit
	x =	<b>Operating band:</b> 6: LTE600 (DL: 617-652MHz, UL: 663-698MHz) 7S: SMR700 (DL: 728-757MHz ; UL: 698-716+776-787MHz) 7E: SMR700 extended (DL: 728-768MHz ; UL: 698-716+777-798MHz) 7F: Public Safety 700 (DL: 763-775MHz; UL: 793-805MHz) 7FL: Public Safety 700 (LTE) (DL: 758-775MHz; UL: 788-805MHz) 8S: SMR800 (DL: 851-869MHz; UL: 806-824MHz) 8P: Public Safety 800 (DL: 851-862MHz; UL: 806-817MHz) 8SC: Commercial SMR800 (DL: 862-869MHz; UL: 817-824MHz) 8A: AMPS (DL: 869-894MHz; UL: 824-849MHz) 8AE: SMR800+AMPS (DL: 859-894MHz; UL: 814-849MHz) 8U: Comm. SMR800+AMPS (DL: 862-894MHz; UL: 817-849MHz) 9S: SMR900 (DL: 935-941MHz; UL: 896-902MHz) 9PP or 9P: SMR900+paging (DL: 928-941MHz; UL: 896-902MHz) 19: PCS1900 (DL: 1930-1995MHz; UL: 1850-1915MHz) 19E: PCS1900 extended (DL: 1930-2000MHz; UL: 1850-1920MHz) 19H: PCS+H block (DL: 1930-2020MHz; UL: 1850-1915MHz) AW: AWS2100 (DL: 2110-2155MHz; UL: 1710-1755MHz) AWE: AWS2100 extended (DL: 2110-2180MHz; UL: 1710-1780MHz) AWX: AWS2100+AWS4 (DL: 2110-2200MHz; UL: 1695-1780MHz) AWF: AWS2100 full (DL: 2110-2200MHz; UL: 1710-1780MHz) 23: WCS2300 (DL: 2350-2360MHz; UL: 2305-2315MHz) 25: LTE-TDD (DL/UL: 2496-2690MHz) 35: CBRS (DL/UL: 3550-3700MHz) 35T: Truncated C-band US (DL/UL: 3700-3980MHz) and combination of these
	c =	<b>RF Connector:</b> W: wideband D: duplexed B: bi duplexed N: no duplexed S: single connector
	p =	L: Low Power E: Enhanced Power M: Medium Power X: Upgradable software-defined (1W to 2W)
	zz =	<b>Power supply:</b> AC: 85-264 Vac, 50-60Hz 48: 36-72 Vdc DE: DE (Digital Electricity)
	kkk =	<b>Laser version:</b> Without option: NO WDM No Thermocontrolled laser version: M11 or 11: $\lambda = 1470 \pm 3 \text{ nm}$ M12 or 12: $\lambda = 1490 \pm 3 \text{ nm}$ M13 or 13: $\lambda = 1510 \pm 3 \text{ nm}$ M14 or 14: $\lambda = 1530 \pm 3 \text{ nm}$ M16 or 16: $\lambda = 1570 \pm 3 \text{ nm}$ M17 or 17: $\lambda = 1590 \pm 3 \text{ nm}$ M18 or 18: $\lambda = 1610 \pm 3 \text{ nm}$ Or W: $\lambda = 1550 \pm 3 \text{ nm}$
	j =	<b>Optical and RF connector:</b> S: SC-APC optical connector and N type RF connector E: E-2000 optical connector and N type RF connector T: SC-APC optical connector and 4.3-10 type RF connector F: E-2000 optical connector and 4.3-10 type RF connector

**Model Number Nomenclature Reference**

**REMOTE UNIT 6 bands LOW/ENHANCED/MEDIUM POWER**

Commercial name	Description	
TRpxyz	<b>TR</b>	Teko Telecom Remote Unit
	<b>P</b>	<b>L:</b> Low Power <b>E:</b> Enhanced Power <b>M:</b> Medium Power <b>X:</b> Upgradable software-defined (1W to 2W)
	<b>x =</b> (max 20 char)	<b>Operating band:</b> 6: LTE600 (DL: 617-652MHz, UL: 663-698MHz) 7S: SMR700 (DL: 728-757MHz; UL: 698-716+776-787MHz) 7E: SMR700 extended (DL: 728-768MHz; UL: 698-716+777-798MHz) 7F: Public Safety 700 (DL: 763-775MHz; UL: 793-805MHz) 7FL: Public Safety 700 (LTE) (DL: 758-775MHz; UL: 788-805MHz) 8S: SMR800 (DL: 851-869MHz; UL: 806-824MHz) 8P: Public Safety 800 (DL: 851-862MHz; UL: 806-817MHz) 8SC: Commercial SMR800 (DL: 862-869MHz; UL: 817-824MHz) 8A: AMPS (DL: 869-894MHz; UL: 824-849MHz) 8AE: SMR800+AMPS (DL: 859-894MHz; UL: 814-849MHz) 8U: Comm. SMR800+AMPS (DL: 862-894MHz; UL: 817-849MHz) 9S: SMR900 (DL: 935-941MHz; UL: 896-902MHz) 9PP or 9P: SMR900+paging (DL: 928-941MHz; UL: 896-902MHz) 19: PCS1900 (DL: 1930-1995MHz; UL: 1850-1915MHz) 19E: PCS1900 extended (DL: 1930-2000MHz; UL: 1850-1920MHz) 19H: PCS+H block (DL: 1930-2020MHz; UL: 1850-1915MHz) AW: AWS2100 (DL: 2110-2155MHz; UL: 1710-1755MHz) AWE: AWS2100 extended (DL: 2110-2180MHz; UL: 1710-1780MHz) AWX: AWS2100+AWS4 (DL: 2110-2200MHz; UL: 1695-1780MHz) AWF: AWS2100 full (DL: 2110-2200MHz; UL: 1710-1780MHz) 23: WCS2300 (DL: 2350-2360MHz; UL: 2305-2315MHz) 25: LTE-TDD (DL/UL: 2496-2690MHz) 35: CBRS (DL/UL: 3550-3700MHz) 35T: Truncated C-band US (DL/UL: 3700-3980MHz) and combination of these
	<b>y =</b>	<b>Power supply:</b> A: 85-264 Vac, 50-60Hz D: 36-72 Vdc T: 36-72 Vdc, twin connector E: DE (Digital Electricity)
	<b>z =</b>	<b>Optical and RF connector:</b> S: SC-APC optical connector and N type RF connector E: E-2000 optical connector and N type RF connector T: SC-APC optical connector and 4.3-10 type RF connector F: E-2000 optical connector and 4.3-10 type RF connector

Model Number Nomenclature Reference

REMOTE UNIT

Commercial name	Description	
Txyzjkkh	<b>T</b>	Teko Telecom Pole Remote Unit
	<b>x =</b>	<p><b>Operating band:</b></p> <p>6: LTE600 (DL: 617-652MHz, UL: 663-698MHz)</p> <p>7S: SMR700 (DL: 728-757MHz; UL: 698-716+776-787MHz)</p> <p>7E: SMR700 extended (DL: 728-768MHz; UL: 698-716+777-798MHz)</p> <p>8S: SMR800 (DL: 851-869MHz; UL: 806-824MHz)</p> <p>8SC: Commercial SMR800 (DL: 862-869MHz; UL: 817-824MHz)</p> <p>8A: AMPS (DL: 869-894MHz; UL: 824-849MHz)</p> <p>8AE: SMR800+AMPS (DL: 859-894MHz; UL: 814-849MHz)</p> <p>8U: Comm. SMR800+AMPS (DL: 862-894MHz; UL: 817-849MHz)</p> <p>9S: SMR900 (DL: 935-941MHz; UL: 896-902MHz)</p> <p>9PP: SMR900+paging (DL: 928-941MHz; UL: 896-902MHz)</p> <p>19: PCS1900 (DL: 1930-1995MHz; UL: 1850-1915MHz)</p> <p>19E: PCS1900 extended (DL: 1930-2000MHz; UL: 1850-1920MHz)</p> <p>19H: PCS+H block (DL: 1930-2020MHz; UL: 1850-1915MHz)</p> <p>AW: AWS2100 (DL: 2110-2155MHz; UL: 1710-1755MHz)</p> <p>AWE: AWS2100 extended (DL: 2110-2180MHz; UL: 1710-1780MHz)</p> <p>AWX: AWS2100+AWS4 (DL: 2110-2200MHz; UL: 1695-1780MHz)</p> <p>AWF: AWS2100 full (DL: 2110-2200MHz; UL: 1710-1780MHz)</p> <p>23: WCS2300 (DL: 2350-2360MHz; UL: 2305-2315MHz)</p> <p>25: LTE-TDD (DL/UL: 2496-2690MHz)</p> <p>35: CBRS (DL/UL: 3550-3700MHz)</p> <p>35T: Truncated C-band US (DL/UL: 3700-3980MHz)</p> <p><i>and combination of these</i></p>
	<b>y =</b>	<p><b>RF Connector:</b></p> <p>W: wideband</p> <p>D: duplexed</p> <p>B: bi duplexed</p> <p>N: no duplexed</p> <p>S: single connector</p>
	<b>z =</b>	<p><b>Output power:</b></p> <p>W: Very Very High power (40W)</p> <p>V: Very High power (20W)</p> <p>X: Upgradable software-defined (10W to 20W to 40W)</p>
	<b>j =</b>	<p><b>Power supply:</b></p> <p>A: AC Power Supply 90-264Vac, 50-60Hz</p> <p>D: DC Power Supply 36-72Vdc</p>

	<p>kk =</p>	<p><b>Laser version:</b> Without WDM: N: (λ = 1310nm) N21: (λ = 1560,61nm) N23: (λ = 1558,98nm) N25: (λ = 1557,36nm) N27: (λ = 1555,75nm) N29: (λ = 1554,13nm) N31: (λ = 1552,52nm) N33: (λ = 1550,92nm) N35: (λ = 1549,32nm) N37: (λ = 1547,72nm) With WDM Thermocontrolled laser version: W21 or 21: λ = 1560,61nm W23 or 23: λ = 1558,98nm W25 or 25: λ = 1557,36nm W27 or 27: λ = 1555,75nm W29 or 29: λ = 1554,13nm W31 or 31: λ = 1552,52nm W35 or 35: λ = 1549,32nm W37 or 37: λ = 1547,72nm W59 or 59: λ = 1530,33nm With WDM.No Thermocontrolled laser version: M11 or 11: λ = 1470 ± 3 nm M12 or 12: λ = 1490 ± 3 nm M13 or 13: λ = 1510 ± 3 nm M14 or 14: λ = 1530 ± 3 nm M16 or 16: λ = 1570 ± 3 nm M17 or 17: λ = 1590 ± 3 nm M18 or 18: λ = 1610 ± 3 nm Or Without option: λ = 1550 ± 3 nm</p>
	<p>h =</p>	<p><b>Optical connector:</b> S: SC-APC optical connector and 7/16 type RF connector E: E-2000 optical connector and 7/16 type RF connector T: SC-APC optical connector and 4.3-10 type RF connector F: E-2000 optical connector and 4.3-10 type RF connector H: for Horizontal mounting if letter H is present after S, E, T or F</p>

PRODUCT DATA SHEET

## Z4-SERIES SEISMICFRAME® CABINET SYSTEM

### KEY FEATURES

- Industry-leading 1500 lb (680 kg) seismic equipment load to support more equipment in your cabinet
- OSHPD OPM-0112-13 provides pre-approved, code-compliant seismic designs of supports and attachments for the cabinet when used in health facilities in California.
- UL Listed 2416 for a 3000 lb (1360 kg) static (non-seismic) equipment payload and integrated grounding and bonding features
- Multiple size options, including 1200 mm D cabinets to support deeper equipment, like modular network switches and high-density server applications
- Adjustable-depth equipment mounting rails match equipment mounting requirements
- Wide range of thermal and cable management accessories
- Pre-drilled top attachment points for mounting overhead pathway and bracing
- Includes transport casters for moving the cabinet into place during initial installation
- Simplified installation only requires floor anchorage eliminating the requirement for costly engineering calculations for external bracing
- Primary and secondary anchorage points provide flexibility in anchoring the cabinet to the floor

### APPLICATIONS

- Secure and protect critical computer server, data storage and network equipment in computer rooms, equipment rooms and other facilities that are located in seismically active areas

### USE WITH

- Air Dam
- Ring Cable Manager
- Cable Lashing Bracket
- Klik-Nut™ Hardware Kits
- Full Height Dual PDU Bracket

### RELATED ACCESSORIES

- Snap-In Filler Panels
- eConnect® PDUs

### Industry-Leading Seismic Load

1500 lb (680 kg) seismic equipment load plus 100 lb (45 kg) top load

### Infinitely Adjustable Rails

Provide increased flexibility and more unobstructed interior space for accessories



Load-Tested  
GR-63  
Zone 4

California  
OSHPD  
OPM-0112-13

The Z4-Series SeismicFrame® Cabinet System by Chatsworth Products (CPI) is an engineered solution specifically designed to store critical rack-mount server, data storage and network equipment in computer rooms, equipment rooms and other communications facilities that are located in active seismic areas.

Featuring an industry-leading 1500 lb (680 kg) equipment load, the Z4-Series SeismicFrame can also support an additional 100 lb (45 kg) top load for cabling. The Z4-Series SeismicFrame Cabinet was tested by a Telecommunications Carrier Group and ISO 17025 certified Independent Testing Laboratory (ITL) to meet the Telcordia Technologies GR-63-CORE, Issue 4, April 2012, Sections 4.4 per Zone 4 requirements. This seismic test was originally developed by the telecommunications industry to define general requirements for central office equipment with a focus on preventing system downtime. GR-63-CORE seismic testing includes a series of physical shaker table tests, during which a loaded cabinet is placed through simulated earthquake conditions. Zone 4 testing includes the most severe test conditions in which the cabinet must perform with limited movement and survive the test without permanent structural or mechanical damage ensuring the internal equipment is not damaged.

Additionally, the Z4-Series SeismicFrame Cabinet also holds a California Office of Statewide Health Planning and Development, Pre-Approval of Manufacturer's Certification (OSHPD OPM-0112-13). The OPM is a set of pre-approved, code-complaint seismic designs of supports and attachments for the cabinet that can be incorporated into construction documents for health facilities in California.

The Z4-Series SeismicFrame Cabinet is available in two heights, two widths and two depths with a solid top panel, side panels and perforated front and rear doors. It is also available as a frame only solution without doors or panels. The cabinet is UL Listed for a 3000 lb (1360 kg) static (non-seismic) load, has integrated grounding and bonding features, factory-installed transport casters for easy movement and recessed leveling feet to simplify installation.

Add thermal and cable management accessories to optimize system performance in accordance with industry best practices. Thermal management accessories manage airflow through the cabinet, keeping hot and cold air separated within the cabinet, allowing the cabinet to be fully integrated into an aisle containment strategy. Cable management accessories keep network and power cables neatly organized and physically separated. See inside for product details. Contact CPI Technical Support for configuration assistance.

### US & Canada

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+86 21 6880-0266  
chatsworth.com.cn

techsupport@chatsworth.com



## SPECIFICATIONS

- Zone 4 Seismic Rating: the seismic equipment load was independently verified with shaker table tests per GR-63 requirements
- Freestanding equipment cabinet provides front and rear support for 19"W (482.6 mm) EIA rack-mount equipment and shelves
- For indoor use only, in environmentally controlled areas, not harsh environments
- Includes:
  - Welded and bolted steel four-post frame
  - Equipment mounting rails, two pairs
  - Grounding/bonding system and ground lug
  - Recessed leveling feet with hex top for simple field leveling
  - Removable transport casters
  - Baying kit
  - Equipment mounting hardware, (50) M6 cage nuts and screws
- Equipment space:
  - See Height, Width and Depth tables under Ordering Information/Dimensions
- Doors/lock kits:
  - Perforated front door
  - Double perforated rear door
  - Perforated area is 78% open
  - Front door opens to 135° when bayed or not bayed
  - Rear door opens to 180° when bayed or not bayed
  - Hinge pins allow easy removal during maintenance
  - Reversible to open from the right or left, must move hinges/latch
  - Interchangeable front or rear, must move hinges/latches
  - Swing handle with keyed or combination/keyed locks
  - Front door has a single-point latch
  - Rear door has a three-point latch
- Side panels
  - Order with cabinet or as service part
  - Solid, two-piece panels (half height, full depth)
  - Individual top/bottom panels
  - Bolted attachment, two points per panel
  - Keyed lock, one per panel, matches door
  - Bay cabinets with panels installed or removed
- Top panel:
  - One-piece, solid panel with four large grommets over cable openings, one per corner
  - Grommets are plastic, snap on, seal cable openings and can be cut to pass cables
  - Unsealed openings are 4.5"W x 9.0"D (114 mm x 228 mm), wide enough for large PDU plugs
  - Bolt holes for attaching 12"W (300 mm), 18"W (460 mm) and 24"W (610 mm) Cable Runway (ladder rack) along both sides of the top panel, holes are sealed with snap on caps
- Equipment support:
  - Two pairs of mounting rails in the cabinet
  - Adjustable depth, rails slide front-to-back, marks on frame for easy vertical alignment
  - 1-3/4"H (44.45 mm) U spacing, marked and numbered on all rails
  - 19"W, EIA-310-E Universal 5/8"-5/8"-1/2" (15.9 mm – 15.9 mm – 12.7 mm) vertical hole spacing
  - Square-punched holes accepts Clic-Nut Hardware Kits and standard cage nuts
  - Includes 50 each M6 cage nuts and screws
- Load capacity
  - 1500 lb (680 kg) internal seismic equipment load
  - 100 lb (45 kg) additional cabinet rooftop load (Tested to Telcordia Technologies GR-63-CORE, Issue 4, April 2012, Sections 4.4, per Zone 4 requirements)
  - 3000 lb (1360 kg) static load (Tested to UL 2416, Issue 2, July 2013 Section 11.1.4, 4x rating load test)
- Grounding/Bonding:
  - Mounting rails, top panel, side panels and doors are electrically bonded to the cabinet frame
  - Prepared location for ground lug at the top and bottom of the frame
  - A grounding lug is included to attach the frame to ground
- Certifications:
  - EIA-310-E compliant
  - UL Listed 2416, NWIN, File #E227626

- Certifications (continued):
  - TCG NEBS Compliant, Telcordia Technologies, GR-63-CORE, Issue 4, April 2012, Sections 4.4, per Zone 4 requirements
  - OSHPD OPM-0112-13, California, Office of Statewide Health Planning and Development (OSHPD), Preapproval of Manufacturer's Certification (OPM)
- Material:
  - Steel frame, slides, rails and panels
  - Plastic grommets/seals
- Construction:
  - Welded/bolted frame
  - Mounting rails bolt to frame
- Finish:
  - Epoxy-polyester hybrid powder coat paint on frame, rails, panels in Black or Glacier White
  - Grommets/seals, door handles/hinges are black
- Installation:
  - Attach cabinet frame directly to the concrete floor using four Hilti HSL-3 M12/50 heavy duty expansion anchors (Hilti Item #371782, ordered separately), one per corner

### Installation Products

Installation products include equipment mounting hardware, concrete floor anchors and expanding adhesive foam sealing tape. Be sure to secure your cabinets to the floor with seismic anchors, and seal openings in panels and the raised floor.

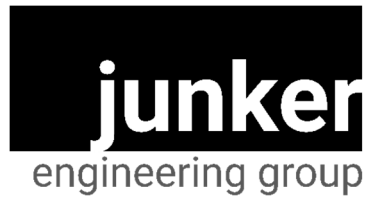
Part Number	Description	Shipping Weight lb (kg)
<b>Leveling Feet Height Adjustment Tool</b>		
39150-001	5 mm Hex Ball Driver Tool, 12"L (300 mm)	1 (0.5)
<b>Equipment Mounting Hardware</b>		
12637-001	Cage Nuts, Screws, M6, 25 Pack, Gold	1 (0.5)
12638-001	Cage Nuts, Screws, #10-32, 25 Pack, Zinc	1 (0.5)
12639-001	Cage Nuts, Screws, #12-24, 25 Pack, Black	1 (0.5)
76543-001*	Clic-Nut Hardware Kit; Cage Nut and Screws	1 (0.5)
<b>Aislelok™ Acrycell™ Sealing Tape</b>		
13876-000	5" Tape, 32.8'L (10 m), 5 Rolls, Black	3 (1.4)
13876-001	1" Tape, 18.4'L (5.6 m), 5 Rolls, Black	5 (2.3)
13876-002	2" Tape, 8.5'L (2.6 m), 5 Rolls, Black	7 (3.2)

Note: Recommended Floor Anchors are Hilti, Heavy Duty Expansion Anchor, HSL-3, M12/50, Item #371782, 4 required per cabinet, order from Hilti. \*Additional thread sizes and quantities available.





# SPECIAL SEISMIC CERTIFICATION REFERENCE INFORMATION



## PRODUCT DATA SHEET

## Z4-SERIES SEISMICFRAME CABINET

### ORDERING INFORMATION

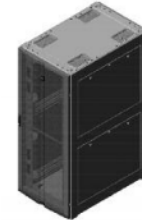
Z4-Series SeismicFrame Cabinet is available in three basic configurations: a full cabinet with or without side panels; a cabinet with no doors with or without side panels or a frame only with no doors or panel work. Use the part number configurators below to select a Z4-Series SeismicFrame Cabinet. Choose Height, Width, Depth, Front Door, Locks and Sides based on your requirements.

Z4	-	H	W	D	-	R	FD	RD	L	-	C	TP	SP
----	---	---	---	---	---	---	----	----	---	---	---	----	----

#### Z4-Series SeismicFrame Cabinets – Frame with Top Panels and Doors, Side Panels are optional

	1. Height			2. Width			3. Depth			4. Rails	5. Front Door		6. Rear Door		7. Latch		8. Color	9. Top Panel		10. Side Panels				
	U	in.	mm.	in.	mm.	in.	mm.	Description	Description		Description	Description	Description	Description	Description	Description		Description	Description	Description				
Z4-	1	40	78.7	1999	1	23.6	600	N	41.3	1050	1	Square-Punched	0	None	3	Double, Perf	C	Two-Point, Keyed	C	Black	1	Standard	0	None
	2	43	83.9	2132	2	31.5	800	U	47.3	1200	1	2-Pair	1	Single, Perf	0	None	E	Two-Point, Keyed/ Combination Lock	E	Glacier White	2	Solid, 2 each	2	Solid, 2 each

Z4-12U-113C-C12 shown



#### Z4-Series SeismicFrame Cabinets – Frame with Top Panel, no Doors, Side Panels are optional

	1. Height			2. Width			3. Depth			4. Rails	5. Front Door		6. Rear Door		7. Latch		8. Color	9. Top Panel		10. Side Panels				
	U	in.	mm.	in.	mm.	in.	mm.	Description	Description		Description	Description	Description	Description	Description	Description		Description	Description	Description				
Z4-	1	40	78.7	1999	1	23.6	600	N	41.3	1050	1	Square-Punched	0	None	0	None	0	None	C	Black	1	Standard	0	None
	2	43	83.9	2132	2	31.5	800	U	47.3	1200	1	2-Pair	0	None	0	None	0	None	E	Glacier White	2	Solid, 2 each	2	Solid, 2 each

Z4-12U-1000-C10 shown



#### Z4-Series SeismicFrame Cabinets – Frame Only, No Top Panel, Doors or Side Panels

	1. Height			2. Width			3. Depth			4. Rails	5. Front Door		6. Rear Door		7. Latch		8. Color	9. Top Panel		10. Side Panels				
	U	in.	mm.	in.	mm.	in.	mm.	Description	Description		Description	Description	Description	Description	Description	Description		Description	Description	Description				
Z4-	1	40	78.7	1999	1	23.6	600	N	41.3	1050	1	Square-Punched	0	None	0	None	0	None	C	Black	0	None	0	None
	2	43	83.9	2132	2	31.5	800	U	47.3	1200	1	2-Pair	0	None	0	None	0	None	E	Glacier White	0	None	0	None

Z4-12U-1000-C00 shown



#### Notes:

- There are eight possible frame sizes.
- Use the first matrix to order a complete cabinet with top, doors and sides; use the second matrix to order a cabinet with no doors; use the last matrix to order a Frame Only with no top, doors or sides.
- You must include a top panel, when ordering a cabinet with doors.
- You can order a cabinet with or without side panels.
- You can order a cabinet with or without a front door.
- Choose latch/lock style: keyed or combination/keyed. Every door must have a latch. The (0) option should only be selected if there are no doors. Doors have a swing handle on the exterior. The combination lock uses a 3-digit combination entered on 3-dials that are integrated into the swing handle or a key. The combination lock can be reprogrammed in the field.
- The front door has a single-point latch; the rear door has a two-point latch.

DIMENSION TABLES

Height Dimensions - in (mm)			
Rack Mount Spaces (U)	Overall with Casters	Frame Only No Casters	Front Opening
40	78.7 (1999)	77.4 (1965)	70.4 (1789)
43	83.9 (2132)	82.6 (2099)	75.7 (1922)

*Casters are factory installed on the cabinet, used to move the cabinet into position, and then removed before installation. The cabinet frame attaches directly to the floor.*

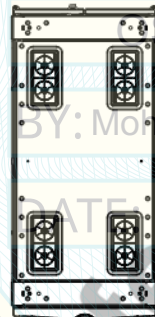
Depth Dimensions - in (mm)			
Nominal Depth	Overall with Doors	Frame Only No Doors	Maximum Rail Depth
1050	45.1 (1146)	41.3 (1050)	35.8 (911)
1200	51.1 (1296)	47.2 (1200)	41.7 (1061)

*Front Door is approximately 2.2"D (56 mm) and Rear Door is approximately 1.7"D (43 mm) with hinges/latches. Minimum rail depth is 10.2" (258 mm). The front rail is 6.7" (170 mm) deep; the rear rail is 3.5" (89 mm) deep. Rail Depth is reduced when vertical accessories are placed in corners.*

Width Dimensions - in (mm)			
Nominal Width	Overall with Side Panels	Front Opening	Rack-Mount Panel Width
600	23.6 (600)	19.6 (498)	19 (482.6)
800	31.5 (800)	27.5 (698)	19 (482.6)

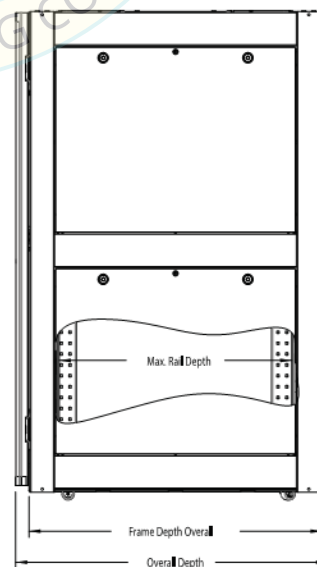
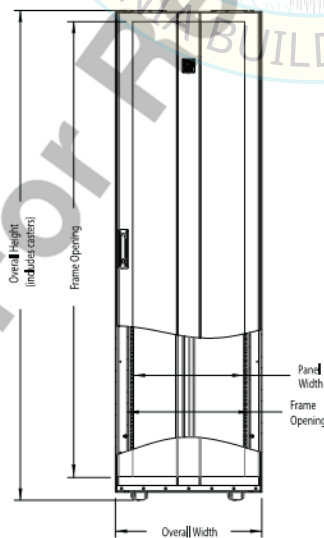
*Mounting Rail clearance is 17.8" (452 mm), mounting hole spacing is 18.3" (465 mm).*

DIMENSIONAL DRAWINGS:



**Service Parts**

Service parts include mounting rails, top panel, side panels, doors, and door lock kits, and are used as replacement parts or to upgrade cabinets as applications change. The Z4-Series SeismicFrame Service Parts Cut Sheet is available for download at [www.chatsworth.com](http://www.chatsworth.com), or contact CPI Technical Support at 800-834-4969 or [techsupport@chatsworth.com](mailto:techsupport@chatsworth.com) for assistance.



## ACCESSORIES

### Thermal Management Accessories

Thermal Management accessories enhance Thermal performance and play a critical role in controlling airflow inside the cabinet.



#### Snap-In Filler Panels

Snap-In Filler Panels block airflow in-between equipment by sealing unused rack-mount spaces (U) in the cabinet. Use with Air Dam to separate cold and hot air within the cabinet.

- Easy, tool-less attachment and removal on square-punched mounting rails
- Fills entire U space to form a tight seal between panels and equipment
- Material: Plastic
- Finish: Black or Glacier White
- Available in 1U and 2U heights, individual or bulk packs, color-matched to cabinet

Part Number			Height (U)	Shipping Weight lb (kg)
Each (1)	Pack (6)	Pack (50)		
34537-X00	34537-X01	34537-X02	1U	14 (6.4)
34538-X00	34538-X01	34538-X02	2U	21 (9.5)

X=Color, 0=Black, E=Glacier White. Shipping Weights are for 50 pack.



#### Cable Port Brush Kit

Cable Port Brush Kit is a pair of snap on brush covers that can be used to replace the plastic grommets included with the top panel to form a better seal for cable openings.

- Easy addition and removal of cables through brush opening
- Brushes form a tight seal around cables to minimize air leakage through cable openings
- Split, two-piece, snap on design for easy installation around cable bundles
- Includes: (2) brush covers
- Material: Plastic housing, nylon brushes

Part Number	Description	Shipping Weight lb (kg)
25190-001	Brush Covers, Pack of 2	2 (0.9)

Color is Black.



#### Air Dam

Air Dam blocks airflow around the sides and top of the equipment mounting space, so cold air passes through equipment, and hot air does not recirculate around equipment.

- Use with Snap-In Filler Panels and Equipment Rail Grommet Kit
- Attaches to and adjusts with mounting rails
- Requires a minimum rail setback of 2.3" (58 mm) from the front of the cabinet frame
- Flexible seal against top and side panels
- Includes: top, bottom and side baffles; installation hardware
- Material: Steel baffles, plastic seals
- Finish: Black or Glacier White; seals are Black
- Select part number to match the width, usable height and color of the cabinet

Part Number		Height (U)	Shipping Weight lb (kg)
23.6" W (600 mm)	31.5" W (800 mm)		
14435-X00	14435-X02	40	14 (6.4)
14435-X01	14435-X03	43	21 (9.5)

X=Color, C=Black, E=Glacier White. Shipping Weights are for 800 mm kits.



#### Equipment Rail Grommet Kit

Set of plastic grommets that cover cable openings in the equipment mounting rails in the wider cabinets to block airflow around equipment.

- Grommets are plastic, snap on, seal cable openings and can be cut to pass cables
- Includes: (8) grommets
- Material: Plastic

Part Number	Description	Shipping Weight lb (kg)
39133-001	Equipment Rail Grommet Kit, Pack of 8	2 (0.9)

Color is Black. Use with 31.5"W (800 mm) cabinets.

#### Baying Seal Kit

Baying Seal Kit is only used with 23.6"W (600 mm) cabinets when the cabinets are bayed to align with 24"W (610 mm) floor tiles. The Baying Seal Kit fills the small gaps left between cabinets.

- Flexible plastic insert that blocks airflow between cabinets
- Includes: side baffles, cut to length
- Material: Plastic
- Finish: Black only
- Select part number to match the usable height of the cabinet

Part Number	Height (U)	Shipping Weight lb (kg)
39137-700	40	5 (2.3)
39137-703	43	5 (2.3)



#### Label Holder Kit

Label Holder Kit includes 24 each, 1"H x 4"W (25 mm x 100 mm) label holders that can be attached to the front or sides of cabinets and hold labels for identifying the cabinet.

- Plastic, L-shaped, adhesive backed label holder for easy attachment to the cabinet
- Tough, heat resistant material and adhesive for long life
- Each kit includes 24 label holders
- 1"H x 4"W (25 mm x 100 mm) surface for labels; labels not included
- Material: Rigid PVC plastic, UL94-V0, Finish: Black

Part Number	Description	Shipping Weight lb (kg)
39151-001	Label Holder Kit, Pack of 24, Black	1 (0.5)



#### Seal Kit

Cover unused holes in the frame for hinges and installation brackets to prevent bypass airflow.

- Pre-cut, plastic, color-matched, adhesive backed labels for easy attachment to the cabinet
- Tough, heat resistant material and adhesive for long life
- Each kit includes 12 sheets; each sheet includes 21 round labels and six rectangular labels
- Round labels are .75" (19 mm) diameter. Rectangular labels are 1.3" x 2.2" (34 mm x 55 mm).
- Material: Thermoplastic polycarbonate film
- Finish: Black or Glacier White
- Select to match the color of the cabinet

Part Number	Height (U)	Shipping Weight lb (kg)
39076-X00	Seal Kit	1 (0.5)

X=Color, C=Black, E=Glacier White.

## ACCESSORIES

### Cable Management Accessories

Keep network, KVM and power cables separate and organized using the following cable management accessories.

#### Front-to-Rear Cable Manager

Front-to-Rear Cable Manager attaches to the back of equipment mounting rails creating a front-to-rear pathway between the front and rear mounting rails for cables.

- For use on 31.5"W (800 mm) cabinets
- Mounting locations behind cable openings on each rail
- Attaches to mounting rails and extends from 17.5" (445 mm) to 30.5" (775 mm) to match rail depth
- Creates a 3.0"H (76 mm) by 2.5"W (64 mm) front-to-rear pathway for cables
- Includes: cable manager, installation hardware
- Material: Steel panels
- Finish: Black or Glacier White
- Select part number to match the color of the cabinet

Part Number - Width		Rail Depth Range in (mm)	Shipping Weight lb (kg)
23.6" W (600 mm)	31.5" W (800 mm)		
N/A	14485-X00	17.5 - 30.5 (445 - 775)	6 (2.7)

X=Color: C=Black, E=Glacier White.

#### Cable Lashing Bracket

Cable Lashing Bracket creates a simple, separate vertical pathway for a small bundle of cables and has multiple slots for CPI Saf-T-Grip® Straps or tie wraps to secure cables to the bracket.

- Attaches to the frame in a fixed location, independent of the equipment mounting rails
- Use multiple to increase capacity
- Bracket is 1.6"W (41 mm)
- Includes: brackets, installation hardware; order Saf-T-Grips or cable ties separately
- Material: Steel
- Finish: Black or Glacier White
- Select part number to match the usable height and color of the cabinet

Part Number	Height (U)	Shipping Weight lb (kg)
14466-X00	40	3 (1.4)
14466-X01	43	3 (1.4)

X=Color: C=Black, E=Glacier White.

#### Ring Cable Manager

Ring Cable Manager is independent of the equipment mounting rails, creating a separate vertical pathway for cables and includes plastic cable rings to organize cables.

- Attaches to the frame in a fixed location, independent of the equipment mounting rails
- Rings have an opening on the front for easy addition or removal of cables
- Includes: brackets, rings, installation hardware
- Material: Steel brackets, plastic rings
- Finish: Black or Glacier White; rings are Black
- Select part number to match the width, usable height and color of the cabinet

Part Number - Width		Height (U)	Shipping Weight lb (kg)
23.6" W (600 mm)	31.5" W (800 mm)		
14440-X00	14445-X00	40	13 (5.9)
14440-X01	14445-X01	43	13 (5.9)

X=Color: C=Black, E=Glacier White. Shipping Weights are for 800 mm managers.

#### Full Height Dual PDU Bracket

Full Height Dual PDU Bracket is side-by-side and has multiple slots for CPI Saf-T-Grip® Straps or tie wraps to secure cords to the bracket.

- Attaches to the frame in a fixed location, independent of the equipment mounting rails
- Available in two widths: Dual and Wide
- Dual bracket is 4.8"W (121 mm) and supports two PDUs up to 2.2"W (51 mm) side-by-side
- Wide bracket is 5.8"W (147 mm) and supports two PDUs up to 2.7"W (69 mm) side-by-side
- Wide bracket is required to mount two 6-breaker eConnect PDUs (series P/Ns PX-3XXXX) side-by-side; eConnect PDUs (series P/Ns PX-3XXXX) will only fit in the 43U cabinet.
- Tool-less mounting on 28" (711 mm), 61.25" (1556 mm) or 64.75" (1645 mm) centers
- Includes: brackets, installation hardware; order Saf-T-Grips or cable ties separately
- Material: Steel
- Finish: Black or Glacier White
- Select part number to match PDU size, usable height and color of the cabinet

Part Number		Height (U)	Shipping Weight lb (kg)
Dual	Wide		
14480-X00	14481-X00	40	12 (5.4)
14480-X01	14481-X01	43	11 (5.0)

X=Color: C=Black, E=Glacier White. Shipping weights are for Wide managers. eConnect PDUs (P/Ns PX-3XXXX) will not fit inside a 40U cabinet.

Inside Dimensions, Usable Internal Cable Area, Rail Setback				
Cabinet Width	Width in (mm)	Depth in (mm)	Cable Area in' (mm²)	Rail Setback in (mm)
23.6 (600)	9 (29)	3.8 (94)	2.9 (1870)	9.5 (240)
31.5 (800)	4.2 (107)	3.5 (89)	14.7 (9480)	9.7 (246)

Note: Rail setback is the minimum distance required between the front edge of the cabinet frame and the front edge of the equipment mounting rail.



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