

**Section 27 11 00**

**COMMUNICATION EQUIPMENT ROOM FITTINGS**

**Section 27 11 16**

**Communications Cabinets, Racks, Frames and Enclosures**

**PART 1 – GENERAL**

**1.1 WORK INCLUDED**

- A. Provide all labor, materials, and equipment for the complete installation of work called for in the Contract Documents.

**1.2 SCOPE OF WORK**

- A. This section includes the minimum requirements for cabinets, racks, frames and enclosures in data centers, computer rooms, and communications equipment rooms.
- B. Included in this section are the minimum composition requirements and installation methods for the following:
  - 1. Freestanding Cabinets.

**1.3 QUALITY ASSURANCE**

- A. All cable and equipment shall be installed in a neat and workmanlike manner. All methods of construction that are not specifically described or indicated in the contract documents shall be subject to the control and approval of the Owner or Owner Representative. Equipment and materials shall be of the quality and manufacture indicated. The equipment specified is based upon the acceptable manufacturers listed. Where “approved equal” is stated, equipment shall be equivalent in every way to that of the equipment specified and subject to approval.
- B. Strictly adhere to all Building Industry Consulting Service International (BICSI), Electronic Industries Alliance (EIA) and Telecommunications Industry Association (TIA) recommended installation practices when installing communications/data cabling.
- C. Material and work specified herein shall comply with the applicable requirements of:
  - 1. TIA – 569-B Commercial Building Standard for Telecommunications Pathways and Spaces, 2004
  - 2. ANSI/TIA – 568-C Commercial Building Telecommunications Cabling Standard, 2009
  - 3. ANSI/NECA/BICSI 568-2006 – Standard for Installing Commercial Building Telecommunications Cabling

4. TIA – 606-A Administration Standard for Commercial Telecommunications Infrastructure, 2007
5. ANSI-J-STD – 607-A Joint Standard for Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications, 2002
6. ANSI/TIA-942 Telecommunications Infrastructure Standard for Data Centers, 2005
7. NFPA 70 – National Electric Code, 2008

## 1.4 SUBMITTALS

### 1.1 Provide product data for the following:

1. Manufacturers data sheets/cut sheets, specifications and installation instructions for all products (submit with bid).

## PART 2 – PRODUCTS

### 2.1 CABINETS

#### A. Free-standing Equipment Cabinets (CPI GlobalFrame Cabinet)

1. [Cabinets] Provide freestanding equipment cabinets to store computer, data storage, networking and security equipment in the data centers, computer rooms and equipment rooms. Each cabinet enclosure shall have a rectangular frame and removable top panel, side panels and doors. Installed cabinets shall include thermal, power, and cable management accessories that control airflow through the cabinet and keep network and power cables separate and organized.
2. [Cabinet Frame] The cabinet frame shall be rectangular with four corner posts, manufactured from steel with welded and bolted frame construction. The front and rear of the cabinet shall be welded rectangular frames. The sides of the cabinet shall have three steel supports located near the top, middle and bottom to allow attachment of equipment mounting rails and thermal, cable and power management accessories. The side supports shall be bolted to the front and rear frames.

The cabinet frame shall include leveling feet and casters. The cabinet frame shall support 3000 lb (1360 kg) of equipment when supported on leveling feet and secured to the structural floor. The cabinet frame shall support 2250 lb (1020 kg) of equipment when moved or supported on casters.

The cabinet shall be 79.3" (2013 mm) high by 23.6" (600 mm) wide by 48.4" (1229 mm) deep when casters, doors and side panels are installed. The cabinet frame is 47.2" (1200 mm) deep at the base.

*Change cabinet width, depth and height to match job requirements. Refer to the GlobalFrame Data Sheet or the CPI Product Configurator to see all GlobalFrame options. Note that GlobalFrame can be ordered with or without side panels.*

*Cabinet Heights: 79.3" (2013 mm) with 42U mounting rails, 84.5" (2147 mm) with 45U mounting rails, 89.9" (2280 mm) with 48U mounting rails; height includes casters. The number of rack-mount units (U) (2.1.A.3) changes when cabinet height changes.*

Cabinet Widths: 23.6" (600 mm), 29.5" (750 mm), 31.5" (800 mm), all 19"EIA.  
 Cabinet Depths (with doors): 32.7" (831 mm), 40.3" (1024 mm), 42.3" (1074 mm), or 48.4" (1229 mm); and corresponding Frame Depths (at base): 31.5" (800 mm), 39.4" (1000 mm), 41.3" (1050 mm), or 47.2" (1200 mm); Maximum Rail Depth (2.1.A.3) changes when cabinet/frame depth changes.

3. **[Equipment Mounting Rails]** Each cabinet shall include two pairs of equipment mounting rails. Mounting rails shall clamp to the side supports located near the top, middle and bottom of the frame and shall be fully adjustable in depth to provide front and rear support for equipment. Equipment Mounting Rails shall be spaced horizontally to support 19" (482.6 mm) wide EIA/ECA-310-E compliant rack-mount equipment and shall provide up to 42.5" (1079 mm) of rail-to-rail depth for equipment. Mounting rails shall be square-punched according to the EIA/ECA-310-E Universal hole pattern with equipment mounting holes on alternating 5/8" – 5/8" – 1/2" (15.9 mm – 15.9 mm – 12.7 mm) vertical hole centers. Square-punched holes shall accept cage nut hardware with various threads. Rack mount spaces or units (U) shall be 1-3/4" (44.45 mm) high and shall be marked and numbered on the mounting rails. Numbering shall start at the bottom of the rail. Mounting rails shall provide 42U for equipment.

Change maximum rail-to-rail depth and number of U to match job requirements.  
 Maximum Rail-to-Rail Depth (depth): 26.3" (668 mm) in the 32.7"D (831 mm) cabinet, 34.6" (879 mm) in the 23.6"W (600 mm) by 40.3"D (1024 mm) cabinet, 34.2" (868 mm) in other 40.3"D (1024 mm) cabinets, 36.6" (929 mm) in the 23.6"W (600 mm) by 42.3"D (1074 mm) cabinet, 36.1" (918 mm) in other 42.3"D (1074 mm) cabinets, 42.5" (1079 mm) in 23.6"W (600 mm) by 48.4"D (1229 mm) cabinet, 42.0" (1068 mm) in other 48.4"D (1229 mm) cabinets; cabinet depth (2.1.A.2) changes when maximum rail depth changes.  
 U (Height): 42U mounting rails in 79.3"H (2013 mm) cabinet, 45U mounting rails in 84.5"H (2147 mm) cabinet, 48U mounting rails in 89.9"H (2280 mm) cabinet; cabinet height includes caster; cabinet height (2.1.A.2) changes when U changes

4. **[Top Panel]** Choose one top panel [a., b., c. or d.] and make [4.]
  - a. **[Standard Cabinet]** The cabinet shall include a solid top panel with four multisized cable knockouts/ports, one in each corner. Each multisize knockout consists of one round 2.8" (71 mm) diameter grommet-protected cable access port and one round 2.8" (71 mm) diameter knockout captive within a larger 4.5"W x 9.0"D (114 mm x 228 mm) rectangular knockout. The top panel shall feature tool-less removal and will be pre-punched at the front and rear with attachment points for parallel (side-to-side) installation of 12"W (300 mm) cable runway. The manufacture will sell covers for the knockouts and attachment hardware for the cable runway as separate accessories.
  - b. **[High Density Cabinet with Short Vertical Exhaust Duct]** The cabinet shall include a solid top panel and a rectangular Vertical Exhaust Duct that is 20" (508 mm) high and extends up to 34" (863 mm) high. The top panel shall have a large rectangular open area located at the rear of the panel for airflow into the Vertical Exhaust Duct and two multisize cable knockouts/ports in the front corners. Each multisize knockout consists of one round 2.8" (71 mm) diameter grommet-protected cable access port and one round 2.8" (71 mm) diameter knockout captive within a larger 4.5"W x 9.0"D (114 mm x 228 mm) rectangular knockout. The top panel shall feature tool-less removal and will be pre-punched at the front with attachment points for parallel (side-to-side) installation of 12"W (300 mm) cable runway. The Vertical Exhaust Duct shall bolt to the top panel, shall allow infinite adjustment between 20" (508 mm) and 34" (863 mm) height, and shall include a flexible seal at the top to help prevent hot exhaust air from escaping the space between the duct and the drop

ceiling. The cabinet shall also include a bottom panel and a seal between the rear door and the frame to help capture hot air and guide it to the Vertical Exhaust Duct.

*This top panel is only available for 42.3"D (1074 mm) and 48.4"D (1229 mm) cabinets [41.3"D (1050 mm) and 47.2"D (1200 mm) frames] and must be used with a Perforated Front Door and a Solid Rear Door.*

- c. **[Cabinet with Tall Vertical Exhaust Duct]** The cabinet shall include a solid top panel and a rectangular Vertical Exhaust Duct that is 34" (863 mm) high and extends up to 60" (1523 mm) high. The top panel shall have a large rectangular open area located at the rear of the panel for airflow into the Vertical Exhaust Duct and two multisize cable knockouts/ports in the front corners. Each multisize knockout consists of one round 2.8" (71 mm) diameter grommet-protected cable access port and one round 2.8" (71 mm) diameter knockout captive within a larger 4.5"W x 9.0"D (114 mm x 228 mm) rectangular knockout. The top panel shall feature tool-less removal and will be pre-punched at the front with attachment points for parallel (side-to-side) installation of 12"W (300 mm) cable runway. The Vertical Exhaust Duct shall bolt to the top panel, shall allow infinite adjustment between 34" (863 mm) and 60" (1523 mm) height, and shall include a flexible seal at the top to help prevent hot exhaust air from escaping the space between the duct and the drop ceiling. The cabinet shall also include a bottom panel and a seal between the rear door and the frame to help capture hot air and guide it to the Vertical Exhaust Duct.

*This top panel is only available for 42.3"D (1074 mm) and 48.4"D (1229 mm) cabinets [41.3"D (1050 mm) and 47.2"D (1200 mm) frames] and must be used with a Solid Rear Door.*

- d. **[Frame Only]** The cabinet will not include a top panel.  
*This top panel is only available for Frame Only versions of the cabinet which does not include doors and must be selected using the CPI Product Configurator.*

5. **[Side Panels]** The cabinet shall include **two** half-height, solid side panels. Each side panel shall have a keyed latch located at the top center of the panel for easy installation and removal.

*Choose one or two side panels. Cabinets of the same height and depth can be bayed side-by-side with one, two or no solid side panels in between cabinets. When bayed to match 24" wide (610 mm) raised access floor tiles, there will be an approximate .4" (10 mm) gap between cabinets, include side panels on both cabinets. Use the alternate copy below for no side panels.*

**[Side Panels]** The cabinet will not include side panels.

6. **[Front Door]** The cabinet shall include a single curved perforated metal front door with quick-release hinge pins. The primary door panel shall be constructed using a single perforated sheet (63% open) with a solid outer perimeter. The primary door panel shall be embossed with a 4.6" (117 mm) diameter concave feature along the entire vertical height and include a protruding logo badge. The door assembly shall include upper and lower metal caps that follow the curved contour of the primary door panel. The door shall be removable and reversible to open from the right or left. The front door shall have a swing handle with a single-point cam latch and a keyed lock.

*Use the alternate (no door) copy below for a Frame Only cabinet.*

**[Front Door]** The cabinet will not include a front door.

7. **[Rear Door with Standard Top Panel]** The cabinet shall include a double (vertically split) perforated metal rear door with quick-release hinge pins. Each door panel shall be constructed using a single perforated sheet (63% open) with a solid outer perimeter. The doors shall be removable. The double rear door shall have a swing handle with a two-point latch and a keyed lock.
- [Rear Door with Vertical Exhaust Duct Top Panel]** The cabinet shall include a single solid metal rear door with quick-release hinge pins. Each door panel shall be constructed using a single solid sheet. The door shall be removable and reversible to open from the right or left. The rear door shall have a perimeter seal that blocks airflow between the door and the cabinet frame and a swing handle with a single-point latch and a keyed lock.
- Choose the Rear Door style to match the top panel style. Note that there are specific front/rear door combinations. Cabinets with Standard Top Panels use a curved perforated metal front door and a double perforated rear door. Cabinets with Vertical Exhaust Ducts must use a curved perforated metal front door and a single solid metal rear door. Use the alternate copy below for no doors.*
- [Rear Door]** The cabinet will not include a rear door.
8. **[Material/Construction]** The cabinet frame, top panel, side panels and doors shall be manufactured from steel. The front and rear of the cabinet shall be welded rectangular frames. The front and rear cabinet frames, mounting rail supports, mounting rails, doors and side panels shall assemble with hardware.
9. **[Grounding/Bonding]** The mounting rails, top panel, side panels and doors shall be electrically bonded to the cabinet frame. The cabinet frame shall have a prepared location for attaching a grounding lug.
10. **[PDU Mounting Brackets]** The cabinet shall include one pair of PDU mounting brackets. The brackets shall be L-shaped, shall attach to the rear right or left corner of the cabinet frame and shall include tool-less mounting points for two vertical rack-mount power distribution units (PDUs) or power strips. Tool-less mounting points will be spaced vertically 64.75" (1645 mm) apart. The brackets will support two 2" (51 mm) wide or narrower PDUs or power strips side-by-side or one 4.5" (114 mm) wide PDU. The brackets will orient the PDUs/power strips so that the outlets on the PDUs/powerstrips face the center of the cabinet frame. The brackets will occupy no more than 4" (100 mm) of space in the rear corner of the cabinet.
11. **[Certifications]** The cabinet shall be UL Listed as an Information Technology and Communications Equipment Cabinet, Enclosure and Rack System to standard UL 60950 under category NWIN. UL Listing will be stated in the manufacturer's product literature.
12. **[Color/Finish]** The cabinet frame, top panel, side panels, mounting rails and doors shall be painted black with epoxy-polyester hybrid powder coat paint. **The Vertical Exhaust Duct shall be painted black.** Plastic components shall be black.  
*Strike the highlighted sentences if the cabinet does not include a Vertical Exhaust Duct.*
13. **[Included Hardware]** The cabinet shall include (4) casters, (4) leveling feet, (4) floor attachment brackets and a baying kit. The manufacturer of the cabinet shall sell compatible equipment mounting hardware as an accessory.

14. [Packaging] The cabinet shall ship on a shock pallet with reusable carton so that it can be shipped to a factory integration site to be loaded with equipment, then repackaged and shipped to the data center for installation. The shock pallet shall be rated for 2,000 lb (907.2 kg) of payload excluding the cabinet weight.

*Strike Item 13 [Packaging] when not using a cabinet with a shock pallet (P/Ns GF-XXXXX3).*

15. Design Make shall be:

Chatsworth Products, Inc. (CPI),  
GlobalFrame™ Cabinet:

Part Number **GF-1A420**, GlobalFrame Cabinet, 79.3" (2013 mm) high x 23.6" (600 mm) wide x 47.2" (1200 mm) deep frame (at base)/48.4" (1229 mm) deep cabinet (at doors), with a 42U x 19"EIA x 42.5" (1079 mm) deep equipment space, Square-Punched Equipment Mounting Rails, Solid Top Panel, Two Half-Height Solid Side Panels, Single Perforated Metal Front Door, Double Perforated Metal Rear Door, Black.

Part Number **GF-1A423**, GlobalFrame Cabinet, 79.3" (2013 mm) high x 23.6" (600 mm) wide x 47.2" (1200 mm) deep frame (at base)/48.4" (1229 mm) deep cabinet (at doors), with a 42U x 19"EIA x 42.5" (1079 mm) deep equipment space, Square-Punched Equipment Mounting Rails, Solid Top Panel, Two Half-Height Solid Side Panels, Single Perforated Metal Front Door, Double Perforated Metal Rear Door, Black. Packaged on a shock pallet with reusable carton rated for 2,000 lb (907.2 kg) of payload excluding the cabinet weight.

Part Number **GF-1A421**, GlobalFrame Cabinet, 79.3" (2013 mm) high x 23.6" (600 mm) wide x 47.2" (1200 mm) deep frame (at base)/48.4" (1229 mm) deep cabinet (at doors), with a 42U x 19"EIA x 42.5" (1079 mm) deep equipment space, Square-Punched Equipment Mounting Rails, Solid Top Panel with 20"-34"H (508 mm – 863 mm) Vertical Exhaust Duct, Two Half-Height Solid Side Panels, Single Perforated Metal Front Door, Double Perforated Metal Rear Door, Black.

Part Number **GF-1A422**, GlobalFrame Cabinet, 79.3" (2013 mm) high x 23.6" (600 mm) wide x 47.2" (1200 mm) deep frame (at base)/48.4" (1229 mm) deep cabinet (at doors), with a 42U x 19"EIA x 42.5" (1079 mm) deep equipment space, Square-Punched Equipment Mounting Rails, Solid Top Panel with 34"-60"H (863 mm – 1523 mm) Vertical Exhaust Duct, Two Half-Height Solid Side Panels, Single Perforated Metal Front Door, Double Perforated Metal Rear Door, Black.

*The part numbers listed above are examples of GlobalFrame Cabinet descriptions for a standard cabinet, standard cabinet on shock pallet, high density cabinet with short Vertical Exhaust Duct and high density cabinet with tall Vertical Exhaust Duct. Change highlighted variables to match job requirements. Strike part numbers that do not apply. Use the [GlobalFrame Data Sheet](#) or the CPI Product Configurator to choose your GlobalFrame Cabinet. Product Configurator lets you choose product features and pick accessories, then creates a detailed Bill of Material based on your cabinet and accessory selections. You can substitute part numbers from the Bill of Material into this specification and change descriptions to match the selected items.*

B. Cable Management (CPI GlobalFrame Cabinet)

1. **[Vertical Cable Managers]** Each installed cabinet shall be equipped with **a** vertical cable manager to organize network cables. The vertical cable manager shall attach to the side of the equipment mounting rail in the cabinet. The vertical cable manager shall have cable openings along the side that align with each rack-mount unit (U) space on the mounting rail. The openings shall be sized to allow 24 patch cords to enter each rack-mount unit (U) space. The cable openings shall be separated by plastic T-shaped cable guides to route cables into each space.

*Choose the number of Vertical Cable Managers to include in each cabinet and list the correct Vertical Cable Manager Part Number in 2.1.B.8 below. Vertical Cable Managers **must** match the width and height of the cabinet frame. Each GlobalFrame cabinet can support up to four vertical cable managers - one per mounting rail.*

*Vertical Cable Managers require a rail setback (a reduction in rail-to-rail depth or the overall equipment mounting depth (see 2.1.A.3 above) of 5" (125 mm) in 23.6" (600 mm) wide cabinets and 8.6" (220 mm) in 29.5" (750 mm) wide and 31.5" (800mm) wide cabinets. If Vertical Cable Managers are used on the front and rear mounting rails, there will be a rail setback at the front and the rear of the cabinet.*

*Omit 2.1.B.1 and the Vertical Cable Manager Part Number in 2.1.B.8 if it is not used.*

2. **[Cable Ring Kit]** Each installed cabinet shall be equipped with **one** cable ring kit to store network cables. Each cable ring kit shall have eight individual D-shaped plastic cable rings. The cable rings shall attach to the front of an equipment mounting rail inside the cabinet creating a vertical cable pathway next to the equipment mounting rail.

*Choose the number of Cable Ring Kits to include in each cabinet and list the correct Cable Ring Kit Part Number in 2.1.B.8 below. Cable Ring Kits must match the width of the cabinet frame. Each kit includes 8 rings, enough for one equipment mounting rail. Each GlobalFrame cabinet can support up to four cable ring kits - one per mounting rail. Cable Ring Kits and Vertical Cable Managers cannot be used on the same equipment mounting rail.*

*Cable Ring Kits require an equipment mounting rail setback (a reduction in rail-to-rail depth or the overall equipment mounting depth, see 2.1.A.3 above) of 3.1" (79 mm) in 23.6" (600 mm) wide cabinets and 8" (203 mm) in 29.5" (750 mm) and 31.5" (800 mm) wide cabinets.*

*Omit 2.1.B.2 and the Cable Ring Kit Part Number from 2.1.B.8 if it is not used.*

3. **[Cable Ring Manager]** Each installed cabinet shall be equipped with **a** cable ring manager to store network cables. The cable ring manager shall be a pair of half-height brackets each with four plastic D-rings for securing cables. The cable ring manager shall attach in a vertical orientation to the side of the cabinet frame independent of the equipment mounting rails.

*Choose the number of Cable Ring Managers to include in each cabinet and list the correct Cable Ring Manager Part Number in 2.1.B.8 below. Cable Ring Managers **must** match the height and width of the cabinet frame.*

*Cable Ring Managers require a rail setback (a reduction in rail-to-rail depth or the overall equipment mounting depth, see 2.1.A.3 above) of 10.9" (277 mm) when placed between the mounting rail and cabinet frame. If Cable Lashing Bracket Kits are used at the front and rear of the cabinet, there will be a rail setback at the front and the rear of the cabinet.*

*Omit 2.1.B.3 and the Cable Ring Manager Part Number from 2.1.B.8 if it is not used.*

4. **[Cable Lashing Bracket Kit]** Each installed cabinet shall be equipped with **a** cable lashing bracket kit to secure network cables. The cable lashing bracket



kit shall include two half-height brackets, each 5" (125 mm) wide with two vertical columns of attachment points for securing cable bundles with Velcro straps or tie-wraps or 10" (250 mm) wide with three vertical columns of attachment points for securing cable bundles with Velcro straps or tie-wraps. The cable lashing bracket kit shall attach in a vertical orientation to the side of the cabinet frame independent of the equipment mounting rails.

*Choose the number of Cable Lashing Bracket Kits to include in each cabinet and list the correct Part Number in 2.1.B.8 below. Cable Lashing Bracket is available in two widths: 5" (125 mm) or 10" (250 mm). Strike 5" (125 mm) or 10" (250 mm) from the highlighted sentence to designate the width of the bracket. Cable Lashing Brackets **must** match the height of the cabinet frame.*

*Cable Lashing Bracket Kit requires a rail setback (a reduction in rail-to-rail depth or the overall equipment mounting depth, see 2.1.A.3 above) of 5" (125 mm) or 10" (250 mm) to match the width of the bracket. If Cable Lashing Bracket Kits are used at the front and rear of the cabinet, there will be a rail setback at the front and the rear of the cabinet.*

*Omit 2.1.B.4. and the Cable Lashing Bracket Part Number in 2.1.B.8 if it is not used.*

5. **[Rack-Mount Cable Shelf]** Each installed cabinet shall be equipped with a rack-mount shelf with brush-sealed cable pass-through ports along the front surface to create a front-to-back pathway for cables. The shelf shall be 19" EIA rack-mount and 1U high. The shelf shall attach to the front and rear pair of equipment mounting rails. The shelf shall adjust in depth to attach to mounting rails located between 22" (558 mm) and 40" (1016 mm) apart. The brush-sealed cable pass-through ports shall be sized to hold 48 patch cords.

*Choose the number of Rack-Mount Cable Shelves to include in each cabinet. Rack-Mount Cable Shelves are used to provide a front-to-rear pathway for cables in cabinets equipped with Thermal Management Accessories Rail Seal Kit or Snap-In Grommet & Plug Kit or in 23.6" (600 mm) wide cabinets when the equipment mounting rails are used to form an air dam.*

*Omit 2.1.B.5 and the Rack-Mount Cable Shelf Part Number in 2.1.B.8 if it is not used.*

6. **[Velocity Horizontal Cable Manager]** Each installed cabinet shall be equipped with a rack-mount horizontal cable manager to organize cables in the rack-mount unit spaces above and below each patch panel or network switch within the cabinet. The horizontal cable manager shall be 19" EIA rack-mount and 1U, 2U or 3U high. The horizontal cable manager shall be a single-sided U-shaped trough with a front-facing snap on cover. Plastic T-shaped cable guides along the top and bottom edge of the cable manager shall divide cable openings that allow cables to exit or enter the top or bottom of the manager. The cable manager shall be made of plastic, at least 5.9" (150 mm) deep and shall be sized to hold 24 patch cords per rack-mount unit (U) space.

*Velocity Horizontal Cable Manager requires a rail setback (a reduction in rail-to-rail depth or the overall equipment mounting depth, see 2.1.A.3 above) of 6.5" (165 mm).*

*Omit 2.1.B.6 and the Velocity Horizontal Cable Manager Part Numbers in 2.1.B.8 if it is not used.*

7. **[Snap-In Grommet Kit]** Each installed cabinet shall be equipped with plastic snap-in grommets to protect cables that pass through openings in the equipment mounting rails. The grommet shall be plastic, 5.5" (140 mm) high x 3.25" (83 mm) wide, and designed to snap into the large rectangular cable openings in the equipment mounting rails in 29.5" (700 mm) wide and 31.5" (800 mm) wide GlobalFrame cabinets. The grommet will cover the exposed



metal edge of the opening in the equipment mounting rail.

*Omit 2.1.B.7. and the Snap-In Grommet Kit Part Number in 2.1.B.8 if it is not used.*

8. Design Make shall be:  
Chatsworth Products, Inc. (CPI),  
GlobalFrame Cabinet,  
Cable Management Accessories:

Part Number **25110-700**, Vertical Cable Manager, for **79.3" (2013 mm)** high x **23.6" (600 mm)** wide, **42U** GlobalFrame Cabinet, 1" (25 mm) wide x 6.2" (158 mm) deep, Black.

Part Number **25110-701**, Vertical Cable Manager, for **84.5" (2147 mm)** high x **23.6" (600 mm)** wide, **45U** GlobalFrame Cabinet, 1" (25 mm) wide x 6.2" (158 mm) deep, Black.

Part Number **25110-702**, Vertical Cable Manager, for **89.8" (2280 mm)** high x **23.6" (600 mm)** wide, **48U** GlobalFrame Cabinet, 1" (25 mm) wide x 6.2" (158 mm) deep, Black.

*Select the correct cabinet height and width. Attaches to the equipment mounting rail and requires a minimum 5" (125 mm) setback. Cannot be used with Cable Ring Kit (P/N 25104-001).*

Part Number **25120-703**, Vertical Cable Manager, for **79.3" (2013 mm)** high x **29.5" (750 mm)** wide, **42U** GlobalFrame Cabinet, 4" (102 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

Part Number **25120-704**, Vertical Cable Manager, for **84.5" (2147 mm)** high x **29.5" (750 mm)** wide, **45U** GlobalFrame Cabinet, 4" (102 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

Part Number **25120-705**, Vertical Cable Manager, for **89.8" (2280 mm)** high x **29.5" (750 mm)** wide, **48U** GlobalFrame Cabinet, 4" (102 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

*Select the correct cabinet height and width. Attaches to the equipment mounting rail and requires a minimum 8.6" (220 mm) setback. Cannot be used with Cable Ring Kit (P/N 25105-001) or Snap-In Grommet & Plug Kit (P/N 25108-001). Can be used with Rail Seal Kit (P/N 25250-70x).*

Part Number **25120-706**, Vertical Cable Manager, for **79.3" (2013 mm)** high x **31.5" (800 mm)** wide, **42U** GlobalFrame Cabinet, 5" (125 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

Part Number **25120-707**, Vertical Cable Manager, for **84.5" (2147 mm)** high x **31.5" (800 mm)** wide, **45U** GlobalFrame Cabinet, 5" (125 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

Part Number **25120-708**, Vertical Cable Manager, for **89.8" (2280 mm)** high x **31.5" (800 mm)** wide, **48U** GlobalFrame Cabinet, 5" (125 mm) wide x 9" (229 mm) deep, Includes Cover, Black.

*Select the correct cabinet height and width. Attaches to the equipment mounting rail and requires a minimum 8.6" (220 mm) setback. Cannot be used with Cable Ring Kit (P/N 25106-001) or Snap-In Grommet & Plug Kit (P/N 25108-001). Can be used with Rail Seal Kit (P/N 25252-70x).*

Part Number **25104-001**, Cable Ring Kit, for **23.6" (600 mm)** wide GlobalFrame Cabinet, 1.7" (43 mm) wide x 5.0" (127 mm) deep Plastic D-Rings, Pack of 8, Black.

*Attaches to the equipment mounting rail and requires a minimum 3.1" (79 mm) setback. Cannot be used with Vertical Cable Manager (P/N 25110-70x).*

Part Number **25105-001**, Cable Ring Kit, for 29.5" (750 mm) wide GlobalFrame Cabinet, 4.5" (114 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Pack of 8, Black

*Attaches to the equipment mounting rail and requires a minimum 8.0" (203 mm) setback. Cannot be used with Vertical Cable Manager (P/N 25120-70x) or Rail Seal Kit (P/N 25250-70x). Can be used with Snap-In Grommet & Plug Kit (P/N 25108-001).*

Part Number **25106-001**, Cable Ring Kit, for 31.5" (800 mm) wide GlobalFrame Cabinet, 5.5" (140 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Pack of 8, Black

*Attaches to the equipment mounting rail and requires a minimum 8.0" (203 mm) setback. Cannot be used with Vertical Cable Manager (P/N 25120-70x) or Rail Seal Kit (P/N 25252-70x). Can be used with Snap-In Grommet & Plug Kit (P/N 25108-001).*

Part Number **25103-700**, Cable Ring Manager, for 79.3" (2013 mm) high x 29.5" (750 mm) wide, 42U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 4.5" (114 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

Part Number **25103-701**, Cable Ring Manager, for 84.5" (2147 mm) high x 29.5" (750 mm) wide, 45U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 4.5" (114 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

Part Number **25103-702**, Cable Ring Manager, for 89.8" (2280 mm) high x 29.5" (750 mm) wide, 48U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 4.5" (114 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

Part Number **25102-700**, Cable Ring Manager, for 79.3" (2013 mm) high x 31.5" (800 mm) wide, 42U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 5.5" (140 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

Part Number **25102-701**, Cable Ring Manager, for 84.5" (2147 mm) high x 31.5" (800 mm) wide, 45U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 5.5" (140 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

Part Number **25102-702**, Cable Ring Manager, for 89.8" (2280 mm) high x 31.5" (800 mm) wide, 48U GlobalFrame Cabinet, 10.9" (277 mm) deep, with 5.5" (140 mm) wide x 9.8" (249 mm) deep Plastic D-Rings, Black.

*Select the correct cabinet height and width. Attaches to the cabinet frame.*

Part Number **25221-701**, Cable Lashing Bracket Kit, for 79.3" (2013 mm) high, 42U GlobalFrame Cabinet, 5" (125 mm) wide, with two vertical columns of tie points for cables, Black.

Part Number **25221-703**, Cable Lashing Bracket Kit, for 84.5" (2147 mm) high, 45U GlobalFrame Cabinet, 5" (125 mm) wide, with two vertical columns of tie points for cables, Black.

Part Number **25221-705**, Cable Lashing Bracket Kit, for 89.8" (2280 mm) high, 48U GlobalFrame Cabinet, 5" (125 mm) wide, with two vertical columns of tie points for cables, Black.

Part Number **25221-702**, Cable Lashing Bracket Kit, for 79.3" (2013 mm) high, 42U GlobalFrame Cabinet, 10" (250 mm) wide, with three vertical columns of tie points for cables, Black.

Part Number **25221-703**, Cable Lashing Bracket Kit, for 84.5" (2147 mm) high, 45U GlobalFrame Cabinet, 10" (250 mm) wide, with three vertical columns of tie points for cables, Black.

Part Number **25221-705**, Cable Lashing Bracket Kit, for 89.8" (2280 mm) high, 48U GlobalFrame Cabinet, 10" (250 mm) wide, with three vertical columns of tie points for cables, Black

*Select the correct cabinet height and width. Attaches to the cabinet frame.*

Part Number **13517-701**, Rack-Mount Cable Shelf, 1U x 19"EIA, Extends 22" (558 mm) to 40" (1016 mm) Deep, Black.

*Use with rails spaced 22" (558 mm) to 40" (1016 mm) apart.*

Part Number **13930-701**, Velocity Horizontal Cable Manager, Single-Sided, 1U x 19"EIA x 5.9" (150 mm) deep, Black.

Part Number **13930-702**, Velocity Horizontal Cable Manager, Single-Sided, 2U x 19"EIA x 5.9" (150 mm) deep, Black.

Part Number **13930-703**, Velocity Horizontal Cable Manager, Single-Sided, 3U x 19"EIA x 5.9" (150 mm) deep, Black.

*Universal Horizontal Cable Managers require a 6.5" (165 mm) minimum rail setback.*

Part Number **25107-001**, Snap-In Grommet Kit, 5.5" (140 mm) high x 3.25" (83 mm) wide plastic snap-in grommet, pack of 14 (for 2 equipment mounting rails), Black.

*Cannot be used in 23.6"W (600 mm) cabinets.*

C. Power Distribution (CPI GlobalFrame Cabinet)

1. [Full Height PDU Bracket] Each installed cabinet shall be equipped with a vertical PDU and power cord manager to store PDUs and power cord slack. The vertical power manager shall be C-shaped, shall attach to the side of the cabinet frame and shall include tool-less mounting points for two vertical rack-mount power distribution units (PDUs) or power strips. Tool-less mounting points will be spaced vertically 64.75" (1645 mm) apart. The bracket will support two 2.4" (61 mm) wide or narrower PDUs side-by-side or one 4.9" (124 mm) wide PDU. The bracket shall orient PDUs so that the outlets on the PDUs/powerstrips face the center of the cabinet frame.

*Full Height PDU Bracket is an alternative to the standard PDU Brackets included with the cabinet listed under 2.1.A.10. It holds wider PDUs than the standard PDU bracket and has tie points for cable slack. Both brackets will support all CPI Vertical PDUs/Powerstrips for Cabinets. Choose the number of brackets to include in the cabinet and list the correct Full Height PDU Bracket Part Number in 2.1.C.2 below. The Full Height PDU Bracket **must** match the height of the cabinet frame. The Full Height PDU Bracket is usually used at the rear of a Server Cabinet. A minimum 5.2" (132 mm) mounting rail setback is required.*

2. Design Make shall be:  
Chatsworth Products, Inc. (CPI),  
GlobalFrame Cabinet,  
Power Distribution Accessories:

Part Number **25141-700**, Full Height PDU Bracket, for 79.3" (2013 mm) high, 42U GlobalFrame Cabinet, 5.2" (132 mm) wide, Black.

Part Number **25141-701**, Full Height PDU Bracket, for 84.5" (2147 mm) high, 45U GlobalFrame Cabinet, 5.2" (132 mm) wide, Black.

Part Number **25141-702**, Full Height PDU Bracket, for 89.8" (2280 mm) high, 48U GlobalFrame Cabinet, 5.2" (132 mm) wide, Black.  
*Order PDUs separately.*

D. Thermal Management (CPI GlobalFrame Cabinet)

1. **[Rail Seal Kit]** Each installed cabinet shall be equipped with an internal airflow baffle to block airflow around the sides of equipment in the cabinet. The airflow baffle shall seal the space at the front of the cabinet between the equipment mounting rails and the sides of the cabinet enclosure.  
*Use Rail Seal Kit or Snap-In Grommet & Plug Kit in server cabinets that require front-to-rear (cold-to-hot) airflow. Include Snap-In Filler Panels to seal any open rack-mount unit (U) spaces.*  
  
*List the correct Rail Seal Kit Part Number in 2.1.D.10 below. Rail Seal Kit **must** match the width and height of the cabinet frame. Rail Seal Kit is not available for 23.6"W (600 mm) cabinets. The equipment mounting rails form the airflow baffle in the 23.6"W (600 mm) cabinets. Rail Seal Kit can be used with Vertical Cable Manager, but cannot be used with Cable Ring Kit.*  
  
*Omit 2.1.D.1 and the Rail Seal Kit Part Number in 2.1.D.10 if it is not used.*
2. **[Snap-In Grommet & Plug Kit]** Each installed cabinet shall be equipped with plastic snap-in grommets with covers to block airflow through the cable pass through openings in the equipment mounting rails. The grommet shall be plastic, 5.5" (140 mm) high x 3.25" (83 mm) wide with a removable cover, and designed to snap into the large rectangular cable openings in the equipment mounting rails in 29.5" (700 mm) wide and 31.5" (800 mm) wide GlobalFrame cabinets.  
*Use Snap-In Grommet & Plug Kit or Rail Seal Kit in server cabinets that require front-to-rear (cold-to-hot) airflow. Include Snap-In Filler Panels to seal any open rack-mount unit (U) spaces.*  
  
*List the correct Snap-In Grommet & Plug Kit Part Number in 2.1.D.10 below. Snap-In Grommet & Plug Kit is not available for 23.6"W (600 mm) cabinets. The equipment mounting rails form the airflow baffle in the 23.6"W (600 mm) cabinets. Snap-In Grommet & Plug Kit can be used with Cable Ring Kit, but cannot be used with Vertical Cable Manager.*  
  
*Omit 2.1.D.2. and the Snap-In Grommet & Plug Kit Part Number in 2.1.D.10 if it is not used.*
3. **[Cable Port Grommet and Brush Kits]** Each installed cabinet shall be equipped with covers to seal any cable opening in the top panel. The top panel includes several pre-punched round and rectangular cable knockouts. If a knockout is removed, the opening must be sealed with a cover (grommet) that protects cables as they pass through the top panel and seals open spaces between cables. Use a solid 2.8" (71 mm) diameter round thermoplastic elastomer grommet that can be cut to match cable requirements on round openings. Use a rectangular plastic cover that has a 3.9" (99 mm) wide x 8.8" (224 mm) deep brush sealed cable opening in the center for cables and a split design (two-halves) that allows the grommet to be removed after cables are passed through the grommet opening on rectangular openings.  
*Use Cable Port Grommet and Brush Kits to seal cable knockout openings in the cabinet's top panel. Two styles are available. List the correct Cable Port Grommet Kit and/or Cable Port Brush Kit in 2.1.D.10 below.*  
  
*Omit 2.1.D.3. and the Cable Port Grommet and Brush Kit Part Numbers in 2.1.D.10 if they are not used.*

4. **[Snap-In Filler Panels]** Each installed cabinet shall be equipped with filler (blanking) panels that seal any open rack-mount unit space (spaces not occupied by other equipment). The filler (blanking) panels shall be made of plastic and shall be designed to attach to square-punched equipment mounting rails without hardware. The filler (blanking) panel design shall allow the panels to be installed and removed from the equipment mounting rails without tools. Panels shall be sized to fit 1U x 19"EIA and 2U x 19"EIA rack-mount panel spaces.  
*Use Snap-In Filler Panels to seal any open rack-mount unit (U) spaces in the cabinet.*  
*List the correct Snap-In Filler Panel Part Number in 2.1.D.10 below.*  
*Omit 2.1.D.4 and the Snap-In Filler Panel Part Number in 2.1.D.10 if it is not used.*
5. **[Fan Top Panel Kit, 115 VAC]** Each installed cabinet shall include a fan top panel kit to help remove hot air from the cabinet. The fan top panel kit shall include four 100 CFM (170 CMH) fans in two housings attached to a solid cabinet top panel with vented center section and cable knockouts in each corner. Fans will be rated for 115 VAC, 50-60 Hz. The fan kit shall include a single detachable 15' (5 m) long power cord with dual IEC 60320 C13 power connectors (1 per fan housing) and a NEMA L5-15P plug.  
*Use Fan Top Panel Kit to increase air changes through standard cabinets.*  
*List the correct Fan Top Panel Kit Part Number in 2.1.D.10 below. Fan Top Panel Kit **must** match the width and depth of the cabinet frame. Top-Mount Fan Kit cannot be used with cabinets that have a Vertical Exhaust Duct Top Panel.*  
*Omit 2.1.D.5 and the Fan Top Panel Kit Part Number in 2.1.D.10 if it is not used.*
6. **[Fan Top Panel Kit, 230 VAC]** Each installed cabinet shall include a fan top panel kit to help remove hot air from the cabinet. The fan top panel kit shall include four 100 CFM (170 CMH) fans in two housings attached to a solid cabinet top panel with vented center section and cable knockouts in each corner. Fans will be rated for 230 VAC, 50-60 Hz. The fan kit shall include a single detachable 15' (5 m) long power cord with dual IEC 60320 C13 power connectors (1 per fan housing) and an IEC 60320 C14 inlet.  
*Use Fan Top Panel Kit to increase air changes through standard cabinets.*  
*List the correct Fan Top Panel Kit Part Number in 2.1.D.10 below. Fan Top Panel Kit **must** match the width and depth of the cabinet frame. Top-Mount Fan Kit cannot be used with cabinets that have a Vertical Exhaust Duct Top Panel.*  
*Omit 2.1.D.6 and the Fan Top Panel Kit Part Number in 2.1.D.10 if it is not used.*
7. **[Brush Side Panel]** Each installed cabinet shall include a brush side panel to allow cables to exit or enter the side of the cabinet while preventing hot exhaust air from escaping the cabinet. The brush side panel shall include two half height solid locking side panels. Each half-height panel shall have four 8.8" (224 mm) high x 3.9" (99 mm) wide brush sealed cable access ports, one per corner and a single locking latch.  
*Use Brush Side Panel to allow cables to enter/exit the side of the cabinet.*  
*List the correct Brush Side Panel Part Number in 2.1.D.10 below. Brush Side Panel **must** match the height and depth of the cabinet frame. When cabinets are bayed side-by-side, only one Brush Side Panel can be installed between cabinets.*  
*Omit 2.1.D.7 and the Brush Side Panel Part Number in 2.1.D.10 if it is not used.*

8. **[Bottom Panel]** Each installed cabinet shall be equipped with a bottom panel to block airflow through the bottom of the cabinet. The panel will have 8.8" (228 mm) wide x 3.9" (99 mm) deep brush-sealed cable access port located near the rear edge of the panel.

*Bottom Panel is included with cabinets that have a Vertical Exhaust Duct Top Panel.*

*List the correct Bottom Panel Part Number in 2.1.D.8 below. Bottom Panel **must** match the width and depth of the cabinet frame.*

*Omit 2.1.D.8 and the Bottom Panel Part Number in 2.1.D.10 if it is not used.*

9. **[Airflow Director]** Each installed cabinet with a Vertical Exhaust Duct top panel that supports a heat load in excess of 15 kW shall be equipped with a baffle that directs airflow from the bottom, rear of the cabinet towards the top of the cabinet. The baffle will attach to the rear horizontal member on the cabinet frame and will be narrower than the equipment mounting rails allowing rails to be positioned alongside the baffle.

*Airflow Director is only used with cabinets that have a Vertical Exhaust Duct Top Panel.*

*List the correct Airflow Director Part Number in 2.1.D.9 below. Airflow Director **must** match the width of the cabinet frame.*

*Omit 2.1.D.9 and the Airflow Director Part Number in 2.1.D.10 if it is not used.*

10. Design Make shall be:

Chatsworth Products, Inc. (CPI),  
GlobalFrame Cabinet,  
Thermal Management Accessories:

Part Number **25250-700**, Rail Seal Kit, for **79.3" (2013 mm)** high x **29.5" (750 mm)** wide, **42U** GlobalFrame Cabinet, Black.

Part Number **25250-701**, Rail Seal Kit, for **84.5" (2147 mm)** high x **29.5" (750 mm)** wide, **45U** GlobalFrame Cabinet, Black.

Part Number **25250-702**, Rail Seal Kit, for **89.8" (2280 mm)** high x **29.5" (750 mm)** wide, **48U** GlobalFrame Cabinet, Black.

Part Number **25252-700**, Rail Seal Kit, for **79.3" (2013 mm)** high x **31.5" (800 mm)** wide, **42U** GlobalFrame Cabinet, Black.

Part Number **25252-701**, Rail Seal Kit, for **84.5" (2147 mm)** high x **31.5" (800 mm)** wide, **45U** GlobalFrame Cabinet, Black.

Part Number **25252-702**, Rail Seal Kit, for **89.8" (2280 mm)** high x **31.5" (800 mm)** wide, **48U** GlobalFrame Cabinet, Black.

Part Number **25108-001**, Snap-In Grommet & Plug Kit, 5.5" (140 mm) high x 3.25" (83 mm) wide plastic snap-in grommet with cover, pack of 14 (for 2 equipment mounting rails), Black.

Part Number **35021-000**, Cable Port Grommet Kit, 2.8" (71 mm) diameter round thermoplastic elastomer snap-in solid grommet, pack of 2 (for GlobalFrame top panel), Black.

Part Number **25190-001**, Cable Port Brush Kit, 3.9" (99 mm) wide x 8.8" (224 mm) deep rectangular brush-sealed snap-in split plastic grommet, pack of 2 (for GlobalFrame top panel), Black.



Part Number **34537-000**, Snap-In Filler Panel, 1U x 19"EIA, Black  
Part Number **34537-001**, Snap-In Filler Panel, 1U x 19"EIA, Pack of 6, Black  
Part Number **34537-002**, Snap-In Filler Panel, 1U x 19"EIA, Pack of 50, Black  
Part Number **34538-000**, Snap-In Filler panel, 2U x 19"EIA, Black  
Part Number **34538-001**, Snap-In Filler Panel, 2U x 19"EIA, Pack of 6, Black  
Part Number **34538-002**, Snap-In Filler Panel, 2U x 19"EIA, Pack of 50, Black

Part Number **25088-701**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-702**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-703**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-705**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-706**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-707**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-708**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **31.5" (800 mm)** deep (at base)/**32.7" (831 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-709**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-710**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-711**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors)  
GlobalFrame Cabinet, with 115 VAC Fans and NEMA 5-15P Plug, Black.

Part Number **25088-721**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors)  
GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.



Part Number **25088-722**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-723**, Fan Top Panel Kit, for **23.6" (600 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-725**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-726**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-727**, Fan Top Panel Kit, for **29.5" (750 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-728**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **31.5" (800 mm)** deep (at base)/**32.7" (831 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-729**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-730**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25088-731**, Fan Top Panel Kit, for **31.5" (800 mm)** wide x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors) GlobalFrame Cabinet, with 230 VAC Fans and IEC C14 Plug, Black.

Part Number **25037-700**, Brush Side Panel, for **79.3" (2013 mm)** high x **31.5" (800 mm)** deep (at base)/**32.7" (831 mm)** deep (at doors), **42U** GlobalFrame Cabinet, Black.

Part Number **25037-701**, Brush Side Panel, for **79.3" (2013 mm)** high x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors), **42U** GlobalFrame Cabinet, Black.

Part Number **25037-702**, Brush Side Panel, for **79.3" (2013 mm)** high x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors), **42U** GlobalFrame Cabinet, Black.

Part Number **25037-703**, Brush Side Panel, for **79.3" (2013 mm)** high x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors), **42U** GlobalFrame Cabinet, Black.

Part Number **25037-704**, Brush Side Panel, for **84.5" (2147 mm)** high x **31.5" (800 mm)** deep (at base)/**32.7" (831 mm)** deep (at doors), **45U** GlobalFrame Cabinet, Black.

Part Number **25037-705**, Brush Side Panel, for **84.5" (2147 mm)** high x **39.4" (1000 mm)** deep (at base)/**40.3" (1024 mm)** deep (at doors), **45U** GlobalFrame Cabinet, Black.

Part Number **25037-706**, Brush Side Panel, for **84.5" (2147 mm)** high x **41.3" (1050 mm)** deep (at base)/**42.3" (1074 mm)** deep (at doors), **45U** GlobalFrame Cabinet, Black.

Part Number **25037-707**, Brush Side Panel, for **84.5" (2147 mm)** high x **47.2" (1200 mm)** deep (at base)/**48.4" (1229 mm)** deep (at doors), **45U** GlobalFrame Cabinet, Black.

Part Number **25037-708**, Brush Side Panel, for **89.8" (2280 mm)** high x **31.5" (800 mm)** deep (at base)/**32.7" (831 mm)** deep (at doors), **48U** GlobalFrame Cabinet, Black.

Part Number **25037-709**, Brush Side Panel, for 89.8" (2280 mm) high x 39.4" (1000 mm) deep (at base)/40.3" (1024 mm) deep (at doors), 48U GlobalFrame Cabinet, Black.

Part Number **25037-710**, Brush Side Panel, for 89.8" (2280 mm) high x 41.3" (1050 mm) deep (at base)/42.3" (1074 mm) deep (at doors), 48U GlobalFrame Cabinet, Black.

Part Number **25037-711**, Brush Side Panel, for 89.8" (2280 mm) high x 47.2" (1200 mm) deep (at base)/48.4" (1229 mm) deep (at doors), 48U GlobalFrame Cabinet, Black.

Part Number **25130-701**, Bottom Panel, for 23.6" (600 mm) wide x 39.4" (1000 mm) deep (at base)/40.3" (1024 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-702**, Bottom Panel, for 23.6" (600 mm) wide x 41.3" (1050 mm) deep (at base)/42.3" (1074 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-703**, Bottom Panel, for 23.6" (600 mm) wide x 47.2" (1200 mm) deep (at base)/48.4" (1229 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-705**, Bottom Panel, for 29.5" (750 mm) wide x 39.4" (1000 mm) deep (at base)/40.3" (1024 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-706**, Bottom Panel, for 29.5" (750 mm) wide x 41.3" (1050 mm) deep (at base)/42.3" (1074 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-707**, Bottom Panel, for 29.5" (750 mm) wide x 47.2" (1200 mm) deep (at base)/48.4" (1229 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-708**, Bottom Panel, for 31.5" (800 mm) wide x 31.5" (800 mm) deep (at base)/32.7" (831 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-709**, Bottom Panel, for 31.5" (800 mm) wide x 39.4" (1000 mm) deep (at base)/40.3" (1024 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-710**, Bottom Panel, for 31.5" (800 mm) wide x 41.3" (1050 mm) deep (at base)/42.3" (1074 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25130-711**, Bottom Panel, for 31.5" (800 mm) wide x 47.2" (1200 mm) deep (at base)/48.4" (1229 mm) deep (at doors), GlobalFrame Cabinet, Black.

Part Number **25150-701**, Airflow Director, for 23.6" (600 mm) wide GlobalFrame Cabinet, Black.

Part Number **25150-702**, Airflow Director, for 29.5" (750 mm) wide GlobalFrame Cabinet, Black.

E. Shelves (CPI GlobalFrame Cabinet):

1. [Equipment Shelves] Each installed cabinet shall be equipped with shelves for equipment that does not rack-mount directly to the equipment mounting rails. Cabinet shelves shall be fixed with a vented or solid mounting surface. Cabinet shelves shall be sized to fit the rack-mount width and depth of the cabinet and shall have adjustable depth mounting brackets that allow

attachment to the front and rear pair of equipment mounting rails within the cabinet. Cabinet shelves shall be wider and deeper than the equipment placed on the shelf and shall have a load bearing capacity that exceeds the fully populated weight of equipment. Equipment shall be secured to the shelf with a bracket.

*Shelf sizes, mounting depth ranges and load bearing capacities are listed below.*

2. Design Make shall be:  
Chatsworth Products, Inc. (CPI),  
GlobalFrame Cabinet,  
Shelves:

Part Number **12334-719**, Fixed Shelf, Solid, 1U x 19"EIA x 24" (610 mm) Deep, 250 lb (113.4 kg) Capacity, Black.

*Shelf surface is 17" wide by 24" deep (430 mm wide x 610 mm deep). Fits cabinets with mounting rails set 17" to 28" (430 mm to 710 mm) in depth.*

Part Number **12573-719**, Low Profile Fixed Shelf, Solid, 1U x 19"EIA x 20" (510 mm) to 36" (910 mm) Deep, 100 lb (45.4 kg) Capacity, Black.

Part Number **12610-719**, Low Profile Fixed Shelf, Vented, 1U x 19"EIA x 20" (510 mm) to 36" (910 mm) Deep, 100 lb (45.4 kg) Capacity, Black.

*Shelf surface is 17.5" wide by 20" to 36" deep (445 mm wide x 510 mm to 910 mm deep). The shelf is comprised of a front and rear half that telescope to match equipment mounting rail depth. The depth of the shelf surface is set by the depth of the equipment mounting rails. Fits cabinets with mounting rails set 20" to 36" (510 mm to 910 mm) in depth.*

Part Number **14061-719**, Seismic Equipment Bracket for Cabinets, 1U x 19"EIA, 15" to 32" (380 mm to 810 mm) Deep, Black.

*Secure a single piece of equipment up to 16" (410 mm) wide or two pieces of equipment with a combined width of 15" (380 mm). Equipment must be 15" to 32" (380 mm to 810 mm) in depth. Fits cabinets with mounting rails set 22" to 39" (560 mm to 990 mm) in depth.*

F. Installation Accessories (CPI GlobalFrame Cabinet)

1. **[Equipment Mounting Hardware]** Provide additional equipment mounting hardware to attach equipment to the equipment mounting rails in the cabinet.
2. **[Ground Terminal Block]** Provide a ground terminal block for connecting the cabinet to the Telecommunications Ground. The ground terminal block shall be made of a conductive material, have a mounting hole sized for M6 hardware and attachment points for two conductors of various size up to #4 AWG.
3. **[Baying Seal Kit]** Provide a front and rear plastic snap-in covers for the gap left between 23.6" (600 mm) wide cabinets when bayed centered over 24" (610 mm) wide raised access floor tiles.
4. **[Cable Runway Elevation Kit]** Provide hardware for attaching ladder rack (cable runway) to the top of the cabinet. The hardware shall attach the ladder rack in parallel (side-to-side) orientation and will elevate the ladder rack a minimum of 2" (50 mm) above the cabinet.
5. **[Rack Installation Kit]** Provide (4) 3/8" or M10 anchors and hardware for securing the cabinet to the structural floor.

6. Design Make shall be:  
Chatsworth Products, Inc. (CPI),  
GlobalFrame Cabinet,  
Installation Accessories:

Part Number **12637-001**, Cage Nuts and Screws, M6, 25 Pack, Gold.  
Part Number **12638-001**, Cage Nuts and Screws, #10-32, 25 Pack,  
Zinc.  
Part Number **12639-001**, Cage Nuts and Screws, #12-24, 25 Pack,  
Black.

Part Number **08009-001**, One Mounting Hole Ground Terminal Block.  
*Must be installed before equipment is installed in the cabinet.*

Part Number **25242-700**, Baying Seal Kit, for **79.3" (2013 mm)** high,  
**42U** GlobalFrame Cabinet, Black.

Part Number **25242-701**, Baying Seal Kit, for **84.5" (2147 mm)** high,  
**45U** GlobalFrame Cabinet, Black.

Part Number **25242-702**, Baying Seal Kit, for **89.8" (2280 mm)** high,  
**48U** GlobalFrame Cabinet, Black.

Part Number **10506-712**, Cable Runway Elevation Kit, elevates Cable  
Runway 2" (50 mm), 2.5" (64 mm) or 3" (80 mm) high, Black.

Part Number **10506-716**, Cable Runway Elevation Kit, elevates Cable  
Runway 4" (100 mm), 5" (130 mm) or 6" (150 mm) high, Black.

Part Number **40604-001**, Rack Installation Kit, for Concrete Slab Floor,  
3/8" anchor and hardware, Pack of 4, Zinc.

Part Number **40604-004**, Rack Installation Kit, for Concrete Slab Floor,  
M10 anchor and hardware, Pack of 4, Zinc.

### 3.1 INSTALLATION

#### A. Free-standing Equipment Cabinets (CPI GlobalFrame Cabinet)

1. Provide all components of the cabinet system (cabinet, mounting rails, shelves, cable, power and thermal management accessories) from a single manufacturer.
2. Install and adjust to position all accessories including vertical cable managers, vertical power strips, equipment-mounting rails, airflow baffles using the manufacturer's installation instructions prior to baying and/or placing the cabinet for attachment to the building. Shelves, horizontal cable managers and filler panels, if used, may be installed after the cabinet is placed.
3. When attached to the structural floor, the installer shall provide installation hardware.
4. When used in a multi-cabinet bay, cabinets shall be attached side-by-side using included baying kits according to the manufacturer's instructions.

5. Attach overhead ladder rack or cable tray to the ceiling or the top of the cabinet. A 3" (75 mm) minimum clearance between the top of the cabinet and the bottom of the ladder rack/cable tray shall be maintained. Ladder rack/cable tray shall be positioned so that it does not interfere with hot air exhaust through the cabinet's top panel. Use radius drops where cable enters/exits the ladder rack/cable tray.

*Note: Seismic installations require additional bracing of cabinets and overhead cable runways to building structure as advised by and certified by a licensed structural engineer.*

6. Cabinets shall be securely bonded to the Telecommunications Grounding Busbar (TGB). Attach a bonding conductor sized as defined in J-STD-607-A and as defined by local code or the authority having jurisdiction (AHJ) between the Telecommunications Grounding Busbar and the cabinet. Attach the bonding conductor to the cabinet using a ground terminal block according to the manufacturer's installation instructions. The installer shall provide the bonding conductor and other necessary hardware required to make the connections between the cabinet and the Telecommunications Grounding Busbar.