

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 wall-mounted racks for use in communications equipment rooms.
- B. Included in this section are the minimum composition requirements and installation methods for the following:
 - 1. Racks, wall-mounted.

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

- A. 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 Racks, Wall-Mounted

A. Wall-Mounted Swing Gate Equipment Rack (EasySwing Wall-Mount Rack)

1. Wall-mounted racks shall be manufactured from sheet and tubular steel.
2. The rack will consist of a wall-mount frame and a swing gate. The swing gate will support 19" EIA equipment and will pivot open to provide easy access to the back of equipment.
3. The swing gate will be connected to the wall-mount frame on one side at the top and the bottom of the swing gate with a hinge pin. The swing gate will pivot open to at least 180°. The frame will be symmetrical allowing the rack to open from the right or from the left by turning the rack over before installation.
4. The swing gate will be secured in the closed position with a removable latch pin that will pass through the wall-mount frame and swing gate.
5. The rack will be EIA-310-D compliant with the Universal hole pattern. Rack-mount spaces/units (U) will be 1-3/4" (44.45 mm) high. Mounting holes will be spaced vertically on an alternating 5/8"-5/8"-1/2" (15.9 mm – 15.9 mm – 12.7 mm) centers and will be roll-formed with #12-24 threads. Mounting rails will provide 11, 19 or 26 rack-mount spaces/units (U) for equipment as specified below.
6. Overall dimensions of the rack will be 24.5" (622 mm), 38.5" (978 mm) or 51.5" (1308 mm) high; 20.3" (516 mm) wide; and 8.0" (204 mm), 12.0" (305 mm), 18.0" (457 mm) or 25.0" (635 mm) deep as specified below. The 8" (204 mm) deep rack will support equipment up to 6-1/2" (165 mm) deep. The 12" (305 mm) deep rack will support equipment up to 10-1/2" (266 mm) deep. The 18" (457 mm) deep rack will support equipment up to 16-1/2" (419 mm) deep. The 25" (635 mm) deep rack will support equipment up to 23-1/2" (596 mm) deep. The equipment depth is limited by the rack's wall support at the top and bottom 2U on the 8" (204 mm)

and 12" (305 mm) deep racks and at the top and bottom 3U on the 18" (457 mm) and 25" (635 mm) deep racks.

7. The rack will be rated to support 85 pounds (38.6 kilograms) of equipment. Load bearing capacity will be stated in the manufacturer's product literature.
8. Finish shall be epoxy-polyester hybrid powder coat (paint) in the color(s) specified below.
9. Each rack will include 12 each #12-24 equipment mounting screws.
10. Design Make:
Chatsworth Products, Inc. (CPI),
EasySwing Wall-Mount Rack

Part Number **13602-108**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 6.5"D (165 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Gray.

Part Number **13602-208**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 6.5"D (165 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Computer White.

Part Number **13602-708**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 6.5"D (165 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Black.

Part Number **13602-112**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 10.5"D (266 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Gray.

Part Number **13602-212**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 10.5"D (266 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Computer White.

Part Number **13602-712**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 10.5"D (266 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Black.

Part Number **13602-118**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 16.5"D (419 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 18"D (457 mm), Gray.

Part Number **13602-218**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 16.5"D (419 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 18"D (457 mm), Computer White.

Part Number **13602-718**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 16.5"D (419 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 18"D (457 mm), Black.

Part Number **13602-125**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 23.5"D (596 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 25"D (635 mm), Gray.

Part Number **13602-225**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 23.5"D (596 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 25"D (635 mm), Computer White.

Part Number **13602-725**, EasySwing Wall-Mount Rack, 11U x 19" EIA x 23.5"D (596 mm) Usable, 24.5"H (622 mm) x 20.3"W (516 mm) x 25"D (635 mm), Black.

Part Number **13604-108**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 6.5"D (165 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Gray.

Part Number **13604-208**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 6.5"D (165 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Computer White.

Part Number **13604-708**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 6.5"D (165 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 8"D (204 mm) Overall, Black.

Part Number **13604-112**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 10.5"D (266 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Gray.

Part Number **13604-212**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 10.5"D (266 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Computer White.

Part Number **13604-712**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 10.5"D (266 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Black.

Part Number **13604-118**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 16.5"D (419 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 18"D (457 mm), Gray.

Part Number **13604-218**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 16.5"D (419 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 18"D (457 mm), Computer White.

Part Number **13604-718**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 16.5"D (419 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 18"D (457 mm), Black.

Part Number **13604-125**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 23.5"D (596 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 25"D (635 mm), Gray.

Part Number **13604-225**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 23.5"D (596 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 25"D (635 mm), Computer White.

Part Number **13604-725**, EasySwing Wall-Mount Rack, 19U x 19" EIA x 23.5"D (596 mm) Usable, 38.5"H (978 mm) x 20.3"W (516 mm) x 25"D (635 mm), Black.

Part Number **13608-112**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 10.5"D (266 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Gray.

Part Number **13608-212**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 10.5"D (266 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Computer White.

Part Number **13608-712**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 10.5"D (266 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 12"D (305 mm) Overall, Black.

Part Number **13608-118**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 16.5"D (419 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 18"D (457 mm), Gray.

Part Number **13608-218**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 16.5"D (419 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 18"D (457 mm), Computer White.

Part Number **13608-718**, EasySwing Wall-Mount Rack, 26U x 19" EIA x 16.5"D (419 mm) Usable, 51.5"H (1308 mm) x 20.3"W (516 mm) x 18"D (457 mm), Black.

- B. Equipment-Mounting Hardware for EasySwing Wall-Mount Rack:
1. Provide additional equipment-mounting hardware if required to attach equipment to the rack.
 2. Equipment mounting hardware will be combination pan head, pilot point mounting screws, threaded #12-24 and 5/8" long.
 3. Design Make:
Chatsworth Products, Inc. (CPI),
Equipment Mounting Hardware

Part Number **40605-005**, Hardware Kit For Threaded Mounting Rails, 12-24 Screws, Package Of 50, Black.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Wall-Mounted Swing Gate Equipment Rack (EasySwing Wall-Mount Rack)

1. Attach the rack to the wall so that the swing gate can be opened fully without obstruction by other building, storage or architectural components. Follow the manufacturer's assembly and installation instructions when securing the rack to the wall. The rack should be installed on a plywood backboard or attached to a masonry wall. The rack should not be attached to sheet rock (gypsum wall board). The installer must provide (1/4") installation hardware.
2. Cables shall enter/exit the rack on the hinged side of the swing gate. Use the included cable management straps to attach, guide and support premise cables from the rack frame. The installer will provide 19" EIA rack-mount cable management panels to organize patch cords.