SECTION 27 11 19
COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

PART 1 – GENERAL

1.01 DESCRIPTION

A. The work covered by this section of the Specifications includes all labor necessary to perform and complete such construction, all materials and equipment incorporated or to be incorporated in such construction and all services, facilities, tools and equipment necessary or used to perform and complete such construction. The work of this section shall include, but is not limited to, the following:

1. Telecommunications room cable termination system complete with all necessary installation hardware.

1.02 QUALITY ASSURANCE

A. Refer to Section 27 00 00 for general details.

B. As noted in Section 27 00 00, all contractors and installers working on structured cabling system elements must hold a current manufacturer’s certification for each individual component they install.

1.03 CODES AND STANDARDS

A. Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations in Section 27 00 00.

B. ANSI/TIA/EIA-568-C.2.

C. UL listed

1.04 SUBMITTALS

A. Also refer to Section 27 00 00.

B. Shop Drawings:

1. Shop drawings shall show the locations of all termination blocks and the end location of the cable that will be terminated on them.

C. Submit Manufacturer’s Cut Sheets for the following:

1. Any products not specifically listed in the PRODUCTS section shall require a submittal of the manufacturer’s cut sheets.

1.05 IDENTIFICATION

A. Termination blocks are to be labeled using built in labeling system. Details for terminal block labeling are to
be provided by a campus telecommunications representative.

B. Patch panels are to be labeled with factory made windowed labeling inserts and are to be typewritten on paper, and inserted behind the windows.

C. Lacking provision for factory made windowed labeling inserts, ½" white permanent polyester labels with black labeling shall be accepted.

D. Refer to Section 27 05 53 for additional details.

1.06 DEFINITIONS

A. N/A

1.07 WARRANTY

A. Refer to Section 27 00 00 for general details.
PART 2 – PRODUCTS

2.01 PRODUCT CONSISTENCY

A. Product Consistency: Any given item of equipment or material shall be the product of one manufacturer throughout the facility. Multiple manufacturers of any one item will not be permitted.

2.02 CATEGORY 6A HIGH-DENSITY REVERSE PATCH PANEL SYSTEM (WALL MOUNT)

A. High-density reverse-direction patch panel system shall include reverse-direction patch cord design and 110-style connecting block system. System shall also include integrated cable management for increased density, a clean cordless appearance, and shall facilitate tool-less moves, additions, and changes. System shall support following cabling categories:

1. Category 5e, Category 6 or Category 6A
2. Manufacturer/Product: Commscope Visipatch 360 System

B. Back Panel & Wiring Block

1. Wall mount interlocking stackable back panels provide sufficient depth to facilitate proper bend radii for Cat 6A / 10Gb cables. Back panels are 4U high, and will fit four Wiring Blocks.
2. Snap-in wiring blocks shall utilize balanced offset IDC contacts and parasitic ring to meet Category 6A standards. The blocks shall terminate 32 pairs per row or connection of eight 4-pair patch cords per row. Latching system shall have a ¼ turn knob assisted detachment for easier changes. Wiring block shall have an integrated label holder.
3. Manufacturer/Product: Commscope Part#: VP360-12U-96P

C. Vertical Cable Management w/ Vertical Trough Cover

1. Vertical wire management units are 12U (12 Wire Blocks) tall with integrated cable fasteners. Vertical wire management shall be enclosed with double hinged, removable doors (Vertical Trough Covers).
2. One Vertical Trough Cover is required for each 12U Vertical Cable Management unit.
3. Manufacturer/Product: Commscope Part#: VP360-12U-10VTCM

D. Side Panel for Vertical Cable Management

1. Side Panels shall be installed on any configuration where vertical trough kit(s) will be on the outside edge of the installation.
2. Manufacturer/Product: Commscope Part#: VP360-SIDEPNL

E. Horizontal Cable Management

1. Horizontal wire management shall be comprised of a 4U back panel base, horizontal trough, and available covers in 19”, 29” and 37” lengths.
2. Manufacturer/Product: Commscope Part#: VP360-HCM-Kit-19
3. Manufacturer/Product: Commscope Part#: VP360-HCM-Kit-27
4. Manufacturer/Product: Commscope Part#: VP360-HCM-Kit-29
5. Manufacturer/Product: Commscope Part#: VP360-HCM-Kit-37

2.03 PATCH PANEL (RACK MOUNT)
A. Rack mountable in standard 19” telcom rack.
B. Meet or exceed ANSI/TIA- 568-C.2 Category 6A specifications.
C. Available in 24- and 48-port configurations featuring universal A/B labeling.
D. 110 connector terminations on rear of panel allowing installation of 22 to 24 AWG cable.
E. High-strength steel panel with a removable rear mounted cable management bar.
F. Includes front and rear labels.
G. Backward compatible with Category 6, 5e, and 5 cords and cables.
H. 20-Year Extended Warranty when included as part of a registered structured cabling system.
I. Manufacturer/Product: Commscope Part#: 360-IPR-1100-E-GS6-1U-24
J. Manufacturer/Product: Commscope Part#: 360-IPR-1100-E-GS6-2U-48

2.04 PATCH PANEL (AV RACKS, WALL RACKS, WALL CABINETS)
A. Rack mountable in standard 19” telcom rack.
B. Meet or exceed ANSI/TIA- 568-C.2 Category 6A specifications.
C. Available in 24- and 48-port configurations.
D. Shall accept M-Series information outlets.
E. High-strength steel panel shall include rear mounted cable management bar.
F. Includes front labels.
G. 20-Year Extended Warranty when included as part of a registered structured cabling system.
H. Manufacturer/Product: Commscope Part#: 360-E-MOD-1U-24
I. Manufacturer/Product: Commscope Part#: 360-E-MOD-2U-48
PART 3 – EXECUTION

3.01 GENERAL

A. Location and placement of wall field shall be as shown on the Drawings or defined in these specifications and schedules.

B. Supply termination hardware to accommodate 30% growth in cable terminations per floor.

C. Termination hardware shall be assembled and installed as per the manufacturers’ printed instruction.

D. Do not install termination blocks until after their installation location and arrangement has been approved by the campus telecommunications representative.

3.02 QUANTITIES

A. Quantities of wall field and components, patch panels, etc. shown on the Drawings are illustrative only and are meant to indicate the general configuration of the work. The Contractor is responsible for providing the correct quantities of blocks, connectors, etc. necessary to terminate, cross-connect and patch the volume of cable described herein and shown on the Drawings.

3.03 INSTALLATION

A. Installation Pattern (Wall Mount Reverse Patch Panel System)

1. A minimum installation pattern is composed of a 4U Back Panel with four wiring modules (Tie or Riser Cables), a 12U Vertical Cable Management unit with Vertical Trough Cover, three 4U Back Panel with 12 wiring modules (Station Cables), and a 27” width Horizontal Cable Management unit.

2. For additional tie or riser cables, add a second column to the left. Expand that column down to a max of six Back Panels, and then expand to the second column on the right as needed.

3. For additional station cables, expand that column down to a max of six Back Panels (192 cables), then start an additional column to the right.

4. Leave sufficient Back Panels for a 30% growth in cable terminations per floor.

5. If the TR serves additional floors, start a new column for each separate floor.

6. If a second column of Back Panels is added, then an additional Vertical Cable Management column is also required.

7. Every second column of back panels is to be followed with a Vertical Cable Management column.

8. Horizontal Cable Management should fully cover the deployed width of the wall field.

9. Top of wall patch field is to be at 66” AFF, and the left side of the full wall field is to be at least 3’ from the corner of the room.

10. See details in construction drawings for specific mounting locations.
3.04 GROUNDING & BONDING

A. All wall termination fields are to be individually grounded to the TGB/TMGB with a #6 AWG copper bonding conductor.

B. Refer to Section 27 05 26 for additional details.

3.05 TESTING

A. Devices are to be tested as part of the required system testing for the cabling they support.

3.06 ACCEPTANCE

A. Any deviation from the provided drawings will require submission and approval of a revised shop drawing before the installation begins.

B. Once the installation and testing has been completed and the campus telecommunications representative is satisfied that all work is in accordance with the Contract Documents, the representative will notify the Contractor and/or campus project manager in writing or via email.

3.07 RECORD (ASBUILT) DRAWINGS

A. The Project Record Drawings shall show the types and locations of installed cable termination hardware.

END OF SECTION
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