

SECTION 27 11 19
COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

Part 1 General

1.1 Summary

- 1.1.1 This section specifies the products and installation communications termination blocks and patch panels for copper, fiber, and coaxial backbone cables.

1.2 Related Documents

- 1.2.1 The latest versions of the following codes, standards, and guidelines shall be followed. Bring to CCS' immediate attention where construction documents or conditions differ from requirements in codes, standards, guidelines and specifications.

- 1.2.2 The following codes, as required by law:

Ontario Electrical Safety Code (OESC)

Ontario Building Code (OBC)

- 1.2.3 The following standards:

1. ANSI/TIA-568-C.0, Generic Telecommunications Cabling for Customer Premises

2. ANSI/TIA-568-C.2, Balanced Twisted-Pair Telecommunications Cabling and Components Standards

3. ANSI/TIA-568-C.4, Broadband Coaxial Cabling and Components Standard

4. TIA-606-B, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings

- 1.2.4 The following guidelines:

1. BICSI, Telecommunications Distribution Methods Manual (TDMM)

2. BICSI, Information Transport Systems Installation Methods Manual (ITSIMM)

- 1.2.5 The following project specifications:

1. 27 05 26 Grounding and Bonding for Communications

2. 27 05 53 Identification for Communications Systems

1.3 Quality Assurance

- 1.3.1 Termination blocks and patch panels are to be covered by the Contractor's and Manufacturer's System Warranty

1.4 Submittals

- 1.4.1 The following submittals are due at the Pre-Construction Phase, in accordance with submittal requirements in Section 27 05 00 Communications:

1. Product Information

a) Provide manufacturer's product information cutsheet or specifications sheet with the specific product number identified or filled out.

2. Shop Drawings

SECTION 27 11 19
COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

1.4.2 The following submittals are due Post-Construction, in accordance with the submittal requirements in Section 27 05 00:

1. Record Drawings
2. Manufacturer and Maintenance Manuals for all installed equipment.
 - a) Provide manufacturer's product information cutsheet or specifications sheet with the specific product number identified or filled out.
 - b) List of bill of materials, including all parts, pieces and connectors required for installation of the cable tray system.

Part 2 Product

2.1 General Requirements

.1 IDC Termination Blocks

All horizontal voice cables shall be terminated on the backboard (as shown on drawings) unless otherwise specified in this document.

All cables shall be terminated on IDC connectors complete with associated hardware such as mounts, cable/cross-connect wire managers, etc.

The IDC connectors shall accept 22 to 26 AWG solid copper conductors.

The IDC mounts shall accept cables from behind the connector.

2.2 Specified Product:

Specified Product:

| | Description | Part No. |
|--------|---|----------|
| Belden | GigaBIX Mount, 12 Connector | AX101472 |
| Belden | GigaBIX Cable Management Module | AX101469 |
| Belden | GigaBIX Patch Cord Organizer | AX101468 |
| Belden | GigaBIX Patch Cord Organizer Cover | AX101521 |
| Belden | GigaBIX Horizontal Channel Plate | AX101520 |
| Belden | GigaBIX Connector, 6-port | AX101447 |
| Belden | GigaBIX Connector, 25-pair | AX101448 |
| Belden | GigaBIX Management Ring | AX101478 |
| Belden | GigaBIX Designation Strip (50/pack) | AX101483 |
| Belden | BIX Mount (250 pair) – QMBIX10A | A0340836 |
| Belden | BIX Mount (300 pair) - QMBIX12E | A0270164 |
| Belden | BIX Mount (50 pair) - QMBIX10C | A0284798 |
| Belden | BIX Distribution Connector (5 pair marking) - QCBIX1A | A0266828 |
| Belden | BIX Distribution Connector (4 pair marking) - QCBIX1A4 | A0393146 |
| Belden | BIX Modular Jack Connector (6 port, PS5, T568A/B Coded) | AX100798 |
| Belden | Distribution Ring | A0270168 |
| Belden | Designation Strip (50/pack) | A0270169 |
| Belden | 19" Rack Bracket Kit | A0352331 |

SECTION 27 11 19
COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

2.2.1 Cable management in the form of distribution rings or approved similar shall be provided between columns and rows of IDC mounts to support cross connect management in a manner recommended by the manufacturer.

2.2.2 Modular Copper Patch Panels – 24 Port

.1 All horizontal UTP cabling shall be terminated on 1U, 24 port modular patch panels.

.2 All copper patch panels shall be black.

.3 All modular patch panels shall be populated with UTP modules as required. Module category and colour shall meet requirements set out in Section 27 15 43 - Communications Faceplates and Connectors.

.4 Specified Product:

| Specified Product: | | Cat |
|--------------------|-----------|-----|
| Panduit | NKPP24FMY | 6 |
| Hubbell | P6E24 | 6 |

2.2.3 Modular Copper Patch Panels – 48 Port

.1 All horizontal UTP cabling shall be terminated on 2U, 48 port modular patch panels.

.2 All copper patch panels shall be black.

.3 All modular patch panels shall be populated with UTP modules as required. Module category and colour shall meet requirements set out in Section 27 15 43 - Communications Faceplates and Connectors.

.4 Specified Product:

| Specified Product: | | Cat |
|--------------------|-----------|-----|
| Panduit | NKPP48FMY | 6 |
| Hubbell | P6E48 | 6 |

2.2.4 Angled Modular Copper Patch Panels – 24 Port

.1 All horizontal UTP cabling shall be terminated on 1U, 24 port angled modular patch panels.

.2 All copper patch panels shall be black.

.3 All angled modular patch panels shall be populated with UTP modules as required. Module category and colour shall meet requirements set out in Section 27 15 43 - Communications Faceplates and Connectors.

.4 Specified Product:

| | | |
|---------|--------------|----|
| Panduit | NKPPA24FMY | 6 |
| Panduit | DPA246X88TGY | 6A |
| Hubbell | P624AU | 6 |
| Hubbell | HP6A24AU | 6A |

2.2.5 Angled Modular Copper Patch Panels – 48 Port

SECTION 27 11 19
COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

- .1 All horizontal UTP cabling shall be terminated on 2U, 48 port angled modular patch panels.
- .2 All copper patch panels shall be black.
- .3 All angled modular patch panels shall be populated with UTP modules as required. Module category and colour shall meet requirements set out in Section 27 15 43 - Communications Faceplates and Connectors.
- .4 Specified Product:

| Specified Product: | | Cat |
|--------------------|--------------|-----|
| Panduit | NKPPA48FMY | 6 |
| Panduit | DPA486X88TGY | 6A |
| Hubbell | P648AU | 6 |
| Hubbell | HP6A48AU | 6A |

Part 3 Execution

3.1 General

- 3.1.1 Follow all manufacturers' instructions. Pay special attention to the cable/system manufacturer's recommended minimum bend radius.
- 3.1.2 Coordinate with all other trades prior to installation.
- 3.1.3 Quantity on drawings is illustrative in nature. Provide as many wall-blocks, patch panels, enclosures and inserts to support the necessary quantity of cable pairs and strands.

3.2 Copper

- 3.2.1 For terminations, only remove as much as sheath as necessary.
 1. Maintain sheath to within 1" for category 3 cables.
 2. Maintain sheath to within 1/2" for category 5e cables and above.

End of Section 27 11 19