

**SECTION 27 0526****GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS****PART 1 - GENERAL****1.1 Summary**

- A. Provide all labor, materials, and equipment for the complete installation of work called for in the Contract Documents.
- B. This section includes the minimum requirements for the equipment and cable installations in telecommunications rooms, server rooms, and communications equipment rooms.
- C. Included in this section are the minimum composition requirements and installation methods for the following:
  - a. Bonding accessories

**1.2 Related Sections**

- A. 27 0000 – Communications
- B. 27 0529 - Hangers And Supports For Communications Systems
- C. 27 0553 - Identification And Labeling Of Communications Systems
- D. 27 1100 - Communications Equipment Room Fittings
- E. 27 1500 - Communications Horizontal Cabling
- F. 27 1543 - Faceplates And Connectors

**1.3 References and Standards**

- A. Material and work specified herein shall conform with the applicable requirements of:
  - 1. TIA-568-C: Commercial Building Telecommunications Wiring Standard
  - 2. TIA-569-C: Commercial Building Standard for Telecommunications Pathways and Spaces.
  - 3. TIA-607-B: Commercial Building Grounding and Bonding Requirements for Telecommunications.
  - 4. ANSI/TIA- 606-A Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
  - 5. ANSI-J-STD – 607 Joint Standard for Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.

**1.4 Submittals**

- A. Provide product data for the following:
  - 1. Manufacturer's cut sheets, specifications, and installation instructions for all products.

**1.5 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

August 20, 2024

BID SET

subject to the control and approval of Owner's Representative. Equipment and materials shall be of the quality and manufacturer 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 Telecommunications Industry Association (TIA) recommended installation practices when installing communications/data cabling.

## PART 2 - PRODUCTS

### 2.1 Bonding Accessories

- A. Two Mounting Hole Ground Terminal Block
- B. Compression Lugs
- C. Antioxidant Joint Compound
- D. C-Type, Compression Taps
- E. Pedestal Clamp with Grounding Connector
- F. Pipe Clamp with Grounding Connector
- G. Equipment Ground Jumper Kit

## PART 3 - EXECUTION

### 3.1 Installation

- A. Ground Terminal Block
  1. Every rack and cabinet shall be bonded to the TMGB or TGB.
  2. Minimum bonding connection to racks and cabinets shall be made with a rack-mounted two-hole ground terminal block sized to fit the conductor and rack and installed according to manufacturer recommendations. Owner requirements supersede.
  3. Remove paint between rack/cabinet and terminal block, clean surface and use antioxidant between the rack and the terminal block to help prevent corrosion at the bond. Owner requirements supersede.
- B. Equipment Ground Jumper Kit
  1. Bond the equipment to a vertical rack-mount busbar or ground bar using ground jumper as per the manufacturer's recommendations.
  2. Clean the surface and use antioxidant between the compression lugs on the jumper and the rack-mount busbar or ground bar to help prevent corrosion at the bond.
- C. Labeling.
  1. Label each bonding and grounding conductor on both ends within 4" of terminations.
  2. All indoor labeling shall be machine generated, with adhesive to be placed on grounding conductors. All outdoor labeling shall be metal non-corrosive tags stamped with identification markings approved by the Owner. Metal tags shall be designed for outdoor use.

END OF SECTION