

SECTION 27 16 00

COMMUNICATIONS CONNECTING CORDS, DEVICES AND ADAPTERS

PART 1 - GENERAL

1.1 GENERAL

- A. A.This section details product and execution requirements for Communications Connecting Cords, Devices & Adapters.
- B. Included are:
 - 1. 4-pair Modular Patch Cords
 - 2. Multimode Fiber Optic Patch Cords
 - 3. Single-mode Fiber Optic Patch Cords
- C. Quantities and lengths (if applicable) for each item shall be as detailed in the Execution part of this Section.

1.2 RELATED WORK

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which identifies related specification sections in this and other Divisions (if applicable).

1.3 REFERENCES & STANDARDS

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which identifies pertinent References & Standards.

1.4 DEFINITIONS AND ABBREVIATIONS

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which provides information on Definitions and Abbreviations used in this and related sections.

1.5 WORK BY OWNER

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which identifies Work by the Owner affecting the sub-system(s) covered by this section.

1.6 SUBMITTALS

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which provides general guidelines for product and/or installation information to be submitted by the contractor.

1.7 QUALITY ASSURANCE

- A. Refer to Section 27 00 00 "Common Work Results for Communications", which identifies general quality assurance requirements for the project.

PART 2 - PRODUCTS

2.1 4-PAIR MODULAR PATCH CORDS

- A. 4-pair Modular Patch cords are used to connect equipment to the communications outlet and for signal routing within the IDF.
- B. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure Category 6A performance. Patch cords shall have latch guards to protect against snagging.
- C. Patch cords shall have color-coded boots for circuit identification
- D. 4-pair Modular Patch Cords shall:
 - 1. be constructed of four (4), 24 AWG, 7/32 stranded tinned copper twisted pairs, insulated with polyethylene, and
 - 2. be unshielded (UTP).
 - 3. be plenum rated for ceiling.
- E. Patch Cord Modular Plugs shall be 8P8C and be pinned EIA/TIA T-568.
 - 1. The dimensions of the finished plug assembly shall allow for patch cords to be positioned in adjacent ports of the Modular Patch Panel specified herein.
- F. Patch Cord Jacket shall be colored PVC and be configured with a snagless molded boot of matching color (refer to Execution part of this section for color requirements),
 - 1. Patch Cord color shall be
 - a. Workstation: BLACK
 - b. BDF/IDF: BLUE
- G. Patch Cords shall meet or exceed the performance requirements of EIA/TIA Category 6A.
 - 1. Where required by the Manufacturers performance Warranty, the Patch Cords shall be by the cabling and/or connecting component

manufacturer whose products are installed under this project or by a manufacturer recognized and approved by that manufacturer.

- H. Patch Cords shall be 100% factory tested.
- I. Patch Cords shall be ETL Verified.
- J. Patch Cords shall be by a manufacturer recognized by the manufacturer(s) of the cable and termination components used in the horizontal station "link".
 - 1. Patch Cords shall be channel balanced with the Jacks & Patch Panels specified herein for use in the Horizontal Cabling subsystem.
- K. Design Make: Manufacturer: Ortronics Part. No. OR-MC6Axx-06 (Where xx is the distance in feet)

2.2 FIBER OPTIC PATCH CORDS

- A. Fiber Optic Patch Cords are used to connect equipment to the backbone cabling and (if applicable) interconnect backbone cabling segments.
- B. Factory-made, dual-fiber cables
- C. Multimode Fiber Optic Patch Cords shall:
 - 1. be duplex LC - duplex LC type,
 - 2. incorporate multimode optical fiber meeting the specifications of the backbone cable system specified herein ,
 - 3. incorporate ceramic ferrules.
 - 4. have connector bodies that are BLACK in color,
 - 5. incorporate strain relief at the rear of the connector body,
 - 6. have an AQUA cable jacket, and
 - 7. be duplex construction with channels of equal length.
 - 8. Manufacturer: Ortronics
 - 9. Manufacturer: Ortronics. Part. No. 797902QD1200XXM (Where xx is the distance in meters.)
- D. Single-mode Fiber Optic Patch Cords shall:
 - 1. be duplex LC - duplex LC type
 - 2. incorporate single-mode optical fiber meeting the specifications of the backbone cable system specified herein,
 - 3. incorporate ceramic or glass-in-ceramic ferrules,
 - 4. have connector bodies that are BLUE in color,
 - 5. incorporate strain relief at the rear of the connector body,
 - 6. have a YELLOW cable jacket, and
 - 7. Be duplex construction with channels of equal length.
 - 8. Manufacturer: Ortronics
 - 9. Manufacturer: Ortronics. Part. No. 040402R5Z200XXM (Where xx is the distance in meters.)

- E. Fiber Patch Cords shall be 100% factory-tested.
 - 1. Test documentation and/or manufacturer's quality control certification shall be included with each Patch Cord.

2.3 MODULAR Y-ADAPTERS (8P8C-TO-RJ11)

- A. Shall not be used on this project.

PART 3 - EXECUTION

3.1 GENERAL

- A. Furnish loose materials per owner/design-team direction. Obtain written confirmation by an authorized representative of NYU IT for all loose materials furnished.
- B. Prior to Construction, confirm connector types, length and quantities with Owner Design team, Network Integration Contractor, Telephony Integration Contractor, Security Integration Contractor, AV Integration Contractor, Wi-Fi Integration Contractor, RFID Integration Contractor, Philips Wi-Fi Integration Contractor and BMS Integration Contractor. For purposes of bidding, consider requirements as detailed below.

3.2 QUANTITIES & LENGTHS

- A. Furnish and install 4-pair Modular Patch Cords in the quantities (qty.) as follows:
 - 1. The following station-side and IDF-side patch cords shall be provided.
 - a. Nurse Stations, Conference Rooms, Patient Rooms, Waiting Areas, Staff Break Rooms, Wireless Access Points, CCTV Cameras, RTLS
 - 1) Port 1 - 100% in IDF and 100% at Station
 - 2) Port 2 - 100% in IDF and 100% at Station
 - 3) Provide 10ft. patch cord lengths at the station, and half 7ft. and half 10ft lengths at the IDF.
 - b. Offices, Workstations, Exam Rooms, Printers, Docking Stations, misc spaces
 - 1) Port 1 - 100% in IDF and 100% at Station
 - 2) Port 2 - 100% in IDF and 100% at Station
 - 3) Provide 10ft. patch cord lengths at the station, and half 7ft. and half 10ft lengths at the IDF.
 - 2. Provide PROPER length to avoid tear-drop effect on patch rack.
 - 3. Qty. shall be coordinated with NYU IT 4 weeks prior to order
- B. Furnish Fiber Optic Patch Cords in the quantities as follows:
 - 1. 2nd floor BDF
 - a. (12) 10g – 50 micron LC/SC multimode, 7M

- b. (14) 10g – 50 micron LC/SC multimode, 3M
- c. (4) 10g – 50 micron SC/SC multimode, 3M
- 2. 3rd floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 3. 4th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 4. 5th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 5. 9th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 6. 10th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 7. 11th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 8. 13th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 9. 14th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 10. 24th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M
- 11. 25th floor IDF
 - a. (3) 10g – 50 micron LC/LC multimode, 7M
 - b. (3) 10g – 50 micron LC/LC multimode, 3M
 - c. (1) 10g – SC APC/SC APC singlemode , 3M

- C. All quantities and colors shall be coordinated prior to order - confirm connector types, length and quantities with Owner Design team, Network Integration Contractor, Telephony Integration Contractor, Security Integration Contractor, and BMS Integration Contractor four (4) week prior to expected installation date to ensure proper colors, lengths, and quantities are on hand.

END OF SECTION