



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Request for Quotation

RFQ NUMBER  
**CABLE10**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF:  
**JO ANN ADKINS**  
**304-558-8802**

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

ALL STATE AGENCIES  
 AND POLITICAL SUBDIVISIONS  
 VARIOUS LOCALES AS INDICATED  
 BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/27/2010				

BID OPENING DATE: **05/18/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
***** ADDENDUM NO. 1 *****						
1. CABLE10 REVISED PRICING PAGES, ATTACHED.						
2. QUESTIONS AND ANSWERS, ATTACHED.						
***** END OF ADDENDUM NO. 1 *****						
0001	1	EA	285-10	CABLE ACCESSORIES, ELECTRIC		

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS**  
**REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

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**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

1Q	What is the total Term Length of this proposed contract, with extension options?
1A	CABLE10 will be for one (1) year with the two (2) one (1) year renewal terms possible.
2Q	Is the CABLE07 contract usage reports available for all material purchased from June 2007 to present?
2A	Approximately \$400,000.00/yr
3Q	CABLE10 RFQ states that the prices quoted in the vendor(s) quote will not be subject to any increase for the original contract term of one year. The majority of manufactures quotes are only valid for a period of 30 days due to the current price fluctuation in raw material. Therefore most vendor(s) will be unable to extend prices for a period of one year.
3A	Prices are to remain firm for one year.
4Q	CABLE10 RFQ states that vendors intending to bid an <b>alternative</b> product shall submit descriptive literature and samples. These samples must be received no later than five (5) days after the bid opening date. With 323 items on CABLE10 RFQ there is the potential that The Purchasing Division could receive samples of all 323 items from the CABLE10 RFQ from all responding vendors. Is this the intent of CABLE10 RFQ?
4A	<b>No. Only requesting samples for Items 45, 46, 47, 48, 49, 50, 72, 73, 74, 75, 84, 85, 86, 104, 105, 106, 107, 287, 288, 289, 290, 296 &amp; 297 if alternative items are bid.</b>
5Q	CABLE10 RFQ request that samples & literature must be included for each of the following 17 items: Items 45 - 50, 72 - 75, 84 - 86 and 104 - 107 Are samples and literature also required to be included for the following items: Items 76 - 79, 108, 109, 287 - 290, 296 and 297?
5A	<b>See answer to Question 4.</b>
6Q	There is multiple Category 6 specifications included with CABLE10 RFQ for cable, patch panels and connectors. Could you clarify which specifications go with what item on the CABLE10 RFQ pricing pages?
6A	<b>Cat.6 specifications: specs on page 2 of 32 refer to Items 84 &amp; 85; specs on page 3 of 32 refer to Items 104, 105, 106, 107; specs on page 4 of 32 refer to Item 86; specs on page 10 of 32 through 15 of 32 refer to Items 284-286, respectively. specs on page 16 of 32 refer to Items 287 &amp; 288; specs on page 17 of 32 refer to Items 289 &amp; 290;</b>

	specs on page 18 of 32 refer to Items 296 & 297.
7Q	On the pricing pages of CABLE10 RFQ. Items 226 – 249 are duplex fiber optic jumpers, 50/125. Which grade of 50/125 is required?
7A	<b>OM2</b>
8Q	On the pricing pages of CABLE10 RFQ. Items 42 – 44 part numbers do not seem to be valid. Who is the manufacture? And are these part numbers correct?
8A	<b>25-Pair Plenum Cat.3 cable equal to Superior Essex 18-475-36</b> <b>50-Pair Plenum Cat.3 cable equal to Superior Essex 18-579-36</b> <b>100-Pair Plenum Cat.3 cable equal to Superior Essex 18-799-36</b>  Corrected CABLE10 Pricing Sheets attached.
9Q	Is there any way to lower the price increase time frame from 1 year to 6 months? Due to unstable market conditions a time frame of 1 year just doesn't seem reasonable at this time.
9A	See #3.
10Q	Is it WV intention to award this to one vendor or several?
10A	<b>One vendor – this will not be split award.</b>

## Category 6 Plenum & Non-plenum Cable

### REFERS TO ITEMS 84 & 85 ON PRICING SHEETS

#### **Minimum specifications:**

Unshielded twisted pair cable tested to 650 MHz and ETL verified to TIA/EIA-568-B.2-1 Category 6.  
A core separator that isolates the pairs throughout the length of the cable must be included.  
All plenum cable must be 4X4 plenum construction.

- **28 dB Minimum ACR @ 100 MHz** – Proven support for Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, IEEE 802.3af Power Over Ethernet for VoIP, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps, 1.2 and 2.4 Gbps.
- **13 dB Minimum** – Improvement in Near End Crosstalk.
- **.25 ns/meter Maximum Skew** – Tightly controlled propagation delay.
- **Enhanced Performance Parameters** – All electrical characteristics proven to exceed TIA/EIA-568-B.2-1 and ISO/IEC 11801 Category 6 requirements: NEXT and ELFEXT (Pair-to-Pair and Power Sum), Insertion Loss, Return Loss, and Delay Skew.

## Electrical Characteristics

#### STANDARDS:

EXCEEDS TIA/EIA-568-B.2-1 CAT 6, ISO/IEC 11801:2002 CAT 6 & IEC 61156-5 CAT 6 HORIZONTAL CABLE

CONDUCTOR DCR: 7.8  $\Omega$ /100m (23.8  $\Omega$ /Mft) MAX

DCR UNBALANCE: 3% MAX

MUTUAL CAPACITANCE: 46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE PAIR/GROUND: 66 pF/100m (200 pF/Mft) MAX

CHARACTERISTIC IMPEDANCE: 100  $\Omega$   $\pm$  15% (1-350 MHz)

#### INPUT IMPEDANCE:

100  $\Omega$   $\pm$  15% (1-100 MHz)

100  $\Omega$   $\pm$  18% (>100-200 MHz)

100  $\Omega$   $\pm$  22% (>200-350 MHz)

PROPAGATION DELAY: 534 + 36/ $\sqrt{f}$  ns/100m MAX

DELTA DELAY (SKEW): 25 ns/100m MAX

NOMINAL VELOCITY OF PROPAGATION (NVP): PLENUM 72%, NON-PLENUM 68%

## **Category 6 Patch Panels**

### **REFERS TO ITEMS 104, 105, 106, & 107 ON PRICING SHEETS**

The Category 6 patch panel shall meet or exceed the requirements for Category 6 described in TIA/EIA-568-B.2-1 as well as the Class E requirements described in ISO/IEC 11801-B. The panels shall feature both T568A and T568B wiring configurations, white IDC 110-punchdown modules, mounting standoffs for cable management bars, color-coded front window labeling, and a termination standoff for patch panel earthing/grounding. The panels shall have universal T568A and T568B wiring card for terminations. The panels shall be made of 16 gauge steel, and shall have a black painted finish with white silk-screening. The plastic elements shall be fire-retardant with a UL flammability rating of 94V-0. The panel shall be offered in 12-, 24, 48-port configurations as well as an 89D 12-port configuration. The patch panel shall be configured with six port modules. The 110 termination on the rear of the panel shall follow normal installation color sequence (blue, orange, green, brown) from left to right.

### **APPLICATION**

Category 6 patch panels must be designed for use on 19" standard racks and cabinets; must allow for standard 110 terminations on the rear of the panel which follows the normal installation color sequence (blue, orange, green, brown) from left to right; and must be designed for use in high megabit applications such as Gigabit Ethernet.

### **FEATURES**

- Universal T568A and T568B wiring cards for 110 style IDC terminations.
- Color-coded front labeling for easy port identification (TIA-606-A compliant).
- Grounding standoff for optional earthing/grounding.

### **STANDARDS COMPLIANCE**

Category 6 patch panels must meet or exceed the Category 6/Class E requirements for channel/component level performance per TIA/EIA-568-B.2-1 and ISO/IEC 11801-B. Components certified per cULus, NOM and ACA requirements.

### **PHYSICAL SPECIFICATIONS**

Dimensions: 12-, 24-Port - 1.725"H x 19"W x 1.474"D

48 Port - 3.475"H x 19"W x 1.474"D

12-port Patch Block – 10.0"H x 2.3"W x 1.474"D

Capacity: 12-, 24-, 48-port and 12-Port Patch Block

Materials: 16 gauge steel, painted black, PCB and plastic components are rated UL 94V-0

### **DESIGN SPECIFICATIONS**

- Color coded front window labeling for easy port identification.
- Mounts on 19" equipment racks.
- Panel offered in 12-, 24-, 48-Port configurations and Universal 12-port U89 Block for wall mount applications.
- Connector modules are in groups of six.
- Includes rear cable management bars.

## **Category 6 Modular Connectors**

### **REFERS TO ITEM 86 ON PRICING SHEETS**

The Category 6 modular connector shall meet or exceed the requirements for channel and component-level performance described in TIA/EIA-568-B.2-1 Category 6 standards. The modular connector shall be individual snap-in style. The connectors shall also be in compliance with all National Electrical Codes; compliant with FCC Part 68; UL listed; and independently verified. In addition to Category 6 compliance, the connector shall have the ability to support high megabit and shared-sheath applications. All plastics used in construction of the connector bodies shall be fire-retardant with a UL flammability rating of 94V-0. The Category 6 connector includes unique pair separation towers allowing for quicker and easier terminations. The connector is configured in a 180° configuration such that the punch field is in the back, allowing for rear termination. Termination of all connectors shall be 110-type insulation displacement connectors (IDC). The connector shall provide a ledge directly adjacent to the 110-style termination against which the wires can be directly terminated and cut in one action by the installation craftsman. Connector wiring is universal and will accommodate installation color codes for T568A and T568B wiring schemes. The termination field shall be in the rear for easy access. The modular connector shall fit all other installed telecommunications wallplates, outlets and field-configurable patch panels and patch blocks. Colors and configurations to be specified per schedule on plan.

### **STANDARDS COMPLIANCE**

Category 6 modular connectors must meet or exceed the requirements for channel and component-level performance for TIA/EIA Category 6, cULus Listed, NOM and ACA.

### **PHYSICAL SPECIFICATIONS**

Dimensions: .901"H x .575"W x 1.246"D

Materials: Connector body is high-impact, fire-retardant plastic rated UL 94V-0. Spring wire contacts are high quality copper-based alloy, plated with 50 micro-inches of gold over 100 micro inches of nickel for lowest contact resistance, maximum life.

Must include full selection of TIA/EIA-606 compatible colors, which include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond, and brown.

### **DESIGN SPECIFICATIONS**

- For use in any Category 6 housing to support Category 6 UTP connectivity in surface mount, flush mount, or modular furniture outlets and field configurable panels.
- Can be used in conjunction with other snap-in modules for voice/data and video applications over UTP, coax and fiber.
- Full selection of colors available, which must include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond & brown in order to identify ports for different applications.

### **INSTALLATION NOTES**

- Must be designed for cable termination with a 110 punch down tool.
- Detailed installation instructions must be included in the standard pack.
- IDCs must be arranged to minimize untwisting.

## Category 5E Plenum & Non-plenum Cable

### REFERS TO ITEMS 48 & 49 ON PRICING SHEETS

#### **Minimum specifications:**

Unshielded twisted pair cable tested to 400 MHz and ETL verified to Category 5e.  
All plenum cable must be 4X4 plenum construction.

- **20 dB Minimum ACR @ 100 MHz** – Proven support for Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps and 1.2 Gbps.
- **5 dB Minimum** – Improvement in Near End Crosstalk vs. standard Category 5e NEXT.
- **Meets Return Loss** – Category 5e Standard.
- **.25 ns/meter Maximum Skew** – Tightly controlled propagation delay.
- **Enhanced Performance Parameters** – All electrical characteristics proven to exceed TIA/EIA 568-B Category 5e requirements: Near End Crosstalk, Characteristic Impedance, Insertion Loss, and Delay Skew. Also exceeds TIA/EIA-568-B.2 Category 5e requirements: Power Sum NEXT, and Far End Crosstalk – ELFEXT and PS-ELFEXT.

## Electrical Characteristics

#### STANDARDS:

EXCEEDS TIA/EIA-568-B.2 CAT 5e & ISO/IEC 11801:2002 CAT 5 HORIZONTAL CABLE

CONDUCTOR DCR: 8.9  $\Omega$ /100m (27.1  $\Omega$ /Mft) MAX

DCR UNBALANCE: 3% MAX

MUTUAL CAPACITANCE: 46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE PAIR/GROUND: 66 pF/100m (200 pF/Mft) MAX

CHARACTERISTIC IMPEDANCE: 100  $\pm$  15% (1-400 MHz)

#### INPUT IMPEDANCE:

100  $\pm$  15% (1-100 MHz)

100  $\pm$  22% (>100-200 MHz)

PROPAGATION DELAY: 506 + 36/ $f$  ns/100m MAX

DELTA DELAY (SKEW): 25 ns/100m MAX

NOMINAL VELOCITY OF PROPAGATION (NVP): PLENUM 72%; NON-PLENUM 68%



## **Category 5E Patch Panels**

### **REFERS TO ITEMS 72, 73, 74 & 75 ON PRICING SHEETS**

The Category 5E patch panel shall meet or exceed the requirements for Category 5e described in TIA/EIA-568-B as well as the Class E requirements described in ISO/IEC 11801-B. The panels shall feature both T568A and T568B wiring configurations, white IDC 110-punchdown modules, mounting standoffs for cable management bars, color-coded front window labeling, and a termination standoff for patch panel earthing/grounding. The panels shall have universal T568A and T568B wiring card for terminations. The panels shall be made of 16 gauge steel, and shall have a black painted finish with white silk-screening. The plastic elements shall be fire-retardant with a UL flammability rating of 94V-0. The panel shall be offered in 12-, 24-, 48-port configurations as well as 12-port configuration for wall mount applications. The patch panel shall be configured with six port modules. The 110 termination on the rear of the panel shall follow normal installation color sequence (blue, orange, green, brown) from left to right.

#### **APPLICATION**

Category 5e patch panels must be designed for use on 19" standard racks and cabinets and must allow for standard 110 terminations on the rear of the panel which follows the normal installation color sequence (blue, orange, green, brown) from left to right

#### **FEATURES**

- Universal T568A and T568B wiring cards for 110 style IDC terminations.
- Color-coded front labeling for easy port identification
- Centralized labeling available on 48 port panel.
- Grounding standoff for optional earthing/grounding.

#### **STANDARDS COMPLIANCE**

Meets all applicable standards: UL Listed; meets or exceeds all TIA/EIA-568-B for Category 5e requirements; and meets FCC Part 68.

#### **PHYSICAL SPECIFICATIONS**

Dimensions: 12-, 24-Port - 1.75"H x 19"W x 1.31"D

48 Port - 3.5"H x 19"W x 1.31"D

12-port Patch Block – 10.0"H x 2.3"W x 1.474"D

Capacity: 12-, 24-, 48-port and 12-Port Patch Block

Materials: 16 gauge steel, painted black, PCB and plastic components are rated UL 94V-0

#### **DESIGN SPECIFICATIONS**

- Color-coded front window labeling for easy port identification.
- Centralized labeling (available on 48-port), promotes greater visibility of labels when patch cords are routed into horizontal cable management above and below the patch panel.
- Mounts on 19" standard equipment racks.
- Panel offered in 12-, 24-, 48-port configurations and a 12-Port Patch Block for wall-mount applications.
- Connector modules are grouped in sets of six.

## **Category 5E Modular Connectors**

### **REFERS TO ITEM 50 ON PRICING SHEETS**

The Category 5e connector shall meet or exceed the requirements for Category 5e described in TIA/EIA-568-B as well as the Class E requirements described in ISO/IEC 11801. The modular connector shall be individual snap-in style. The connector shall be 180° configuration such that the punch field is in the back, allowing for rear termination. Rear termination field shall include pointed pair separation towers to promote easier installation. All plastics used in construction of the connector bodies shall be fire retardant with a UL flammability rating of 94V-0. Termination of all connectors shall be 110-type insulation displacement connectors (IDC). The connector shall provide a cutting ledge directly adjacent to the 110-style IDCs against which the wires can be directly terminated and cut in one action. Connector wiring shall be universal and accommodate both T568A and T58B wiring schemes.

### **STANDARDS COMPLIANCE**

The Category 5e modular connector must meet or exceed the Category 5e requirements for channel/component level performance per TIA/EIA-568-B and ISO/IEC 11801. Components certified per cULus and ACA requirements.

### **PHYSICAL SPECIFICATIONS**

Dimensions: .885"H x .635"W x 1.211"D

Materials: Connector body is high-impact, fire-retardant plastic rated UL 94V-0. Spring wire contacts are high quality copper-based alloy, plated with 50 micro-inches of gold over 100 micro-inches of nickel for lowest electrical contact resistance and maximum life.

Must include full selection of available colors, which include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond, and brown.

### **DESIGN SPECIFICATIONS**

- For use in any Category 5e housing to support Category 5e UTP connectivity in surface mount, flush mount, or modular furniture outlets and field configurable panels.
- Can be used in conjunction with other snap-in modules for voice/data and video applications over UTP, coax and fiber.
- Full selection of colors available, which must include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond & brown in order to identify ports for different applications.

### **INSTALLATION NOTES**

- Must be designed for cable termination with a 110 punch down tool.
- Detailed installation instructions must be included in the standard pack.
- IDCs must be arranged to minimize untwisting.

## Category 5e Plenum & Non-plenum Cable

### REFERS TO ITEMS 45 & 46 ON PRICING SHEETS

#### **Minimum specifications:**

Unshielded twisted pair cable tested to 200 MHz and ETL verified to Category 5e.  
All plenum cable must be 4X4 plenum construction.

- **14 dB Minimum ACR @ 100 MHz** – Proven support for Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps.
- **4 dB Minimum** – Improvement in Near End Crosstalk vs. TIA/EIA-568-B Category 5.
- **ETL Verified to Category 5e.**
- **.45 ns/meter Maximum Skew** – Tightly controlled propagation delay.
- **Engineered for Future Applications** – Tested for all parameters specified...for 4 pair UTP in TIA/EIA-568-B.2, including PS-NEXT, Return Loss, ELFEXT and PS-ELFEXT.

## **Category 5e Modular Connectors**

### **REFERS TO ITEM 47 ON PRICING SHEETS**

The Category 5e modular connector shall meet or exceed individual snap-in style, and provide compliance with TIA/EIA-568-B specifications. The connectors shall also be in compliance with all National Electrical Codes; compliant with FCC Part 68; UL listed; and independently UL Certified. In addition to Category 5e compliance, the connector shall have the ability to support high megabit and shared-sheath applications. All plastics used in construction of the connector bodies shall be fire-retardant with a UL flammability rating of 94V-0. Termination of all connectors shall be 110-type IDC with solder-plated phosphor bronze contacts. The connector shall provide a ledge directly adjacent to the 110 style termination against which the wires can be directly terminated and cut in one action by the installer. Connector wiring label shall provide installation color codes for both T568A and T568B wiring schemes. The modular hardware shall fit all other installed telecommunications wallplates, outlets and field configurable patch panels and patch blocks.

### **STANDARDS COMPLIANCE**

The Category 5e connector must meet all applicable standards: UL Listed; complies with all TIA/EIA-568-B requirements; and meets FCC Part 68.

### **PHYSICAL SPECIFICATIONS**

Dimensions: .89"H x .635"W x 1.178"D

Materials: Connector body is high-impact, fire-retardant plastic rated UL 94V-0. Spring wire contacts are high-quality phosphor bronze, plated with 50 micro-inches of gold over 100 microinches of nickel for lowest contact resistance, maximum life. Connector 110-style IDC contacts are solder-plated phosphor bronze.

Full selection of colors must be made available, which include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond, and brown.

### **DESIGN SPECIFICATIONS**

- For use in any Category 5e housing to support Category 5e UTP connectivity in surface mount, flush mount, or modular furniture outlets and field configurable panels.
- Can be used in conjunction with other snap-in modules for voice/data and video applications over UTP, coax and fiber.
- Full selection of colors available, which must include ivory, white, grey, black, orange, blue, red, yellow, green, purple, almond & brown in order to identify ports for different applications.

### **INSTALLATION NOTES**

- Must be designed for cable termination with a 110 punch down tool.
- Detailed installation instructions must be included in the standard pack.
- IDCs must be arranged to minimize untwisting.

\*\*\*\*Pages 10 of 32 thru 15 of 32 refer to items 284 – 286\*\*\*\*

## Fiber Optic Cable Specifications:

Laser Optimized Multimode 50µm 550 Plenum Building Cable- Supports 550 Meter Channel @ 10 Gb/s

1. The cable shall support current and next-generation LAN, SAN, and WAN applications via laser-optimized 50/125-µm optical fibers.
2. The cable shall extend the distance of low-cost 850-nm VCSEL-based electronics, supporting 1100 m at 1 Gb/s and 550 m at 10 Gb/s.
3. The application suite shall include Ethernet from 10 Mb/s to 10 Gb/s, Fiber Channel from 1 Gb/s to 10 Gb/s, and ATM/SONET/SDH from OC-1 to OC-192.
4. All fibers shall be Differential Mode Delay (DMD) tested using a high-resolution test bench that meets or exceeds the FOTP-220 standards and is independently certified by UL®.
5. The riser cable shall be constructed with tight buffer fibers, aramid strength yarn, surrounded by a Plenum rated outer jacket.
6. The cables shall be designed for point-to-point applications as well as mid-span access, and shall provide a high-level of protection for fiber installed in the building environment.
7. The cables shall meet the following specifications:

### Physical Specifications:

Fiber Count	Outer Diameter in.(mm)	Weight lbs/ft (kg/km)	Minimum Bend Radius in.(cm)		Max. Tensile Load lbs.(Newtons)		Maximum Vertical Rise Feet (Meters)
			Loaded	Unloaded	Short Term	Long Term	
6	0.19 (4.7)	14 (21)	3.7 (9.5)	1.9 (4.7)	300 (1335)	90 (400)	1640 (500)
12	0.22 (5.7)	21 (31)	4.5 (11.4)	2.2 (5.7)	300 (1335)	90 (400)	1640 (500)
24	0.55 (13.9)	107 (160)	11.0 (27.8)	5.5 (13.9)	600 (2670)	180 (801)	1640 (500)

### Environmental and Mechanical

	Specification	Test Method
Operating Temperature	-40°to +70°C	FOTP - 3
Installation Temperature	20°to +70°C	N/A
Storage Temperature	-40°to +70°C	N/A
Crush Resistance	44 N/mm	FOTP - 41
Impact Resistance	20 Impacts of 2.94 N.m.	FOTP - 25
Flexing	Meets or exceeds	FOTP - 104
Twist Bend	Meets or exceeds	FOTP - 85

### Cable Identification:

Buffer Tubes and Fibers are identified with standard color coding:

1 - Blue	5 - Slate	9 - Yellow
2 - Orange	6 - White	10 - Violet
3 - Green	7 - Red	11 - Rose
4 - Brown	8 - Black	12 - Aqua

### Optical Specifications

	850 nm,max	1300 nm,max
Cabled Attenuation	3.0 dB/km	1.0 dB/km
Bandwidth by OFL	3500 MHz-km	500 MHz-km
Effective Modal Bandwidth	4700 MHz-km*	500 MHz-km
Differential Mode Delay	See Table below	1 0.88 ps/m

\* Effective modal bandwidth for laser transmitters compliant to TIA/EIA-492-AAACA Annex C.1, such as those in IEEE 802.3

10-Gigabit Ethernet (10GBASE-S), INCITS 364 10-Gigabit Fiber Channel (1200-MX-SN-I), and OIF-VSR4-04 10-Gigabit SONET/SDH (OC-192 Serial Shortwave).

**Table 1 Differential Mode Delay Specifications at 850 nm**

DMD Template for <sup>R</sup> INNER = 0 µm to <sup>R</sup> OUTER = 23 µm	DMD Interval Mask for radial intervals: 7 – 13 µm 9 – 15 µm 11 – 17 µm 13 – 19 µm
0.14 ps/m,max.	0.11 ps/m,max.

Armored Laser Optimized Multimode 50 $\mu$ m Metallic Sheath Supports 550 meters – 10Gb/s

1. The cable supports current and next-generation LAN, SAN, and WAN applications via laser-optimized 50/125- $\mu$ m optical fibers.
2. The cable extends the distance of low-cost 850-nm VCSEL-based electronics, supporting 1100 m at 1 Gb/s and 550 m at 10 Gb/s. The application suite includes Ethernet from 10 Mb/s to 10 Gb/s, Fiber Channel from 1 Gb/s to 10 Gb/s, and ATM/SONET/SDH from OC-1 to OC-192.
3. The fibers shall be Differential Mode Delay (DMD) tested using a high-resolution test bench that meets or exceeds the FOTP-220 standards and is independently certified by UL®.
4. The Loose Tube Metallic cable shall be armored with a corrugated polymer coated steel tape, and constructed with industry standard 3mm buffer tubes, stranded around a central strength member.
5. The armor layer shall provide added crush protection and shall meet the Telcordia requirements for Superior Armored cable.
6. The buffer tubes shall be compatible with standard hardware, cable routing and fan-out kits.
7. The cable core shall be water blocked with dry water-blocking materials, making access and handling of individual tubes easier and craft-friendly.
8. The cable shall be designed for point-to-point applications as well as mid-span access, and provide a high-level of protection for fiber installed in the outside plant environment.
9. The cable shall meet the following specifications:

Fiber Physical Specifications	
Core Diameter	50 ( $\pm$ 2.5) $\mu$ m
Core Non-Circularity	$\leq$ 5%
Cladding Diameter	125( $\pm$ 1) $\mu$ m
Core/Cladding Concentricity Error	$\leq$ 1.5 $\mu$ m
Cladding Non-Circularity	$\leq$ 1.0%
Coated Fiber Diameter (uncoated)	245( $\pm$ 10) $\mu$ m
Coating/Cladding Concentricity Error	$\leq$ 6 $\mu$ m
Colored Fiber Diameter	245( $\pm$ 7) $\mu$ m
Proof Test Levels	0.7 GPa minimum
Dynamic Fatigue Parameter	$\geq$ 18
Macrobending (100 turns on a 75 mm mandrel)	$\leq$ 0.5dB @ 850 nm and 1300 nm
Operating Temperature	- 60 to 85°C
Fiber Optical Specifications	
Numerical Aperture	0.200 $\pm$ 0.015
Effective Group Index of Refraction @ 850 nm	1.482
Effective Group Index of Refraction @ 1300 nm	1.478
Point Discontinuities @ 850 nm or 1300 nm	$\leq$ 0.1 dB
Minimum Bandwidth	Overfilled: 3500 MHz-km @ 850 nm Overfilled: 500 MHz-km @ 1300 nm Laser: 4700 MHz-km @ 850 nm Laser: 500 MHz-km @ 1300 nm
Zero Dispersion Wavelength	minimum 1297 nm maximum 1316 nm
Zero Dispersion Slope	$\leq$ 0.101 ps/(nm <sup>2</sup> km)

## Physical Specifications:

Fiber Count	Subunits	Outer Diameter in. (mm)	Weight lbs/kft kg/km	Minimum Bend Radius		Max. Tensile Load lbs. (Newtons)		Max. Vertical Rise Feet (Meters)
				Loaded	Unloaded	Short Term	Long Term	
4 - 48	5	0.46 (11.7)	63 (94)	9.2 (23.4)	4.6 (11.7)	607 (2700)	180 (800)	2856 (871)
72	6	0.50 (12.7)	72 (107)	10.0 (25.4)	5.0 (12.7)	607 (2700)	180 (800)	2509 (765)
96	8	0.58 (14.7)	95 (141)	11.5 (29.4)	5.8 (14.7)	607 (2700)	180 (800)	1904 (580)
144	12	0.74 (18.9)	146 (217)	14.8 (37.8)	7.4 (18.9)	607 (2700)	180 (800)	1237 (377)
288	24	0.86 (21.9)	211 (315)	17.2 (43.8)	8.6 (21.9)	607 (2700)	180 (800)	852 (260)

## Environmental and Mechanical:

	Specification	Test Method
Operating Temperature	-40 <sup>o</sup> to +70 <sup>o</sup> C	FOTP -3
Installation Temperature	-20 <sup>o</sup> to +70 <sup>o</sup> C	N/A
Storage Temperature	-40 <sup>o</sup> to +70 <sup>o</sup> C	N/A
Crush Resistance	44 N/mm	FOTP - 41
Impact Resistance	Meets or exceeds	FOTP - 25
Flexing	Meets or exceeds	FOTP - 104
Twist Bend	Meets or exceeds	FOTP - 85

## Cable Identification:

Buffer Tubes and Fibers are identified with standard color coding:

1 - Blue	5 - Slate	9 - Yellow
2 - Orange	6 - White	10 - Violet
3 - Green	7 - Red	11 - Rose
4 - Brown	8 - Black	12 - Aqua

Buffer tubes 13 through 24 repeat the color sequence with tracer stripe: e.g. fiber 13 is blue with tracer strip

## Optical Specifications

	850 nm,max	1300 nm,max
Cabled Attenuation	3.0 dB/km	1.0 dB/km
Bandwidth by OFL	3500 MHz-km	500 MHz-km
Effective Modal Bandwidth	4700 MHz-km*	500 MHz-km
Differential Mode Delay	See Table 1 below	0.88 ps/m

\* Effective modal bandwidth for laser transmitters compliant to TIA/EIA-492-AAAC-A Annex C.1, such as those in IEEE 802.3 10-Gigabit Ethernet (10GBASE-S), INCITS 364 10-Gigabit Fiber Channel (1200-MX-SN-I), and OIF-VSR4-04 10-Gigabit SONET/SDH (OC-192 Serial Shortwave).

Table 1 - Differential Mode Delay Specifications at 850 nm

DMD Template for $R_{inner} = 0 \mu m$ to $R_{outer} = 23 \mu m$	DMD Interval Mask for radial intervals: 7 - 13 $\mu m$ 9 - 15 $\mu m$ 11 - 17 $\mu m$ 13 - 19 $\mu m$
0.14 ps/m,max.	0.11 ps/m,max.

**Interlocking Armored Fiber-Optic Riser-Rated Premises Cable (OFCR) approved**

Plenum rated

1. The plenum rated interlocking armored cable shall be used where additional protection and security is deemed necessary such as: building backbone, zone distribution, raised floor, data centers and storage area networks (SANs)
2. The interlocking armor shall support single mode and multimode riser rated cable. Composite riser rated cables, with any combination of sm and mm fibers shall also be supported.
3. The manufacturing process shall include application of a steel or aluminum interlocking armor spirally around riser-rated premises distribution cable and then shall be over-jacketed with a plenum rated sheath
4. The plenum rated sheath shall be color-coded to the fiber type and be printed with all relevant information on the cable contained within.
5. The plenum rated sheath shall allow for easier handling and pulling.
6. The interlocking armor and fiber cable shall be from a single manufacturer.
7. Available fiber counts shall range from 2 to 72, with others available at request.

**Environmental and Mechanical:**

	Specification	Test Method
Operating Temperature	-20°C to +70°C	FOTP - 3
Installation Temperature	0°C to +70°C	N/A
Storage Temperature	-40°C to +70°C	N/A
Crush Resistance	85 N/mm	FOTP - 41
Impact Resistance	35 N-m	FOTP - 25
Flexing	Meets or exceeds	FOTP - 104
Cable Bend	Meets or exceeds	FOTP - 85

Physical Specifications

**Aluminum Armored Plenum Cable:**

Fiber Count	Outer Diameter in. (mm)		Weight lbs/kft (kg/km)		Minimum Bend Radius in. (cm)				Max. Tensile Load lbs. (Newtons)				Maximum Vertical Rise Feet (Meters)	
					Loaded		Unloaded		Short Term		Long Term			
2	0.56	14.1	100	(148)	11.1	(28.2)	7.8	(19.7)	225	(1,001)	68	(300)	677	(206)
4	0.56	14.1	103	(154)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	872	(266)
6	0.56	14.1	106	(158)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	849	(259)
8	0.56	14.1	108	(160)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	836	(255)
12	0.56	14.1	112	(166)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	806	(246)
18	0.76	19.2	197	(294)	15.1	(38.4)	10.6	(26.8)	300	(1,335)	90	(400)	456	(139)
24	0.81	20.4	226	(336)	16.1	(40.9)	11.3	(28.6)	300	(1,335)	90	(400)	398	(121)
36	0.86	21.7	282	(420)	17.1	(43.4)	12.0	(30.4)	300	(1,335)	90	(400)	319	(97)
48	0.91	23.0	302	(449)	18.1	(46.0)	12.7	(32.2)	300	(1,335)	90	(400)	298	(91)
60	1.01	25.5	352	(524)	20.1	(51.1)	14.1	(35.7)	300	(1,335)	90	(400)	255	(78)
72	1.11	28.1	418	(622)	22.1	(56.1)	15.5	(39.3)	300	(1,335)	90	(400)	215	(66)
96	1.26	31.9	569	(847)	25.1	(63.8)	17.6	(44.6)	300	(1,335)	90	(400)	158	(48)



## Steel Armored Plenum Cable:

Fiber Count	Outer Diameter in. (mm)		Weight lbs/kft (kg/km)		Minimum Bend Radius in. (cm)				Max. Tensile Load lbs. (Newtons)				Maximum Vertical Rise Feet (Meters)	
					Loaded		Unloaded		Short Term		Long Term			
2	0.56	14.1	157	(233)	11.1	(28.2)	7.8	(19.7)	225	(1,001)	68	(300)	431	(131)
4	0.56	14.1	160	(238)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	562	(171)
6	0.56	14.1	163	(243)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	552	(168)
8	0.56	14.1	165	(245)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	547	(167)
12	0.56	14.1	169	(251)	11.1	(28.2)	7.8	(19.7)	300	(1,335)	90	(400)	534	(163)
18	0.76	19.2	285	(423)	15.1	(38.4)	10.6	(26.8)	300	(1,335)	90	(400)	316	(96)
24	0.81	20.4	321	(477)	16.1	(40.9)	11.3	(28.6)	300	(1,335)	90	(400)	281	(86)
36	0.86	21.7	384	(572)	17.1	(43.4)	12.0	(30.4)	300	(1,335)	90	(400)	234	(71)
48	0.91	23.0	412	(613)	18.1	(46.0)	12.7	(32.2)	300	(1,335)	90	(400)	219	(67)
60	1.01	25.5	476	(709)	20.1	(51.1)	14.1	(35.7)	300	(1,335)	90	(400)	189	(58)
72	1.11	28.1	557	(829)	22.1	(56.1)	15.5	(39.3)	300	(1,335)	90	(400)	162	(49)
96	1.26	31.9	730	(1,087)	25.1	(63.8)	17.6	(44.6)	300	(1,335)	90	(400)	123	(38)

**Single mode fiber optic Premises Cable – Zero Water Peak – Plenum  
Interlocking Armored Fiber-Optic Plenum-Rated Premises Cable (OFCR) approved**

- The cable shall be available in plenum type.
- The premises cable shall use a standard colored tight buffered construction.
- The higher fiber count cables shall utilize a sub-unitized design with color-coded sub units for easy identification.
- The cable shall deliver a cost-effective upgrade path by expanding the available wavelengths by 50% and allowing up to 18 channels of CWDM (Coarse Wave Division Multiplexing) on a single fiber and up to 400 channels of DWDM (Dense Wave Division Multiplexing) on a single cable.
- The cable shall operate over the entire wavelength range from 1260 nm to 1625 nm, removing the water peak (high attenuation) in the E-band, adding more than 50% in operational wavelength range over conventional single mode fiber.

**Physical Specifications:**

Core Diameter:	8.3 $\mu$ m nominal
Cladding Diameter:	125.0 ( $\pm$ 0.7) $\mu$ m
Core/Clad Offset:	< _ 0.5 $\mu$ m
Cladding Non-Circularity:	< _ 1%
Coated Fiber Diameter:	245 ( $\pm$ 10) $\mu$ m
Cladding/Coating Offset:	< _ 12 $\mu$ m
Colored Fiber Diameter:	254 ( $\pm$ 7) $\mu$ m
Proof Test:	0.7 GPa
Fiber Curl:	> 4 m
Dynamic Fatigue Parameter:	_ 18 >
Macrobend (100 turns, 50 mm mandrel):	0.10 dB @ 1310 nm and 1550 nm
Macrobend (1 turn on a 32 mm mandrel):	0.50 dB @ 1310 nm and @ 1550 nm

**Optical Specifications**

Mode Field Diameter:	9.2 ( $\pm$ 0.3) $\mu$ m @ 1310 nm 10.4 (nominal) @ 1550 nm
Group Index of Refraction:	1.466 @ 1310 nm and 1383 ( $\pm$ 3) nm, 1.467 @ 1550 nm
Attenuation of Tight Buffered Fibers:	0.7 dB/km @ 1310 nm 0.7 dB/km @ 1385 nm 0.7 dB/km @ 1550 nm
Maximum Dispersion:	3.5 ps/nm-km @ 1285 to 1330 nm, 18 ps/nm-km @ 1550 nm
Zero-Dispersion Wavelength:	1300 - 1322 nm
Zero-Dispersion Slope:	0.092 ps/(nm) <sup>2</sup> km
Polarization Mode Dispersion LDV:	0.08 ps/(km) <sup>2</sup>

## Physical Characteristics - RISER Rated:

Fiber Count	Flame Rating	Outer Diameter		Weight		Minimum Bend				Max. Tensile Load		Maximum			
		in.	mm	lbs/kft	kg/km	Loaded	Unloaded	Short Term	Long Term	Vertical					
						in.	cm	in.	cm	lbs.	N	lbs.	N	ft	m.
2	Riser	0.16	4.1	8.6	12.9	3.2	8.1	1.6	4.1	225	1001	68	300	1640	500
4	Riser	0.19	4.8	13.1	19	3.8	9.5	2.0	5.1	300	1335	90	400	1640	500
6	Riser	0.20	5.1	15.2	23	4.1	10.3	2.0	5.1	300	1335	90	400	1640	500
8	Riser	0.22	5.5	17.2	26	4.3	11.0	2.2	5.5	300	1335	90	400	1640	500
12	Riser	0.23	5.8	18.8	28	4.6	11.7	2.3	5.8	300	1335	90	400	1640	500
18	Riser	0.48	12.3	99.8	148	9.7	24.6	4.8	12.3	600	2670	180	801	1640	500
24	Riser	0.56	14.1	106.7	159	11.1	28.2	5.6	14.1	600	2670	180	801	1640	500
36	Riser	0.56	14.2	118.7	177	11.2	28.4	5.6	14.2	800	3560	240	1068	1640	500
48	Riser	0.62	15.7	126.6	188	12.3	31.3	6.2	15.7	800	3560	240	1068	1640	500
60	Riser	0.70	17.7	170.8	254	13.9	35.3	7.0	17.7	1000	4450	300	1335	1640	500
72	Riser	0.77	19.6	211.2	314	15.4	39.1	7.7	19.6	1000	4450	300	1335	1421	433
96	Riser	0.92	23.4	308.6	459	18.4	46.7	9.2	23.4	1000	4450	300	1335	972	296
144	Riser	1.00	25.3	309.8	461	19.9	50.6	10.0	25.3	1000	4450	300	1335	968	295

## Physical Characteristics - PLENUM Rated

2	Plenum	0.15	3.9	8.8	13.1	3.1	7.8	1.5	3.9	225	1001	68	300	1640	500
4	Plenum	0.17	4.4	12.2	18	3.4	8.7	1.7	4.4	300	1335	90	400	1640	500
6	Plenum	0.19	4.8	15.1	22	3.8	9.7	1.9	4.8	300	1335	90	400	1640	500
8	Plenum	0.20	5.1	16.8	25	4.0	10.2	2.0	5.1	300	1335	90	400	1640	500
12	Plenum	0.22	5.7	20.8	31	4.5	11.4	2.2	5.7	300	1335	90	400	1640	500
18	Plenum	0.45	11.4	82.5	123	9.0	22.8	4.5	11.4	600	2670	180	801	1640	500
24	Plenum	0.52	13.1	108.1	161	10.3	26.3	5.2	13.1	600	2670	180	801	1640	500
36	Plenum	0.54	13.7	128.4	191	10.8	27.4	5.4	13.7	800	3560	240	1068	1640	500
48	Plenum	0.59	15.1	137.7	205	11.9	30.2	5.9	15.1	800	3560	240	1068	1640	500
60	Plenum	0.68	17.2	189.7	282	13.6	34.4	6.8	17.2	1000	4450	300	1335	1581	482
72	Plenum	0.75	19.1	237.1	353	15.1	38.2	7.5	19.1	1000	4450	300	1335	1265	386
96	Plenum	0.90	23.0	360.8	537	18.1	45.9	9.0	23.0	1000	4450	300	1335	831	253
144	Plenum	0.95	24.1	330.8	492	19.0	48.2	9.5	24.1	1000	4450	300	1335	907	276

\*\*\*\*Page 16 of 32 refer to items 287 – 288\*\*\*\*

## COPPER CABLE SPECIFICATIONS:

**Nominal Outer Jacket OD** 0.232 in (5.89 mm) 0.224 in (5.69 mm) 0.231 in (5.87 mm)  
**Nominal Outer Jacket Thickness** 0.022 in (0.56 mm) 0.020 in (0.51 mm) 0.020 in (0.51 mm)  
**Maximum Pulling Tension** 25 lbs (11.3 kg) 25 lbs (11.3 kg) 25 lbs (11.3 kg)  
**Nominal Cable Weight** 25.6 lbs/kft 29.1 lbs/1,000 ft 25.0 lbs/kft (38.2 kg/km) (13.2 kg/304.8 m) (39.3 kg/km)  
**Operating Temperature** -4°F to 140°F -4°F to 140°F -4°F to 140°F (-20°C to 60°C) (-20°C to 60°C) (-20°C to 60°C)  
**Installation Temperature** 32°F to 140°F 32°F to 140°F 32°F to 140°F (0°C to 60°C) (0°C to 60°C) (0°C to 60°C)  
**Conductor Diameter** 23 AWG 23 AWG 23 AWG  
**Jacket Material** PVC Low Smoke PVC Low Smoke Zero Halogen  
**ETL Type** CMR CMP  
**IEC Verified** IEC 60332-3  
**Nominal Velocity of Propagation** 69% 71% 69%  
**Maximum DC Resistance** 7.61 Ohms/100 m 7.61 Ohms/100 m 7.61 Ohms/100 m  
**Maximum DC Resistance Unbalanced** 3% 3% 3%  
**Maximum Mutual** 5.6 nF/100 m 5.6 nF/100 m 5.6 nF/100 m  
**Capacitance at 1 KHz**  
**Minimum Dielectric Strength** 1500 VAC or 2500 VDC 1500 VAC or 2500 VDC 1500 VAC or 2500 VDC  
**Voltage Safety Rating** 300 Volts per 300 Volts per 300 Volts per NEC 800.179 NEC 800.179 NEC 800.179

### Non-plenum

Cable meet or exceed Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and ANSI/TIA-568-C.2.

The cable must be ETL listed as Category 6. The cable must feature a thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size.

### Plenum

Cable must meet or exceed Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and ANSI/TIA-568-C.2. The cable must be ETL listed as Category 6. The cable must feature a thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size. The 4-pair must be composed of bare solid copper conductors insulated with Fluorinated-Ethylene-Propylene (FEP). The core of twisted pairs is jacketed with a low smoke PVC. It conforms to the low flame, low smoke requirements of the NEC.

### LSZH

Cable must meet or exceed Category 6/Class E attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and ANSI/TIA-568-C.2.

The cable must be ETL listed as Category 6. The cable must feature a thin and easy-to-remove bisector tape that delivers the performance benefits of more traditional fluted center members without the associated stiffness and size. 3071E cable is composed of solid copper conductors insulated with non-halogen high-density polyethylene and jacketed with a low smoke zero halogen compound.

\*\*\*\*Page 17 of 32 refer to items 289 – 290\*\*\*\*

### Information Outlet Specifications:

<b>Dimensions</b>	
Depth	30.48 mm   1.20 in
Height	20.32 mm   0.80 in
Width	20.32 mm   0.80 in
<b>Electrical Specifications</b>	
ANSI/TIA Category	6
Contact Resistance Variation, maximum	20 mOhm
Contact Resistance, maximum	100 mOhm
Current Rating	1.5 A @ 20 °C 1.5 A @ 68 °F
Dielectric Withstand Voltage, RMS, conductive surface	1500 Vac @ 60 Hz
Dielectric Withstand Voltage, RMS, contact-to-contact	1000 Vac @ 60 Hz
Insulation Resistance, minimum	500 MOhm
<b>Environmental Specifications</b>	
Flammability Rating	UL 94 V-0
Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Relative Humidity	Up to 95%, non-condensing
Safety Standard	cUL   UL
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
<b>General Specifications</b>	
Cable Type	U/UTP (unshielded)
Color	Blue
Product Type	Outlet
Package, quantity	1
<b>Mechanical Specifications</b>	
Conductor Gauge, solid	22 AWG   24 AWG   26 AWG
Conductor Gauge, stranded	22 AWG   24 AWG
Conductor Type	Solid   Stranded (7 strands)
Material Type	Copper alloy   High-impact, flame retardant, thermoplastic
Outlet/Module Contact Plating	Gold over nickel
Plug Insertion Life Test Plug	IEC 60603-7 compliant plug
Plug Insertion Life, minimum	750 times
Plug Retention Force, minimum	30 lbf   133 N
Rear Termination Contact Plating	Gold over nickel
Rear Termination Type	IDC
Wiring	T568A   T568B

<b>Agency</b>	<b>Classification</b>
RoHS 2002/95/EC	Compliant
ISO 9001:2000	Compliant

\*\*\*\*Page 17 of 32 refer to items 296 – 297\*\*\*\*

## Category 6 U/UTP Copper Patch Panel 48 port with termination manager

<b>Dimensions</b>	
Depth	206.50 mm   8.13 in
Diameter Over Dielectric, maximum	1.168 mm   0.046 in
Diameter Over Dielectric, minimum	0.762 mm   0.030 in
Height	134.37 mm   5.29 in
Width	482.60 mm   19.00 in
<b>Electrical Specifications</b>	
ANSI/TIA Category	6
Current Rating	1.5 A @ 20 °C 1.5 A @ 68 °F
Dielectric Withstand Voltage, RMS, conductive surface	1500 Vac @ 60 Hz
Dielectric Withstand Voltage, RMS, contact-to-contact	1000 Vac @ 60 Hz
Insulation Resistance, minimum	500 MOhm
<b>Environmental Specifications</b>	
Flammability Rating	UL 94 V-0
Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F)
Relative Humidity	Up to 95%, non-condensing
Safety Standard	cUL   UL
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
<b>General Specifications</b>	
Cable Type	U/UTP (unshielded)
Modules, quantity	8
Product Type	Panel
Total Ports, quantity	48
Color	Black
Package, quantity	1
Rack Type	EIA 19 in
Rack Units	2
<b>Mechanical Specifications</b>	
Conductor Gauge, solid	22 AWG   24 AWG   26 AWG
Conductor Gauge, stranded	22 AWG   24 AWG
Conductor Type	Solid   Stranded (7 strands)
Material Type	High-impact, flame retardant, thermoplastic   Powder-coated steel
Outlet/Module Contact Plating	Gold over nickel
Plug Insertion Life Test Plug	IEC 60603-7 compliant plug
Plug Insertion Life, minimum	750 times
Plug Retention Force, minimum	30 lbf   133 N
Rear Termination Contact Plating	Gold over nickel
Rear Termination Type	IDC
Wiring	T568A   T568B

### **Regulatory Compliance/Certifications**

Agency	Classification
RoHS 2002/95/EC	Compliant
ISO 9001:2000	Compliant

ITEM NUM.	BID Quantity	Unit	Description	See other page ***	Unit Price	Extension Price
1	50	EA	PLASTIC CABLE TIES; 7 15/16" IN LENGTH, 100PK 3-M PART # 3-M06226 OR EQUAL			\$0.00
2	200	EA	VELCRO TYRAP WIRE TIES; 8" IN LENGTH; HELLERMAN TYTON PART # GT50X80P2 OR EQUAL			\$0.00
3	500	EA	CABLE SUPPORT J-HOOK; ERICO PART # CAT32 OR EQUAL			\$0.00
4	200	EA	ELECTRICAL TAPE; 3-M SCOTCH SUPER 88 PART # 88-SUPER-3/4" X 66FT OR EQUAL			\$0.00
5	50	EA	3M MOLDABLE PUTTY STIX PART # 3M-MPS-2+ OR EQUAL			\$0.00
6	500	EA	CABLE RETAINER CLIP; ERICO PART # CATCR50 OR EQUAL			\$0.00
7	500	EA	SINGLE GANG LOW VOLTAGE MOUNTING BRACKETS; ARLINGTON PART # LV-1 OR EQUAL			\$0.00
8	30	EA	3/4"W X 25YDS LONG BLACK VELCRO IN A ROLL VELCRO PART# 189645 OR EQUAL			\$0.00
9	10	EA	3M WIRE MARKER DISPENSER 0 THRU 9 ON A ROLL 3-M PART # STD-0-9 (FILLED) OR EQUAL			\$0.00
10	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 0 PART# SDR-0 OR EQUAL			\$0.00
11	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 1 PART# SDR-1 OR EQUAL			\$0.00
12	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 2 PART# SDR-2 OR EQUAL			\$0.00
13	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 3 PART# SDR-3 OR EQUAL			\$0.00
14	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 4 PART# SDR-4 OR EQUAL			\$0.00
15	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 5 PART# SDR-5 OR EQUAL			\$0.00
16	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 6 PART# SDR-6 OR EQUAL			\$0.00
17	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 7 PART# SDR-7 OR EQUAL			\$0.00
18	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 8 PART# SDR-8 OR EQUAL			\$0.00
19	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 9 PART# SDR-9 OR EQUAL			\$0.00
20	100	EA	ADJUSTABLE CABLE SUPPORT; ERICO PART#CAT425 OR EQUAL			\$0.00
21	20	EA	PHILLIPS HEAD 3/4" LONG 10-32 RACK SCREWS W/WASHERS 100PK MIDDLE ATLANTIC PRODUCTS PART # HP OR EQUAL			\$0.00
22	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS GREAT LAKES PART# 1984-VCM OR EQUAL MOUNTING HARDWARE INCLUDED			\$0.00
23	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS CHATSWORTH PART# 12096-703 OR EQUAL MOUNTING HARDWARE INCLUDED			\$0.00
24	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS AFCO SYSTEMS PART# ASTCTRG84 OR EQUAL MOUNTING HARWARE INCLUDED			\$0.00
25	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS SOUTHWEST PART# SWE2729BLK OR EQUAL MOUNTING HARDWARE INCLUDED			\$0.00
26	40	EA	DISTRIBUTION RACKS; ALUMINUM BASE COLOR OF BLACK MUST BE APPROXIMATELY 15" IN DEPTH; APPROXIMATELY 20" IN WIDTH; & 84" HEIGHT GREAT LAKES PART# GLRR-1984BA OR EQUAL			\$0.00
27	40	EA	DISTRIBUTION RACKS; ALUMINUM BASE COLOR OF BLACK MUST BE APPROXIMATELY 15" IN DEPTH; APPROXIMATELY 20" IN WIDTH; & 84" HEIGHT. CHATSWORTH PART# 46353-703 OR EQUAL			\$0.00
28	10	EA	48" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL48SR OR EQUAL			\$0.00
29	10	EA	36" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL36SR OR EQUAL			\$0.00

30	10	EA	24" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL24SR OR EQUAL			\$0.00
31	10	EA	84" NETWORKING CABINET; CABINET WILL INCLUDE THE FOLLOWING; CASTERS, LEVELERS, GROUND LUG, TWO PAIR SQUARE HOLE RAILS, M6 HARDWARE, BOTTOM GLAND, TOP GLAND, 10IN FAN TOP, PERFORATED FRONT DOOR, PERFORATED REAR DOOR, TWO SOLID SIDE PANELS, TWO 9411-1602 POWER STRIPS INTERNAL 8729-PD-3 FRONT, 8429-PR-3-0001 SPOTWELDED REAR TWO 8436-01-SP-3 SIDES. PART# XDP84-3-1S0046 OR EQUAL			\$0.00
32	10	EA	72" NETWORKING CABINET; CABINET WILL INCLUDE THE FOLLOWING; CASTERS, LEVELERS, GROUND LUG, TWO PAIR SQUARE HOLE RAILS, M6 HARDWARE, BOTTOM GLAND, TOP GLAND, 10IN FAN TOP, PERFORATED FRONT DOOR, PERFORATED REAR DOOR, TWO SOLID SIDE PANELS, TWO 9411-1602 POWER STRIPS INTERNAL 8729-PD-3 FRONT, 8429-PR-3-0001 SPOTWELDED REAR TWO 8436-01-SP-3 SIDES. PART# XDP72-3-1S0012 OR EQUAL			\$0.00
33	10	EA	84" NETWORKING CABINET; BASE UNIT WITH LOUVERED TOP; PLEXIGLAS FRONT DOOR W/LOCK; UPPER HALF LOUVERED STEEL REAR DOOR W/LOCK; SOLID REMOVABLE SIDE PANELS; TWO PAIR 19" MOUNTING RAILS W/BRACKETS & MOUNTING SCREWS; COLOR BLACK OR GREY; 16 POSITION POWER STRIP W / CIRCUIT BREAKER & 12' CORD; CASTERS; 84"H X 29" W X 36" D; GREAT LAKES PART # 840E-2936WVCC OR EQUAL			\$0.00
34	10	EA	72" NETWORKING CABINET; BASE UNIT WITH LOUVERED TOP; PLEXIGLAS FRONT DOOR W/LOCK; UPPER HALF LOUVERED STEEL REAR DOOR W/LOCK; PAIR OF SOLID REMOVABLE SIDE PANELS; TWO PAIR 19" MOUNTING RAILS W/BRACKETS & MOUNTING SCREWS; COLOR BLACK OR GREY; 16 POSITION POWER STRIP W / CIRCUIT BREAKER & 12' CORD; CASTERS; 72"H X 29" W X 36" D; GREAT LAKES PART # 720E-2936WVCC OR EQUAL			\$0.00
35	5	EA	48" NETWORKING CABINET; BASE UNIT WITH LOUVERED TOP; PLEXIGLAS FRONT DOOR W/LOCK; UPPER HALF LOUVERED STEEL REAR DOOR W/LOCK; PAIR OF SOLID REMOVABLE SIDE PANELS; TWO PAIR 19" MOUNTING RAILS W/BRACKETS & MOUNTING SCREWS; COLOR BLACK OR GREY; 6 POSITION POWER STRIP W / CIRCUIT BREAKER & 12' CORD; CASTERS; 48"H X 24" W X 32" D; GREAT LAKES PART # 480E-2432WVCC OR EQUAL			\$0.00
36	10	EA	STATIONARY SHELVES FOR 19" MOUNTING IN NETWORKING CABINETS; GREAT LAKES PART # 7206-FM OR EQUAL			\$0.00
37	20	EA	FAN ASSEMBLY W/FAN GUARDS & THREE 75 CFM FANS FOR NETWORKING CABINETS; GREAT LAKES PART # TPE-24F or TPE-29F OR EQUAL			\$0.00
38	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 3/4" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 043-LD00 OR EQUAL			\$0.00
39	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 1 1/2" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 042-LD00 OR EQUAL			\$0.00
40	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 2 1/2" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 045-LD00 OR EQUAL			\$0.00
41	1000	FT	RACEWAY MOLDING; TWO-PIECE; NON-METALLIC; 4" WIDTH X 2" DEPTH; DEKDUCT PART # 046-4020DWP OR EQUAL			\$0.00
42	20,000	FT	25 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n 18-475-36 or equal			\$0.00
43	20,000	FT	50 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n 18-579-36 or equal			\$0.00
44	20,000	FT	100 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n: 18-799-36 or equal			\$0.00

45	100,000	FT	CAT. 5e MIN COMPLIANT PVC CABLE; NON-PLENUM; WHITE IN COLOR; 1,000 FT. PER REEL IN A BOX; MOHAWK PART # M57554 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED			\$0.00
46	200,000	FT	CAT. 5e MIN COMPLIANT CABLE; PLENUM; WHITE IN COLOR; 1,000 FT. PER REEL IN A BOX; MOHAWK PART # M57547 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
47	3000	EA	QUICK PORT 8P8C MODULAR RJ45 JACKS FOR CAT5e MIN COMPLIANT; WHITE IN COLOR; LEVITON PART # 5G108-RW5 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
48	200,000	FT	CAT. 5E ENHANCED CABLE; NON-PLENUM RISER RATED; REEL IN A BOX ONLY; 1000 FT. PER BOX; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET; ELECTRICAL CHARACTERISTICS / SPECIFICATIONS SHEET MUST BE SUPPLIED. MEGALAN 400 MOHAWK PART# M56167 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
49	300,000	FT	CAT. 5E ENHANCED CABLE; PLENUM; REEL IN A BOX ONLY; 1000 FT. PER BOX; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET; ELECTRICAL CHARACTERISTICS / SPECIFICATIONS SHEET MUST BE SUPPLIED. MEGALAN 400 MOHAWK PART# M56168 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
50	3,000	EA	LEVITON QUICKPORT 8P8C MODULAR RJ45 JACKS FOR CAT5E ENHANCED; ORANGE IN COLOR; LEVITON PART # 5G110-RO5 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
51	200	EA	CAT 5E ENHANCED 1FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 553-130-001 OR EQUAL			\$0.00
52	200	EA	CAT 5E ENHANCED 3FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-003 OR EQUAL			\$0.00
53	200	EA	CAT 5E ENHANCED 5FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-005 OR EQUAL			\$0.00
54	200	EA	CAT 5E ENHANCED 7FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-007 OR EQUAL			\$0.00
55	200	EA	CAT 5E ENHANCED 10FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-010 OR EQUAL			\$0.00
56	200	EA	CAT 5E ENHANCED 14FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-014 OR EQUAL			\$0.00
57	200	EA	CAT 5E ENHANCED 25FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-025 OR EQUAL			\$0.00
58	100	EA	CAT 5E ENHANCED 50FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-050 OR EQUAL			\$0.00
59	500	EA	CAT 5E ENHANCED 350MHZ PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 1 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
60	500	EA	CAT 5E ENHANCED 350MHZ PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 18 INCHES IN LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
61	2000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 3 FOOT LENGTH; LEVITON PART# 5G460-03* OR EQUAL *- COLOR			\$0.00
62	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 5 FOOT LENGTH; LEVITON PART# 5G460-05* OR EQUAL *- COLOR			\$0.00
63	2000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 7 FOOT LENGTH; LEVITON PART# 5G460-07* OR EQUAL *- COLOR			\$0.00
64	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 10 FOOT LENGTH; LEVITON PART# 5G460-10* OR EQUAL *- COLOR			\$0.00
65	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 15 FOOT LENGTH; LEVITON PART# 5G460-15* OR EQUAL *- COLOR			\$0.00



66	500	EA	CAT. 5E ENHANCED 350MHZ PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 25 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
67	100	EA	CAT 5E ENHANCED 350MHZ PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 50 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
68	100	EA	CAT. 5E ENHANCED 350MHZ PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 100 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
69	50	EA	LEVITON QUICKPORT HIGH DENSITY 48-PORT PATCH PANEL W/CABLE MANAGEMENT BAR LEVITON PART# 49255-H48 OR EQUAL			\$0.00
70	50	EA	LEVITON QUICKPORT HIGH DENSITY 24-PORT PATCH PANEL W/CABLE MANAGEMENT BAR LEVITON PART# 49255-H24 OR EQUAL			\$0.00
71	50	EA	LEVITON QUICKPORT HIGH DENSITY 12-PORT PATCH PANEL LEVITON PART#49255-H89 OR EQUAL			\$0.00
72	100	EA	LEVITON 48-PORT 8P8C RJ45 CAT.5E RACKMOUNT PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART# 5G596-U48 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
73	100	EA	LEVITON 24-PORT 8P8C RJ45 CAT.5E RACKMOUNT PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U24 OR EQUAL; *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
74	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT.5E RACKMOUNT PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U12 OR EQUAL; *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
75	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT5E WALL MT. PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U89 OR EQUAL; *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
76	100	EA	SIEMON 48-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-48 OR EQUAL			\$0.00
77	50	EA	SIEMON 24-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-24 OR EQUAL			\$0.00
78	20	EA	SIEMON 16-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-16 OR EQUAL			\$0.00
79	20	EA	SIEMON 12-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-89D-12 OR EQUAL			\$0.00
80	200	EA	SIEMON RACK MT. 1U WIRE MANAGER PART# S110-RWM-01 OR EQUAL			\$0.00
81	20	EA	SIEMON WIRE MANAGER; STANDARD INTERBAY CORD MANAGER; SIEMON WM-144-5 OR EQUAL			\$0.00
82	20	EA	2-POSITION HINGED FIXED BRACKETS FOR WALL; DATATEL PART # HPM-2 OR EQUAL			\$0.00
83	100	EA	WIRE MANAGER; STANDARD INTERBAY CORD MANAGER; DATATEL PART # HCM-1D OR EQUAL			\$0.00
84	200,000	FT	CAT 6 ENHANCED CABLE; NON-PLENUM; REEL IN A BOX ONLY; 1,000 FT. PER BOX; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET; ELECTRICAL CHARACTERISTICS / SPECIFICATIONS SHEET MUST BE SUPPLIED. CAT 6 ADVANCENET MOHAWK PART# M57202 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
85	300,000	FT	CAT 6 ENHANCED CABLE; PLENUM; REEL IN A BOX ONLY; 1,000 FT. PER BOX; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET; ELECTRICAL CHARACTERISTICS / SPECIFICATIONS SHEET MUST BE SUPPLIED. CAT 6 ADVANCENET MOHAWK PART# M57193 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
86	5000	EA	QUICKPORT CAT6 EXTREME 8P8C RJ45 SNAP-IN CONNECTOR; BLUE IN COLOR; LEVITON PART # 61110-RL6 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00

87	100	EA	CAT 6 EXTREME 1FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-001 OR EQUAL			\$0.00
88	200	EA	CAT 6 EXTREME 3FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-003 OR EQUAL			\$0.00
89	100	EA	CAT 6 EXTREME 5FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-005 OR EQUAL			\$0.00
90	200	EA	CAT 6 EXTREME 7FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-007 OR EQUAL			\$0.00
91	200	EA	CAT 6 EXTREME 10FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-010 OR EQUAL			\$0.00
92	200	EA	CAT 6 EXTREME 15FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-015 OR EQUAL			\$0.00
93	100	EA	CAT 6 EXTREME 25FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-025 OR EQUAL			\$0.00
94	50	EA	CAT 6 EXTREME 50FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-050 OR EQUAL			\$0.00
95	200	EA	CAT. 6 EXTREME 650MHZ PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 18 INCHES IN LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
96	200	EA	CAT. 6 EXTREME 650MHZ PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 1 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
97	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 3 FOOT LENGTH; LEVITON PART # 62460-03* OR EQUAL * - COLOR			\$0.00
98	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 5 FOOT LENGTH; LEVITON PART # 62460-05* OR EQUAL * - COLOR			\$0.00
99	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 7 FOOT LENGTH; LEVITON PART # 62460-07* OR EQUAL * - COLOR			\$0.00
100	200	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 10 FOOT LENGTH; LEVITON PART # 62460-10* OR EQUAL * - COLOR			\$0.00
101	100	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 15 FOOT LENGTH; LEVITON PART # 62460-15* OR EQUAL * - COLOR			\$0.00
102	50	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 20 FOOT LENGTH; LEVITON PART # 62460-20* OR EQUAL * - COLOR			\$0.00
103	50	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON- KEYED; 50 FOOT LENGTH; SELECTION OF COLORS SHALL BE AVAILABLE FOR OUTER JACKET			\$0.00
104	50	EA	LEVITON 48-PORT 8P8C RJ45 PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U48 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED			\$0.00
105	50	EA	LEVITON 24-PORT 8P8C RJ45 PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U24 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
106	50	EA	LEVITON 12-PORT PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U12 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
107	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT6 WALL MT. PATCH PANEL; MUST BE CAT6 ENHANCED CERTIFIED; LEVITON PART # 69586-U89 OR EQUAL *EXPLANATION & SPECIFICATION SHEET ATTACHED	***		\$0.00
108	50	EA	SIEMON 48-PORT PATCH PANEL; MUST BE CAT 6 CERTIFIED; SIEMON# HD6-48 OR EQUAL			\$0.00
109	50	EA	SIEMON 24-PORT PATCH PANEL; MUST BE CAT 6 CERTIFIED; SIEMON# HD6-24 OR EQUAL			\$0.00
110	1000	EA	2-PORT SURFACE MOUNT BOX; LEVITON PART # 41089-2*P OR EQUAL * - COLOR			\$0.00
111	100	EA	4-PORT SURFACE MOUNT BOX; LEVITON PART # 41089-4*P OR EQUAL * - COLOR			\$0.00
112	100	EA	SINGLE GANG IVORY BLANK WALL PLATE; LEVITON PART# 86014 OR EQUAL			\$0.00
113	100	EA	SINGLE GANG WHITE BLANK WALL PLATE; LEVITON PART# 88014 OR EQUAL			\$0.00

114	100	EA	QUICKPORT STAINLESS STEEL FLUSH WALLPHONE WALLPLATE; LEVITON PART# 4108W-0SP OR EQUAL			\$0.00
115	500	EA	1-PORT WALLPLATES; LEVITON PART # 41080-1*P OR EQUAL * - COLOR			\$0.00
116	1000	EA	2-PORT WALLPLATES; LEVITON PART # 41080-2*P OR EQUAL * - COLOR			\$0.00
117	100	EA	3-PORT WALLPLATES; LEVITON PART # 41080-3*P OR EQUAL * - COLOR			\$0.00
118	100	EA	4-PORT WALLPLATES; LEVITON PART # 41080-4*P OR EQUAL * - COLOR			\$0.00
119	50	EA	6-PORT WALLPLATES; LEVITON PART # 41080-6*P OR EQUAL * - COLOR			\$0.00
120	5000	FT	FIBER OPTIC CABLE 48-STRAND I/O MULTIMODE 62.5/125 OCC PART # DX048-105D-WLS/900-OFNR OR CORNING PART # 048KWF-T4130D20 OR EQUAL			\$0.00
121	5000	FT	FIBER OPTIC CABLE 24-STRAND I/O MULTIMODE 62.5/125 OCC PART # DX024-085D-WLS/900-OFNR OR CORNING PART # 024K8F-31130-24 OR EQUAL			\$0.00
122	5000	FT	FIBER OPTIC CABLE 12-STRAND I/O MULTIMODE 62.5/125 OCC PART # DX012-065D-WLS/900-OFNR OR CORNING PART # 012K8F-31130-24 OR EQUAL			\$0.00
123	5000	FT	FIBER OPTIC CABLE 6-STRAND I/O MULTIMODE 62.5/125 OCC PART # DX006-055D-WLS/900-OFNR OR CORNING PART # 006K8F-31130-24 OR EQUAL			\$0.00
124	5000	FT	FIBER OPTIC CABLE 48-STRAND I/O PLENUM RATED MULTIMODE 62.5/125 OCC PART # DX048-095K-WLS/900-OFNP OR CORNING PART # 048KWP-T4130D20 OR EQUAL			\$0.00
125	5000	FT	FIBER OPTIC CABLE 24-STRAND I/O PLENUM RATED MULTIMODE 62.5/125 OCC PART # DX24-075K-WLS/900/OFNP OR CORNING PART # 024K8P-31130-29 OR EQUAL			\$0.00
126	5000	FT	FIBER OPTIC CABLE 12-STRAND I/O PLENUM RATED MULTIMODE 62.5/125 OCC PART # DX12-060K-WLS/900-OFNP OR CORNING PART # 012K8P-31130-29 OR EQUAL			\$0.00
127	5000	FT	FIBER OPTIC CABLE 6-STRAND I/O PLENUM RATED MULTIMODE 62.5/125 OCC PART # DX06-045K-WLS/900-OFNP OR CORNING PART # 006K8P-31130-29 OR EQUAL			\$0.00
128	5000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX48-105D-WLS/900-OFNR-IA1 OR CORNING PART # 048KWF-T4130DA1 OR EQUAL			\$0.00
129	5000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX24-085D-WLS/900-OFNR-IA1 OR CORNING PART # 024K8F-31130-A1 OR EQUAL			\$0.00
130	5000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX12-065D-WLS/900-OFNR-IA1 OR CORNING PART # 012K8F-31130-A1 OR EQUAL			\$0.00
131	5000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX06-055D-WLS/900-OFNR-IA1 OR CORNING PART # 006K8F-31130-A1 OR EQUAL			\$0.00
132	5000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX48-095K-WLS/900-OFNR-IAK OR CORNING PART # 048KWP-T4130DA1 OR EQUAL			\$0.00
133	5000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX24-070K-WLS/900-OFNR-IAK OR CORNING PART # 024K8P-31130-A3 OR EQUAL			\$0.00
134	5000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX12-060K-WLS/900-OFNR-IAK OR CORNING PART # 012K8P-31130-A3 OR EQUAL			\$0.00

135	5000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX06-050K-WLS/900-OFCP-IAK OR CORNING PART # 006K8P-31130-A3 OR EQUAL			\$0.00
136	3000	FT	FIBER OPTIC CABLE 24-STRAND OUTDOOR AERIAL W / 1/4" MESSENGER MULTIMODE 62.5/125 OCC PART # MX24-095A-WLS/900-JGS OR CORNING PART # 024KWA-T4130D20 OR EQUAL			\$0.00
137	3000	FT	FIBER OPTIC CABLE 12-STRAND OUTDOOR AERIAL W / 1/4" MESSENGER MULTIMODE 62.5/125 OCC PART # MX12-090A-WLS/900-JGS OR CORNING PART # 012KWA-T4130D20 OR EQUAL			\$0.00
138	3000	FT	FIBER OPTIC CABLE 6-STRAND OUTDOOR AERIAL W / 1/4" MESSENGER MULTIMODE 62.5/125 OCC PART # MX06-090A-WLS/900-JGS OR CORNING PART # 006KWA-T4130D20 OR EQUAL			\$0.00
139	3000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR MULTIMODE 50/125 OCC PART # DX048-105D-ALS/900-OFNR OR CORNING PART # 048CWF-T4131D20 OR EQUAL			\$0.00
140	3000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR MULTIMODE 50/125 OCC PART # DX024-085D-ALS/900-OFNR OR CORNING PART # 024C8F-31131-24 OR EQUAL			\$0.00
141	3000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR MULTIMODE 50/125 OCC PART # DX012-065D-ALS/900-OFNR OR CORNING PART # 012C8F-31131-24 OR EQUAL			\$0.00
142	3000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR MULTIMODE 50/125 OCC PART # DX006-055D-ALS/900-OFNR OR CORNING PART # 006C8F-31131-24 OR EQUAL			\$0.00
143	3000	FT	FIBER OPTIC CABLE 48-STRAND I/O PLENUM RATED MULTIMODE 50/125 OCC PART # DX048-095K-ALS/900-OFNP OR CORNING PART # 048CWP-T4131D20 OR EQUAL			\$0.00
144	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O PLENUM RATED MULTIMODE 50/125 OCC PART # DX024-070K-ALS/900-OFNP OR CORNING PART # 024C8P-31131-29 OR EQUAL			\$0.00
145	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O PLENUM RATED MULTIMODE 50/125 OCC PART # DX012-060K-ALS/900-OFNP OR CORNING PART # 012C8P-31131-29 OR EQUAL			\$0.00
146	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O PLENUM RATED MULTIMODE 50/125 OCC PART # DX006-045K-ALS/900-OFNP OR CORNING PART # 006C8P-31131-29 OR EQUAL			\$0.00
147	3000	FT	FIBER OPTIC CABLE 48-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX48-105D-ALS/900-OFNR-IAK OR CORNING PART # 048CWF-T4131DA1 OR EQUAL			\$0.00
148	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX24-085D-ALS/900-OFNR-IAK OR CORNING PART # 024C8F-31131-A1 OR EQUAL			\$0.00
149	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O 50UM MULTIMODE ARMORED OCC PART# DX12-065D-ALS/900-OFNR-IAK OR CORNING PART # 012C8F-31131-A1 OR EQUAL			\$0.00
150	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX06-055D-ALS/900-OFNR-IAK OR CORNING PART # 006C8F-31131-A1 OR EQUAL			\$0.00
151	3000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX48-095K-ALS/900-OFCP-IAK OR CORNING PART # 048CWP-T4131DA1 OR EQUAL			\$0.00

152	3000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX24-070K-ALS/900-OFCP-IAK OR CORNING PART # 024C8P-31131-A3 OR EQUAL			\$0.00
153	3000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX12-060K-ALS/900-OFCP-IAK OR CORNING PART # 012C8P-31131-A3 OR EQUAL			\$0.00
154	3000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX06-050K-ALS/900-OFCP-IAK OR CORNING PART # 006C8P-31131-A3 OR EQUAL			\$0.00
155	3000	FT	FIBER OPTIC CABLE 12-STRAND OUTDOOR AERIAL/DUCT MULTIMODE 50/125 OCC PART # DX012-075A-ALS/900 OR CORNING PART # 012CW4-T4131D20 OR EQUAL			\$0.00
156	3000	FT	FIBER OPTIC CABLE 12-STRAND OUTDOOR AERIAL W/MESSENGER MULTIMODE 50/125 OCC PART # M12-090A-ALS/900-JGS OR CORNING PART # 012CWA-T4131D20 OR EQUAL			\$0.00
157	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O SINGLEMODE 9/125 OCC PART # DX24-085D-SLX/900-OFNR-WB OR CORNING PART # 024E8F-31131-24 OR EQUAL			\$0.00
158	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O SINGLEMODE 9/125 OCC PART # DX12-065D-SLX/900-OFNR-WB OR CORNING PART # 012E8F-31131-24 OR EQUAL			\$0.00
159	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O SINGLEMODE 9/125 OCC PART # DX06-055D-SLX/900-OFNR-WB OR CORNING PART # 006E8F-31131-24 OR EQUAL			\$0.00
160	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O PLENUM RATED SINGLEMODE 9/125 OCC PART # DX24-070K-SLX/900-OFNP-WB OR CORNING PART # 024E8P-31131-29 OR EQUAL			\$0.00
161	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O PLENUM RATED SINGLEMODE 9/125 OCC PART # DX12-060K-SLX/900-OFNP-WB OR CORNING PART # 012E8P-31131-29 OR EQUAL			\$0.00
162	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O PLENUM RATED SINGLEMODE 9/125 OCC PART # DX06-045K-SLX/900-OFNP-WB OR CORNING PART # 006E8P-31131-29 OR EQUAL			\$0.00
163	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX24-085D-SLX/900-OFNR-IAK OR CORNING PART # 024E8F-31131-A1 OR EQUAL			\$0.00
164	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX12-070D-SLX/900-OFNR-IAK OR CORNING PART # 012E8F-31131-A1 OR EQUAL			\$0.00
165	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX06-060D-SLX/900-OFNR-IAK OR CORNING PART # 006E8F-31131-A1 OR EQUAL			\$0.00
166	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX24-070K-SLX/900-OFCP-IAK OR CORNING PART # 024E8P-31131-A3 OR EQUAL			\$0.00
167	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX12-060K-SLX/900-OFCP-IAK OR CORNING PART # 012E8P-31131-A3 OR EQUAL			\$0.00
168	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX06-050K-SLX/900-OFCP-IAK OR CORNING PART # 006E8P-31131-A3 OR EQUAL			\$0.00
169	2000	FT	OCC FIBER OPTIC HYBRID CABLE 96 FIBER ARMORED PLENUM COATED (48 STRAND MULTI-MODE 50/125 & 48 STRAND SINGLEMODE 9/125) OCC PART# DX96-140K-48ALS-48SLX/900-OFCP-IAK OR EQUAL			\$0.00

170	2000	FT	FIBER OPTIC HYBRID CABLE 48 FIBER ARMORED PLENUM COATED (24 STRAND MULTI-MODE 50/125 & 24 STRAND SINGLEMODE 9/125) OCC PART # DX48-095K-24ALS-24SLX/900-OFCP-IAK OR CORNING PART # 048XWP-T41XXD20 OR EQUAL			\$0.00
171	2000	FT	FIBER OPTIC HYBRID CABLE 24 FIBER ARMORED PLENUM COATED (12 STRAND MULTI-MODE 50/125 & 12 STRAND SINGLEMODE 9/125) OCC PART # DX24-075K-12ALS-12SLX/900-OFCP-IAK OR CORNING PART # 024X8P-311XX-A3 OR EQUAL			\$0.00
172	2000	EA	SIECOR SC MM 62.5UM CONNECTORS, PART # 95-000-40 OR EQUAL			\$0.00
173	1000	EA	SIECOR ST MM 62.5UM CONNECTORS, PART # 95-000-50 OR EQUAL			\$0.00
174	500	EA	SIECOR SC MM 50UM CONNECTORS, PART# 95-050-41 OR EQUAL			\$0.00
175	500	EA	SIECOR ST MM 50UM CONNECTORS, PART# 95-050-51 OR EQUAL			\$0.00
176	500	EA	SIECOR SC SM CONNECTORS, PART# 95-200-41 OR EQUAL			\$0.00
177	500	EA	SIECOR ST SM CONNECTORS, PART# 95-200-51 OR EQUAL			\$0.00
178	20	EA	SIGNAMAX 1U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# SL2M-B OR EQUAL			\$0.00
179	20	EA	SIGNAMAX 2U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# UFE4-B OR EQUAL			\$0.00
180	20	EA	SIGNAMAX 3U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# UFE6-B OR EQUAL			\$0.00
181	20	EA	SIGNAMAX 6-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-06STM OR EQUAL			\$0.00
182	20	EA	SIGNAMAX 6-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-06SCM OR EQUAL			\$0.00
183	20	EA	SIGNAMAX 8-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-08STM OR EQUAL			\$0.00
184	20	EA	SIGNAMAX 8-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-08SCM OR EQUAL			\$0.00
185	20	EA	SIGNAMAX 12-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-B-12ST OR EQUAL			\$0.00
186	20	EA	SIGNAMAX 12-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-B-12SC OR EQUAL			\$0.00
187	20	EA	SIGNAMAX BLANK PLASTIC MODULE; FITS RACK MOUNT ENCLOSURES SIGNAMAX PART # UFE-W-BL OR EQUAL			\$0.00
188	20	EA	LEVITON 1U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R1UA-A03 OR EQUAL			\$0.00
189	20	EA	LEVITON 2U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R2UA-A06 OR EQUAL			\$0.00
190	20	EA	LEVITON 3U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R3UA-A12 OR EQUAL			\$0.00
191	20	EA	LEVITON SMALL EMPTY FIBER WALL MOUNT ENCLOSURE ONLY 8" HIGH X 13" WIDE X 3.5" DEEP LEVITON PART# 5W110-00N OR EQUAL			\$0.00
192	20	EA	LEVITON MEDIUM EMPTY FIBER WALL MOUNT ENCLOSURE ONLY 14" HIGH X 12" WIDE X 5.25" DEEP LEVITON PART# 5W310-00N OR EQUAL			\$0.00
193	20	EA	LEVITON LARGE EMPTY FIBER WALL MOUNT ENCLOSURE ONLY 17" HIGH X 15" WIDE X 5.25" DEEP LEVITON PART# 5W710-00N OR EQUAL			\$0.00
194	50	EA	LEVITON ST FIBER 6-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES ONLY LEVITON PART# 5F100-1ST OR EQUAL			\$0.00
195	50	EA	LEVITON SC FIBER 6-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES ONLY LEVITON PART# 5F100-3SC OR EQUAL			\$0.00

196	50	EA	LEVITON BLANK 6-PACK FOR FIBER ENCLOSURES LEVITON PART# 5F100-BPP OR EQUAL			\$0.00
197	50	EA	LEVITON SC FIBER 8-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES LEVITON PART# 5F100-8SC OR EQUAL			\$0.00
198	50	EA	LEVITON SC FIBER 12-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES LEVITON PART# 5F100-CSC OR EQUAL			\$0.00
199	50	EA	SIECOR ST CONNECTOR PANEL, PART # WIC-CP1-25 OR EQUAL			\$0.00
200	50	EA	SIECOR SC CONNECTOR PANEL, PART # WIC-CP1-56 OR EQUAL			\$0.00
201	30	EA	SIECOR WALL MOUNT FIBER ENCLOSURE, PART # WIC-012 OR EQUAL			\$0.00
202	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER ST TO ST			\$0.00
203	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER ST TO SC			\$0.00
204	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER SC TO SC			\$0.00
205	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO ST			\$0.00
206	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO SC			\$0.00
207	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO LC			\$0.00
208	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER SC TO MTRJ			\$0.00
209	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO MTRJ			\$0.00
210	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER ST TO ST			\$0.00
211	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER ST TO SC			\$0.00
212	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER SC TO SC			\$0.00
213	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO ST			\$0.00
214	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO SC			\$0.00
215	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO LC			\$0.00
216	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER SC TO MTRJ			\$0.00
217	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO MTRJ			\$0.00
218	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER ST TO ST			\$0.00
219	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER ST TO SC			\$0.00
220	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER SC TO SC			\$0.00
221	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO ST			\$0.00
222	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO SC			\$0.00
223	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO LC			\$0.00
224	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER SC TO MTRJ			\$0.00
225	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO MTRJ			\$0.00
226	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER ST TO ST			\$0.00
227	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER ST TO SC			\$0.00
228	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER SC TO SC			\$0.00
229	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO ST			\$0.00

230	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO SC			\$0.00
231	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO LC			\$0.00
232	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER SC TO MTRJ			\$0.00
233	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO MTRJ			\$0.00
234	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER ST TO ST			\$0.00
235	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER ST TO SC			\$0.00
236	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER SC TO SC			\$0.00
237	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO ST			\$0.00
238	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO SC			\$0.00
239	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO LC			\$0.00
240	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER SC TO MTRJ			\$0.00
241	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO MTRJ			\$0.00
242	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER ST TO ST			\$0.00
243	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER ST TO SC			\$0.00
244	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER SC TO SC			\$0.00
245	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO ST			\$0.00
246	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO SC			\$0.00
247	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO LC			\$0.00
248	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER SC TO MTRJ			\$0.00
249	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO MTRJ			\$0.00
250	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER ST TO ST			\$0.00
251	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER ST TO SC			\$0.00
252	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER SC TO SC			\$0.00
253	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO ST			\$0.00
254	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO SC			\$0.00
255	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO LC			\$0.00
256	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER SC TO MTRJ			\$0.00
257	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO MTRJ			\$0.00
258	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER ST TO ST			\$0.00
259	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER ST TO SC			\$0.00
260	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER SC TO SC			\$0.00
261	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO ST			\$0.00
262	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO SC			\$0.00
263	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO LC			\$0.00
264	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER SC TO MTRJ			\$0.00



265	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO MTRJ				\$0.00
266	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER ST TO ST				\$0.00
267	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER ST TO SC				\$0.00
268	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER SC TO SC				\$0.00
269	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO ST				\$0.00
270	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO SC				\$0.00
271	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO LC				\$0.00
272	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER SC TO MTRJ				\$0.00
273	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO MTRJ				\$0.00
274	20	EA	KENTROX CSU/DSU T1 TO ETHERNET EXTENDER PART# 4020CE OR EQUAL				\$0.00
275	20	EA	ALLIED TELESYN ST TO RJ45 FEMALE FIBER MEDIA CONVERTER 10/100MEG PART# AT-FS201 OR EQUAL				\$0.00
276	20	EA	ALLIED TELESYN CENTRE COM MC13 UTP/FIBER ST 10MBPS MEDIA CONVERTER PART# ATMC13-10 OR EQUAL				\$0.00
277	20	EA	TRANSITION NETWORKS ETHERNET 10BASE-T TO 10BASE-FL STAND-ALONE MEDIA CONVERTER; TRANSITION NETWORKS PART# E-TBT-FRL-05 OR EQUAL				\$0.00
278	20	EA	TRANSITION NETWORKS FAST ETHERNET 100BASE-TX TO 100BASE-FX STAND-ALONE MEDIA CONVERTER; TRANSITION NETWORKS PART# E-100BTX-FX-05 OR EQUAL				\$0.00
279	10	EA	Systimax 600G2-1U-MOD-SD 600G2 Modular Shelf, 1U, Slide PART# 760028324 BID SYSTIMAX				\$0.00
280	10	EA	Systimax RS-2AF-16SF RoloSplice Kit E/W 2x Fusion Splice Tray 1U Shelf PART# 760039867 BID SYSTIMAX				\$0.00
281	10	EA	Systimax 600G2-2U-MOD-SD 600G2 Modular Shelf, 2U, Slide PART# 760032086 BID SYSTIMAX				\$0.00
282	10	EA	Systimax RS-4AF-16SF RoloSplice Kit E/W 4x Fusion Splice Tray 2U Shelf PART# 760031856 BID SYSTIMAX				\$0.00
283	20	EA	Systimax MODG2-12LC-SM-PT G2 Module_12LC TeraSPEED Pigtails PART# 760031039 BID SYSTIMAX				\$0.00
284	20	EA	Systimax MODG2-12LC-LS-PT G2 Module_12LC LazrSPEED 550 Pigtails PART# 760027748 BID SYSTIMAX				\$0.00
285	5000	EA	Systimax 12 Strand / Single-mode Armoured Fiber Optic Cable PART# 760004358-APYL BID SYSTIMAX				\$0.00
286	5000	EA	Systimax 12 Strand / Multi-mode Armoured Fiber Optic Cable PART# 700009731-APAQ BID SYSTIMAX				\$0.00
287	150,000	EA	Systimax 2071E Category 6 Gigaspeed XL Plenum Cable, Yellow PART# 700210123 BID SYSTIMAX				\$0.00
288	150,000	EA	Systimax 2071E Category 6 Gigaspeed XL Plenum Cable, Blue PART# 700208093 BID SYSTIMAX				\$0.00
289	2500	EA	Systimax MGS400 Info. Outlet, MGS400-318 Blue PART# 700206758 BID SYSTIMAX				\$0.00
290	2500	EA	Systimax MGS400 Info. Outlet, MGS400-123 Yellow PART# 700206691 BID SYSTIMAX				\$0.00
291	400	EA	Systimax M12L-003 2 Port Faceplate Ivory PART# 108168477 BID SYSTIMAX				\$0.00

292	300	EA	Systimax M14L-003 4 Port Faceplate Ivory 108168550 PART# BID SYSTIMAX				\$0.00
293	2000	EA	Systimax M60DA-318 Blue ICON PART# 107296709 BID SYSTIMAX				\$0.00
294	2000	EA	Systimax M60DA-123 Yellow ICON 107296667 PART# BID SYSTIMAX				\$0.00
295	350	EA	Systimax M106FR4-003 4 Port 106 Frame 106627763 PART# BID SYSTIMAX				\$0.00
296	50	EA	Systimax PM-GS3-48: 48 Port Patch Panel 760062364 PART# BID SYSTIMAX				\$0.00
297	50	EA	Systimax PM-GS3-24: 24 Port Patch Panel 760062356 PART# BID SYSTIMAX				\$0.00
298	10	EA	HARGER 1/4" X 2" X 12" TGB KIT PART# GB114212TGBKT BID HARGER				\$0.00
299	20	EA	HARGER RACK GROUND BAR KIT PART# RGBVKIT145836A BID HARGER				\$0.00
300	50	EA	Hubbell System 1 Poke Thru Unit S1PTAVFIT PART# BID HUBBELL				\$0.00
301	50	EA	Hubbell System 1 Universal Cover Brass PART# S1CFCBRS BID WIREMOLD				\$0.00
302	50	EA	Hubbell System 1 Subplate Double Duplex S1SPDU PART# BID HUBBELL				\$0.00
303	50	EA	Hubbell 4 Port 106 Frame Black BR106B PART# BID HUBBELL				\$0.00
304	10	EA	Hubbell Snap-Fit Blank 10 Pack Black SFFB10 PART# BID HUBBELL				\$0.00
305	15	EA	Wiremold Flamestopper 2" Unit FS2R-Red PART# BID WIREMOLD				\$0.00
306	20	EA	Wiremold Flamestopper 4" Unit FS4R-Red PART# BID CHATSWORTH				\$0.00
307	10	EA	Chatsworth Evolution g1 Single-Sided Vertical Wire Manager PART# 35511-703 BID CHATSWORTH				\$0.00
308	10	EA	Chatsworth Evolution g1 Fiber Segregation Kit 35475-701 PART# BID CHATSWORTH				\$0.00
309	20	EA	Chatsworth Evolution g1 Spool Kit, Black PART# 15008-001 BID CHATSWORTH				\$0.00
310	15	EA	Chatsworth Evolution g2 EDouble-Sided Vertical Wire Manager PART# 35521-703 BID CHATSWORTH				\$0.00
311	10	EA	Chatsworth CCS Double-Sided Vertical Wire Manager PART# 30162-703 BID CHATSWORTH				\$0.00
312	20	EA	Chatsworth Spool Kit, Black 15008-001 PART# BID CHATSWORTH				\$0.00
313	10	EA	Brady IDXPRT Labels Catalog # XC-1500-580 - WT-BK BID BRADY				\$0.00
314	10	EA	Brady IDXPRT Labels Catalog # XC-1500-580 -WT-RD BID BRADY				\$0.00
315	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - GN-WT BID BRADY				\$0.00

316	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - BL-WT BID BRADY			\$0.00
317	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - YL-BK BID BRADY			\$0.00
318	10	EA	Brady IDXPRT Labels Catalog #XC-500-580 - BL-WT BID BRADY			\$0.00
319	10	EA	Brady IDXPRT Labels Catalog # X-30-422 BID BRADY			\$0.00
320	50	EA	Brady IDXPRT Labels Catalog # XSL-31-427 BID BRADY			\$0.00
321	50	EA	Brady IDXPRT Labels Catalog # XSL-31-427 - YL-BK BID BRADY			\$0.00
322	10	PK	HELLERMAN TYTON PART # GWT003X2 OR EQUAL			\$0.00
323	10	PK	HELLERMAN TYTON PART # CT2012X2 OR EQUAL			\$0.00
TOTAL COST OF ALL ITEMS						\$ 0.00

## CABLE 10 Statewide Contract

### TOTAL EVALUATED BID PRICE SHEET

TOTAL COST OF ALL ITEMS

INSIDE DELIVERY CHARGE (Explain)

**TOTAL EVALUATED BID PRICE**

**THERE WILL NOT BE A SPLIT AWARD FOR THIS CONTRACT.**