



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

VENDOR

\*709002526      304-344-2371  
 GRAYBAR ELECTRIC COMPANY INC  
 1010 YOUNG STREET  
  
 CHARLESTON WV 25301

SHIP TO

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

*ALTERNATE BID*

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/09/2010				

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

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
REQUEST FOR QUOTATION						
<p>THE PURCHASING DIVISION IS SOLICITING QUOTATIONS FOR THE OFFICE OF TECHNOLOGY DIVISION OF THE DEPARTMENT OF ADMINISTRATION TO ESTABLISH A BLANKET OPEN-END STATEWIDE CONTRACT TO PROVIDE COMPUTER DATA CABLE (COPPER/FIBER) AND FITTINGS FOR ALL WEST VIRGINIA STATE AGENCIES AND POLITICAL SUBDIVISIONS.</p> <p>*****            INQUIRIES</p> <p>WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON FRIDAY, APRIL 23, 2010. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER OR EMAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED.</p> <p>ADDRESS INQUIRIES TO:</p> <p>JO ANN ADKINS            DEPARTMENT OF ADMINISTRATION            PURCHASING DIVISION            2019 WASHINGTON STREET, EAST            CHARLESTON, WV 25526            FAX: 304.558.4115            E-MAIL: JO.A.ADKINS@WV.GOV</p> <p>*****</p> <p>RELEASE OF RFQ..... 04/09/2010            VENDOR'S WRITTEN QUESTIONS SUBMISSION DEADLINE            (CLOSE OF BUSINESS)..... 04/23/2010            RESPONSE TO QUESTIONS/ADDENDUM ISSUED .... 04/29/2010</p>						

RECEIVED  
 2010 MAY 18 P 12:39  
 PURCHASING DIVISION  
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
<i>Kevin Papp</i>	304-344-2371	5-18-10
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
<i>Sales Rep</i>	130794380851	

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



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AUDDOR

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LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
BID OPENING DATE..... 05/18/2010						
ATTACHMENTS:						
1. SPECIFICATIONS "CABLE10" DATED 04/08/2010						
2. CABLE10 PRICING PAGES						
3. PURCHASING AFFIDAVIT						
4. RESIDENT VENDOR PREFERENCE						
0001	1	EA		285-10		\$1,464,675.84
CABLE ACCESSORIES, ELECTRIC						
PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINIA CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHICH IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE AGENCY AS A CONDITION OF AWARD.						
EXHIBIT 10						
REQUISITION NO.: .....						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO M						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Karin Hays</i>	TELEPHONE 304-344-2371	DATE 5-18-10
TITLE <i>Sales Rep</i>	FEIN 138794380001	ADDRESS CHANGES TO BE NOTED ABOVE

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



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PURCHASING

\*709002526      304-344-2371  
 GRAYBAR ELECTRIC COMPANY INC  
 1010 YOUNG STREET  
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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO.'S:						
	NO. 1	✓				
	NO. 2	✓				
	NO. 3					
	NO. 4					
	NO. 5					
I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.						
VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.						
				<i>Kevin Hyslop</i> ..... SIGNATURE <i>GRAYBAR ELECTRIC</i> ..... COMPANY <i>5-18-10</i> ..... DATE		
NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Kevin Hyslop</i>	TELEPHONE <i>304-344-2371</i>	DATE <i>5-18-10</i>
TITLE <i>Sales Rep</i>	FEIN <i>130794380881</i>	ADDRESS CHANGES TO BE NOTED ABOVE

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



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04/09/2010				

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

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
WITH THE BID.						
REV. 09/21/2009						
***** THIS IS THE END OF RFQ CABLE10 ***** TOTAL:						\$1,464,675.84

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
<i>[Signature]</i>	304-344-2371	5-18-10
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
Sales Rep	13879438551	

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

**CABLE10**  
**Specifications/Information**

The Purchasing Division is soliciting quotations from qualified vendors for the Office of Technology Division of the Department of Administration to establish a blanket open-end statewide contract to provide computer data cable (copper/fiber) and fittings for all West Virginia State agencies and participating political subdivisions.

\*\*\*\*\*IMPORTANT – IMPORTANT – IMPORTANT\*\*\*\*\*

**WRITTEN QUESTIONS MUST BE RECEIVED NO LATER THAN CLOSE OF  
BUSINESS ON FRIDAY, APRIL 23, 2010.**

Questions may be sent via fax, e-mail, USPS, or courier and must be sent to:

Jo Ann Adkins  
Purchasing Division  
2019 Washington Street, East  
P.O. Box 50130  
Charleston, WV 25311  
304-558-4115 (Fax)  
[Jo.a.adkins@wv.gov](mailto:Jo.a.adkins@wv.gov) (Email)

Only bid submission questions will be accepted after that date and time.

\*\*\*\*\*

All terms and conditions in the written specifications which are absolute and the compliance with can not be waiver. Mandatory terms are indicated by the use of the terms *shall, will, must, maximum and minimum.*

**Materials List/Pricing Pages**

The pricing pages contain a list of all the materials to be covered by the contract. This list shows the estimated usage of materials that will be available through the contract. No future use of contract is guaranteed or implied. These pricing pages must be completed by each bidder. A vendor should bid on all items listed on the attached pricing pages. Vendor must indicate brand bid for all items.

The model/brand/specifications named herein establish the acceptable level of quality only and are not intended to reflect a preference or favor any particular brand or vendor. Vendors intending to bid an alternative product shall submit descriptive literature and samples. These samples must be received no later than five (5) days after the bid opening date. If bidder wishes to have samples

**CABLE10  
Specifications/Information**

returned, they must include a pre-paid label or other information to have the items returned at vendor's expense.

**Vendors should furnish detailed specifications with descriptive literature with the bid.**

**If bidding an "Equal To" other than the brand listed, bidders are required to supply literature with the cable specifications demonstrating the product is in fact equal in quality.**

An electronic version of CABLE10 pricing pages can be found at:  
<http://www.state.wv.us/admin/purchase/newbul.htm>

Vendor must submit a paper bid with the CABLE10 bid.

Bidders are requested to submit an electronic version of the excel document and return with bid. Additionally, bidders are also requested to include original printed document with the Purchasing Division original package. If any deviation exists between the electronic version and the printed version, the printed one submitted shall prevail.

Bidders should sign and complete the contract coordinator information at the end of the pricing pages.

Contract shall be a single award to the lowest-cost vendor with the most complete bid.

The Purchasing Division desires to enter into a fixed price contract with the successful vendor. The prices quoted in the vendor(s) quote will not be subject to any increase for the original contract term of one year. Price increase at renewal can be accepted or rejected by the Purchasing Division.

**Terms and Conditions**

**I. Delivery**

1. The cost per item (supplied by the vendor) must include delivery to the building dock and/or loading area designated by the ordering state agency.

**CABLE10**  
**Specifications/Information**

2. All materials ordered in Charleston, or any destination point in between Charleston-Huntington, Charleston-Beckley, Charleston-Parkersburg, and or Charleston-Clarksburg by any other agency other than the Office of Technology, must be delivered within 5 business days after receipt of the order.
3. All materials ordered by the Office of Technology must be delivered to the Capitol Complex in the following timeframes after the receipt of the order (the exact delivery location will be provided when the order is placed):
  - a) If total for materials ordered is \$1,000 or below – delivery must be within two (2) business hours;
  - b) If total for materials ordered is greater than \$1,000, but less than \$5,000 –delivery must be within two (2) business days;
  - c) If total for materials ordered is greater than \$5,000 – delivery must be within five (5) business days.
4. If an ordering agency requests delivery of materials to another "inside" area of the building other than the dock and/or loading area, the vendor shall supply a cost (including an explanation of how this cost was calculated) on the pricing pages to complete this "inside" delivery. For example, if DNR orders a cabinet through the contract and they request and pay for "inside delivery" to their 8<sup>th</sup> floor closet, then the vendor/delivery company will be responsible for delivery of the cabinet to the 8<sup>th</sup> floor closet and not be permitted to simply deliver the cabinet to the building loading dock.

All pricing submitted shall be FOB: Destination. (Vendor pays shipping.)

**II. Subcontracts /Joint Ventures**

The vendor is solely responsible for all work performed under the contract and shall assume responsibility for all items offered to be delivered under the terms of this contract. The State will consider the vendor to be the sole point of contact with regard to all contractual matters.

**III. Vendor Reporting**

The vendor must provide a quarterly report of purchases to the Office of Technology, with a copy to Purchasing (jo.a.adkins@wv.gov), showing the following items:

1. Name of the ordering state agency;
2. Materials ordered; and

**CABLE10**  
**Specifications/Information**

3. Total cost expended for that quarter.

The report shall be delivered to the Office of Technology and the Purchasing Division no later than the fifteenth day of the month following each quarter period. The vendor shall also provide Office of Technology and Purchasing an annual report with this same information, to be delivered at the end of each fiscal year. Failure to submit such reports may be grounds for contract termination.

Reports are to be sent to:

Marta Dean [MARTA.L.DEAN@WV.GOV](mailto:MARTA.L.DEAN@WV.GOV)

Jo Ann Adkins [JO.A.ADKINS@WV.GOV](mailto:JO.A.ADKINS@WV.GOV)

**V. Convenience Copy**

Bidders are requested to include one (1) convenience hard copy and one (1) convenience CD that contain the information included on the hard copies of the entire bid (including pricing pages) to the Purchasing Division. This convenience copy is in addition to the original hard copy and electronic version of the pricing pages as requested by the Purchasing Division.

The successful bidder shall not substitute any other brand from those awarded, nor sell any additional items under their contract not specifically covered herein, without prior written permission of the Purchasing Division



**CABLE10**

\*The use of brand name or equal specifications is for the purpose of describing the minimum standard of quality, technical performance and installation characteristics required and are not intended to limit or restrict competition for these 17 items.

Alternate bids that meet or exceed those of the brand name or equal specifications and features are invited. In order to receive full consideration, such alternate bids must be accompanied by sufficient descriptive literature and samples to clearly identify the offer and allow for a complete evaluation.

Vendors intending to bid an alternative product shall submit descriptive literature and samples must be received no later than five (5) business days following the RFQ opening date to allow the West Virginia Office of Technology time to make a determination of equality to the brand specified. Failure to provide descriptive literature and samples may result in the bid being rejected as non-responsive.

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Samples & literature must be included for each of the following 17 products bid:

- Manufacturers category 5e cable specifications (Items 45 & 46)
- Manufacturers category 5e RJ45 snap-in connector (Item 47)
- Manufacturers category 5E cable specifications (Items 48 & 49)
- Manufacturers category 5E RJ45 snap-in connector (Item 50)
- Manufacturers category 5E 12-, 24-, 48-port copper patch panels (Items 72, 73, 74 & 75)
- Manufacturers category 6 cable specifications (Items 84 & 85)
- Manufacturers category 6 RJ45 snap-in connectors (Item 86)
- Manufacturers category 6 12-, 24-, 48-port copper patch panels (Items 104, 105, 106, 107)



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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'

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	<p><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></p> <p>Corrected CABLE10 Pricing Sheets attached.</p>
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/ƒ 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/Lf 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 T568B 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 (uncolored)	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	
				In. (cm)	In. (cm)			
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° 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	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 <sub>inner</sub> = 9 μm to R <sub>outer</sub> = 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.

## 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>1/2</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:

Dimensions	
Depth	30.48 mm   1.20 in
Height	20.32 mm   0.80 in
Width	20.32 mm   0.80 in
Electrical Specifications	
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
Environmental Specifications	
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)
General Specifications	
Cable Type	U/UTP (unshielded)
Color	Blue
Product Type	Outlet
Package, quantity	1
Mechanical Specifications	
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
Agency	
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



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

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/29/2010				

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

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>***** ADDENDUM NO. 2 *****</p> <p>1. CABLE10 PRICING PAGES AVAILABLE ELECTRONICALLY.</p> <p>NOTE: AN ELECTRONIC VERISON OF THE CABLE10 PRICING PAGES CAN BE FOUND AT:  <a href="http://WWW.STATE.WV.US/ADMIN/PURCHASE/NEWBUT.HTM">WWW.STATE.WV.US/ADMIN/PURCHASE/NEWBUT.HTM</a></p> <p>VENDORS MUST SUBMIT A PAPER BID WITH THE CABLE10 BID. THE PAPER BID COPY SHALL PREVAIL IF ANY DIFFERENCES EXISTS BETWEEN THE ELECTRONIC COPY AND THE PAPER COPY SUBMITTED.</p> <p>***** END OF ADDENDUM NO. 2 *****</p>						

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'

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 BID 3M		\$6.16	\$308.00
2	200	EA	VELCRO TYRAP WIRE TIES; 8" IN LENGTH; HELLERMAN TYTON PART # GT50X80P2 OR EQUAL BID PANDUIT		\$0.5731	\$114.62
3	500	EA	CABLE SUPPORT J-HOOK; ERICO PART # CAT32 OR EQUAL BID ERICO		\$2.27	\$1,135.00
4	200	EA	ELECTRICAL TAPE; 3-M SCOTCH SUPER 88 PART # 88-SUPER-3/4" X 66FT OR EQUAL BID 3M		\$3.61	\$722.00
5	50	EA	3M MOLDABLE PUTTY STIX PART # 3M-MPS-2+ OR EQUAL BID 3M		\$13.18	\$659.00
6	500	EA	CABLE RETAINER CLIP; ERICO PART # CATCR50 OR EQUAL BID ERICO		\$0.56	\$280.00
7	500	EA	SINGLE GANG LOW VOLTAGE MOUNTING BRACKETS; ARLINGTON PART # LV-1 OR EQUAL BID ARLINGTON		\$0.76	\$380.00
8	30	EA	3/4"W X 25YDS LONG BLACK VELCRO IN A ROLL VELCRO PART# 189645 OR EQUAL BID VELCRO		\$20.11	\$603.30
9	10	EA	3M WIRE MARKER DISPENSER 0 THRU 9 ON A ROLL 3-M PART # STD-0-9 (FILLED) OR EQUAL BID 3M		\$22.19	\$221.90
10	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 0 PART# SDR-0 OR EQUAL BID 3M		\$1.40	\$42.00
11	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 1 PART# SDR-1 OR EQUAL BID 3M		\$1.40	\$42.00
12	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 2 PART# SDR-2 OR EQUAL BID 3M		\$1.40	\$42.00
13	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 3 PART# SDR-3 OR EQUAL BID 3M		\$1.40	\$42.00
14	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 4 PART# SDR-4 OR EQUAL BID 3M		\$1.40	\$42.00
15	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 5 PART# SDR-5 OR EQUAL BID 3M		\$1.40	\$42.00
16	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 6 PART# SDR-6 OR EQUAL BID 3M		\$1.40	\$42.00
17	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 7 PART# SDR-7 OR EQUAL BID 3M		\$1.40	\$42.00
18	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 8 PART# SDR-8 OR EQUAL BID 3M		\$1.40	\$42.00
19	30	EA	3M WIREMARKER NUMBER REFILL FOR STD-0-9 NUMBER 9 PART# SDR-9 OR EQUAL BID 3M		\$1.40	\$42.00
20	100	EA	ADJUSTABLE CABLE SUPPORT; ERICO PART#CAT425 OR EQUAL BID ERICO		\$10.90	\$1,090.00
21	20	EA	PHILLIPS HEAD 3/4" LONG 10-32 RACK SCREWS W/WASHERS 100PK MIDDLE ATLANTIC PRODUCTS PART # HP OR EQUAL BID DATATEL		\$14.81	\$296.20
22	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS GREAT LAKES PART# 1984-VCM OR EQUAL MOUNTING HARDWARE INCLUDED BID GREAT LAKES		\$179.68	\$3,593.60
23	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS CHATSWORTH PART# 12096-703 OR EQUAL MOUNTING HARDWARE INCLUDED BID CHATSWORTH		\$241.21	\$4,824.20
24	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS AFCO SYSTEMS PART# ASTCTRG84 OR EQUAL MOUNTING HARWARE INCLUDED BID CHATSWORTH		\$270.72	\$5,414.40
25	20	EA	VERTICAL WIRE MANAGER FOR 19" OR 23" RELAY RACKS SOUTHWEST PART# SWE2729BLK OR EQUAL MOUNTING HARDWARE INCLUDED BID CHATSWORTH		\$270.72	\$5,414.40
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 BID CHATSWORTH		\$98.84	\$3,953.60
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 BID CHATSWORTH		\$185.23	\$7,409.20
28	10	EA	48" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL48SR OR EQUAL BID GREAT LAKES		\$173.28	\$1,732.80
29	10	EA	36" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL36SR OR EQUAL BID GREAT LAKES		\$159.60	\$1,596.00
30	10	EA	24" WALL MOUNT SWING OUT RACK; GREAT LAKES PART # GL24SR OR EQUAL BID GREAT LAKES		\$143.63	\$1,436.30

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 BID HOFFMAN		\$1,835.00	\$18,350.00
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 BID HOFFMAN		\$1,835.00	\$18,350.00
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 BID HOFFMAN		\$1,325.00	\$13,250.00
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 BID HOFFMAN		\$1,325.00	\$13,250.00
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 BID HOFFMAN		\$1,148.00	\$5,740.00
36	10	EA	STATIONARY SHELVES FOR 19" MOUNTING IN NETWORKING CABINETS; GREAT LAKES PART # 7206-FM OR EQUAL BID HOFFMAN		\$37.28	\$372.80
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 BID GREAT LAKES		\$221.44	\$4,428.80
38	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 3/4" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 043-LD00 OR EQUAL BID PANDUIT		\$1.01	\$1,010.00
39	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 1 1/2" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 042-LD00 OR EQUAL BID PANDUIT		\$1.52	\$1,520.00
40	1000	FT	RACEWAY MOLDING; ONE-PIECE; NON-METALLIC; 2 1/2" WIDTH; 6 FT. LENGTH; DEKDUCT PART # 045-LD00 OR EQUAL BID PANDUIT		\$1.59	\$1,590.00
41	1000	FT	RACEWAY MOLDING; TWO-PIECE; NON-METALLIC; 4" WIDTH X 2" DEPTH; DEKDUCT PART # 046-4020DWP OR EQUAL BID PANDUIT		\$2.18	\$2,180.00
42	20,000	FT	25 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n 18-475-36 or equal BID GENERAL CABLE		\$0.59294	\$11,858.80
43	20,000	FT	50 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n 18-579-36 or equal BID GENERAL CABLE		\$1.2117	\$24,234.00
44	20,000	FT	100 PAIR PLENUM CATEGORY 3 CABLE PART# Superior Essex p/n: 18-799-36 or equal BID GENERAL CABLE		\$2.6258	\$52,518.00



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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED		\$0.085220	\$8,522.00
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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$0.13068	\$26,136.00
47	3000	EA	QUICK PORT 8P8C MODULAR RJ45 JACKS FOR CAT5e MIN COMPLIANT; WHITE IN COLOR; LEVITON PART # 5G108-RW5 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$1.96	\$5,880.00
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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$0.09782	\$19,564.00
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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$0.16847	\$50,541.00
50	3,000	EA	LEVITON QUICKPORT 8P8C MODULAR RJ45 JACKS FOR CAT5E ENHANCED; ORANGE IN COLOR; LEVITON PART # 5G110-RO5 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$2.81	\$8,430.00
51	200	EA	CAT 5E ENHANCED 1FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 553-130-001 OR EQUAL BID QUIKTRON		\$1.37	\$274.00
52	200	EA	CAT 5E ENHANCED 3FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-003 OR EQUAL BID QUIKTRON		\$0.53	\$106.00
53	200	EA	CAT 5E ENHANCED 5FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-005 OR EQUAL BID QUIKTRON		\$0.71	\$142.00
54	200	EA	CAT 5E ENHANCED 7FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-007 OR EQUAL BID QUIKTRON		\$0.87	\$174.00
55	200	EA	CAT 5E ENHANCED 10FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-010 OR EQUAL BID QUIKTRON		\$1.15	\$230.00
56	200	EA	CAT 5E ENHANCED 14FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-014 OR EQUAL BID QUIKTRON		\$1.50	\$300.00
57	200	EA	CAT 5E ENHANCED 25FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-025 OR EQUAL BID QUIKTRON		\$2.53	\$506.00
58	100	EA	CAT 5E ENHANCED 50FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART# 553-130-050 OR EQUAL BID QUIKTRON		\$4.78	\$478.00
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 BID QUIKTRON		\$0.36	\$180.00
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 BID QUIKTRON		\$1.44	\$720.00
61	2000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 3 FOOT LENGTH; LEVITON PART# 5G460-03* OR EQUAL *- COLOR BID QUIKTRON		\$0.53	\$1,060.00
62	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 3 FOOT LENGTH; LEVITON PART# 5G460-03* OR EQUAL *- COLOR BID QUIKTRON		\$0.69	\$690.00
63	2000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 7 FOOT LENGTH; LEVITON PART# 5G460-07* OR EQUAL *- COLOR BID QUIKTRON		\$0.88	\$1,760.00
64	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 10 FOOT LENGTH; LEVITON PART# 5G460-10* OR EQUAL *- COLOR BID QUIKTRON		\$1.17	\$1,170.00

65	1000	EA	CAT. 5E GIGAMAX PATCH CABLES; RJ45M TO RJ45M BOOTED; NON-KEYED; 15 FOOT LENGTH; LEVITON PART# 5G460-15* OR EQUAL *- COLOR BID QUIKTRON		\$1.60	\$1,600.00
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 BID QUIKTRON		\$2.52	\$1,260.00
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 BID QUIKTRON		\$4.78	\$478.00
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 BID QUIKTRON		\$9.34	\$934.00
69	50	EA	LEVITON QUICKPORT HIGH DENSITY 48-PORT PATCH PANEL W/CABLE MANAGEMENT BAR LEVITON PART# 49255-H48 OR EQUAL BID LEVITON		\$43.14	\$2,157.00
70	50	EA	LEVITON QUICKPORT HIGH DENSITY 24-PORT PATCH PANEL W/CABLE MANAGEMENT BAR LEVITON PART# 49255-H24 OR EQUAL BID LEVITON		\$31.63	\$1,581.50
71	50	EA	LEVITON QUICKPORT HIGH DENSITY 12-PORT PATCH PANEL LEVITON PART#49255-H89 OR EQUAL BID LEVITON		\$8.90	\$445.00
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 BID LEVITON	***	\$138.13	\$13,813.00
73	100	EA	LEVITON 24-PORT 8P8C RJ45 CAT.5E RACKMOUNT PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U24 OR EQUAL; BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$69.07	\$6,907.00
74	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT.5E RACKMOUNT PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U12 OR EQUAL; BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$51.56	\$2,578.00
75	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT5E WALL MT. PATCH PANEL; MUST BE CAT5E ENHANCED CERTIFIED; LEVITON PART # 5G596-U89 OR EQUAL; BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$37.38	\$1,869.00
76	100	EA	SIEMON 48-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-48 OR EQUAL BID LEVITON		\$138.13	\$13,813.00
77	50	EA	SIEMON 24-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-24 OR EQUAL BID LEVITON		\$69.07	\$3,453.50
78	20	EA	SIEMON 16-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-16 OR EQUAL BID LEVITON		\$69.07	\$1,381.40
79	20	EA	SIEMON 12-PORT PATCH PANEL; MUST BE CAT.5E CERTIFIED; SIEMON #HD5-89D-12 OR EQUAL BID LEVITON		\$37.38	\$747.60
80	200	EA	SIEMON RACK MT. 1U WIRE MANAGER PART# S110-RWM-01 OR EQUAL BID SIEMON		\$19.06	\$3,812.00
81	20	EA	SIEMON WIRE MANAGER; STANDARD INTERBAY CORD MANAGER; SIEMON WM-144-5 OR EQUAL BID SIEMON		\$27.93	\$558.60
82	20	EA	2-POSITION HINGED FIXED BRACKETS FOR WALL; DATATEL PART # HPM-2 OR EQUAL BID DATATEL		\$31.10	\$622.00
83	100	EA	WIRE MANAGER; STANDARD INTERBAY CORD MANAGER; DATATEL PART # HCM-1D OR EQUAL BID DATATEL		\$24.07	\$2,407.00
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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$0.13478	\$26,956.00
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 BID GENERAL CABLE *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$0.25568	\$76,704.00
86	5000	EA	QUICKPORT CAT6 EXTREME 8P8C RJ45 SNAP-IN CONNECTOR; BLUE IN COLOR; LEVITON PART # 61110-RL6 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$4.02	\$20,100.00
87	100	EA	CAT 6 EXTREME 1FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-001 OR EQUAL BID QUIKTRON		\$2.88	\$288.00

88	200	EA	CAT 6 EXTREME 3FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-003 OR EQUAL BID QUIKTRON		\$3.18	\$636.00
89	100	EA	CAT 6 EXTREME 5FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-005 OR EQUAL BID QUIKTRON		\$3.47	\$347.00
90	200	EA	CAT 6 EXTREME 7FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-007 OR EQUAL BID QUIKTRON		\$3.77	\$754.00
91	200	EA	CAT 6 EXTREME 10FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-010 OR EQUAL BID QUIKTRON		\$4.21	\$842.00
92	200	EA	CAT 6 EXTREME 15FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-015 OR EQUAL BID QUIKTRON		\$4.95	\$990.00
93	100	EA	CAT 6 EXTREME 25FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-025 OR EQUAL BID QUIKTRON		\$6.43	\$643.00
94	50	EA	CAT 6 EXTREME 50FT CROSSOVER CABLE RED IN COLOR QUIKTRON PART # 538-130-050 OR EQUAL BID QUIKTRON		\$10.12	\$506.00
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 BID QUIKTRON		\$2.96	\$592.00
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 BID QUIKTRON		\$0.84	\$168.00
97	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 3 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-03* OR EQUAL *- COLOR		\$1.05	\$420.00
98	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 5 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-05* OR EQUAL *- COLOR		\$1.27	\$508.00
99	400	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 7 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-07* OR EQUAL *- COLOR		\$1.59	\$636.00
100	200	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 10 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-10* OR EQUAL *- COLOR		\$2.15	\$430.00
101	100	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 15 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-15* OR EQUAL *- COLOR		\$5.69	\$569.00
102	50	EA	CAT. 6 EXTREME PATCH CABLES; RJ45M TO RJ45M; NON-KEYED; 20 FOOT LENGTH; BID QUIKTRON LEVITON PART # 62460-20* OR EQUAL *- COLOR		\$5.38	\$269.00
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 BID QUIKTRON		\$5.38	\$269.00
104	50	EA	LEVITON 48-PORT 8P8C RJ45 PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U48 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED		\$202.19	\$10,109.50
105	50	EA	LEVITON 24-PORT 8P8C RJ45 PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U24 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$102.63	\$5,131.50
106	50	EA	LEVITON 12-PORT PATCH PANEL; MUST BE CAT. 6 ENHANCED CERTIFIED; LEVITON PART # 69586-U12 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$67.04	\$3,352.00
107	50	EA	LEVITON 12-PORT 8P8C RJ45 CAT6 WALL MT. PATCH PANEL; MUST BE CAT6 ENHANCED CERTIFIED; LEVITON PART # 69586-U89 OR EQUAL BID LEVITON *EXPLANATION & SPECIFICATION SHEET ATTACHED	***	\$62.53	\$3,126.50
108	50	EA	SIEMON 48-PORT PATCH PANEL; MUST BE CAT 6 CERTIFIED; SIEMON# HD6-48 OR EQUAL BID LEVITON		\$202.19	\$10,109.50
109	50	EA	SIEMON 24-PORT PATCH PANEL; MUST BE CAT 6 CERTIFIED; SIEMON# HD6-24 OR EQUAL BID LEVITON		\$102.63	\$923.67
110	1000	EA	2-PORT SURFACE MOUNT BOX; LEVITON PART # 41089-2"P OR EQUAL *- COLOR BID LEVITON		\$1.22	\$1,220.00
111	100	EA	4-PORT SURFACE MOUNT BOX; LEVITON PART # 41089-4"P OR EQUAL *- COLOR BID LEVITON		\$2.28	\$228.00
112	100	EA	SINGLE GANG IVORY BLANK WALL PLATE; LEVITON PART# 86014 OR EQUAL BID LEVITON		\$0.20	\$20.00
113	100	EA	SINGLE GANG WHITE BLANK WALL PLATE; LEVITON PART# 88014 OR EQUAL BID LEVITON		\$0.20	\$20.00

114	100	EA	QUICKPORT STAINLESS STEEL FLUSH WALLPHONE WALLPLATE; LEVITON PART# 4108W-0SP OR EQUAL BID LEVITON		\$5.87	\$587.00
115	500	EA	1-PORT WALLPLATES; LEVITON PART # 41080-1*P OR EQUAL * - COLOR BID LEVITON		\$0.94	\$470.00
116	1000	EA	2-PORT WALLPLATES; LEVITON PART # 41080-2*P OR EQUAL * - COLOR BID LEVITON		\$0.94	\$940.00
117	100	EA	3-PORT WALLPLATES; LEVITON PART # 41080-3*P OR EQUAL * - COLOR BID LEVITON		\$0.94	\$94.00
118	100	EA	4-PORT WALLPLATES; LEVITON PART # 41080-4*P OR EQUAL * - COLOR BID LEVITON		\$0.94	\$94.00
119	50	EA	6-PORT WALLPLATES; LEVITON PART # 41080-6*P OR EQUAL * - COLOR BID LEVITON		\$0.94	\$47.00
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 BID GENERAL CABLE		\$2.11	\$10,550.00
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 BID GENERAL CABLE		\$1.55	\$7,760.00
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 BID GENERAL CABLE		\$0.63	\$3,150.00
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 BID GENERAL CABLE		\$0.35929	\$1,796.45
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 BID GENERAL CABLE		\$2.6802	\$13,401.00
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 BID GENERAL CABLE		\$1.3301	\$6,650.50
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 BID GENERAL CABLE		\$0.62973	\$3,148.65
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 BID GENERAL CABLE		\$0.363	\$1,815.00
128	5000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX48-105D-WLS/900-OFNR-IAD OR CORNING PART # 048KWF-T4130DA1 OR EQUAL BID GERNERAL CABLE		\$2.4800	\$12,400.00
129	5000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX24-085D-WLS/900-OFNR-IAD OR CORNING PART # 024K8F-31130-A1 OR EQUAL BID GENERAL CANBLE		\$3.210	\$16,050.00
130	5000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX12-065D-WLS/900-OFNR-IAD OR CORNING PART # 012K8F-31130-A1 OR EQUAL BID GENERAL CABLE		\$1.63	\$8,150.00
131	5000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR ARMORED MULTIMODE 62.5/125 OCC PART # DX06-055D-WLS/900-OFNR-IAD OR CORNING PART # 006K8F-31130-A1 OR EQUAL BID GENERAL CABLE		\$1.33	\$6,650.00
132	5000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX48-095K-WLS/900-OFNR-IAD OR CORNING PART # 048KWP-T4130DA1 OR EQUAL BID GENERAL CABLE		\$3.55	\$17,750.00

133	5000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX24-070K-WLS/900-OFCP-IAK OR CORNING PART # 024K8P-31130-A3 OR EQUAL BID GENERAL CABLE		\$3.11	\$15,550.00
134	5000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED MULTIMODE 62.5/125 OCC PART # DX12-060K-WLS/900-OFCP-IAK OR CORNING PART # 012K8P-31130-A3 OR EQUAL BID GENERAL CABLE		\$1.67	\$8,350.00
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 BID GENERAL CABLE		\$1.31	\$6,550.00
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 BID GENERAL CABLE		\$1.14	\$3,420.00
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 BID GENERAL CABLE		\$0.76	\$2,280.00
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 BID GENERAL CABLE		\$0.58	\$1,740.00
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 BID GENERAL CABLE		\$1.90	\$5,700.00
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 BID GENERAL CABLE		\$1.32	\$3,960.00
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 BID GENERAL CABLE		\$0.67	\$2,010.00
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 BID GENERAL CABLE		\$0.33	\$990.00
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 BID GENERAL CABLE		\$2.15	\$6,450.00
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 BID GENERAL CABLE		\$1.21	\$3,630.00
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 BID GENERAL CABLE		\$0.56	\$1,680.00
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 BID GENERAL CABLE		\$0.33	\$990.00
147	3000	FT	FIBER OPTIC CABLE 48-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX48-105D-ALS/900-OFNR-1AD OR CORNING PART # 048CWF-T4131DA1 OR EQUAL BID GENERAL CABLE		\$3.19	\$9,570.00
148	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX24-085D-ALS/900-OFNR-1AD OR CORNING PART # 024C8F-31131-A1 OR EQUAL BID GENERAL CABLE		\$3.25	\$9,750.00

149	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O 50UM MULTIMODE ARMORED OCC PART# DX12-065D-ALS/900-OFCE-IAD OR CORNING PART # 012C8F-31131-A1 OR EQUAL BID GENERAL CABLE	\$1.63	\$4,890.00
150	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O 50UM MULTIMODE ARMORED OCC PART # DX06-055D-ALS/900-OFCE-IAD OR CORNING PART # 006C8F-31131-A1 OR EQUAL BID GENERAL CABLE	\$1.35	\$4,050.00
151	3000	FT	FIBER OPTIC CABLE 48-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX48-095K-ALS/900-OFCE-IAK OR CORNING PART # 048CWP-T4131DA1 OR EQUAL BID GENERAL CABLE	\$3.38	\$10,140.00
152	3000	FT	FIBER OPTIC CABLE 24-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX24-070K-ALS/900-OFCE-IAK OR CORNING PART # 024C8P-31131-A3 OR EQUAL BID GENERAL CABLE	\$2.92	\$8,760.00
153	3000	FT	FIBER OPTIC CABLE 12-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX12-060K-ALS/900-OFCE-IAK OR CORNING PART # 012C8P-31131-A3 OR EQUAL BID GENERAL CABLE	\$1.67	\$5,010.00
154	3000	FT	FIBER OPTIC CABLE 6-STRAND INDOOR/OUTDOOR ARMORED PLENUM COATED 50UM MULTIMODE OCC PART # DX06-050K-ALS/900-OFCE-IAK OR CORNING PART # 006C8P-31131-A3 OR EQUAL BID GENERAL CABLE	\$1.58	\$4,740.00
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 BID GENERAL CABLE	\$0.42	\$1,260.00
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 BID GENERAL CABLE	\$0.68	\$2,040.00
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 BID GENERAL CABLE	\$0.79	\$2,370.00
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 BID GENERAL CABLE	\$0.36	\$1,080.00
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 BID GENERAL CABLE	\$0.22	\$660.00
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 BID GENERAL CABLE	\$0.79	\$2,370.00
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 BID GENERAL CABLE	\$0.36	\$1,080.00
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 BID GENERAL CABLE	\$0.23	\$690.00
163	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX24-085D-SLX/900-OFCE-IAD OR CORNING PART # 024E8F-31131-A1 OR EQUAL BID GENERAL CABLE	\$2.83	\$8,490.00
164	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX12-070D-SLX/900-OFCE-IAD OR CORNING PART # 012E8F-31131-A1 OR EQUAL BID GENERAL CABLE	\$1.42	\$4,260.00
165	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O ARMORED SINGLEMODE 9/125 OCC PART # DX06-060D-SLX/900-OFCE-IAD OR CORNING PART # 006E8F-31131-A1 OR EQUAL BID GENERAL CABLE	\$1.23	\$3,690.00

166	3000	FT	FIBER OPTIC CABLE 24-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX24-070K-SLX/900-OFPC-IAK OR CORNING PART # 024E8P-31131-A3 OR EQUAL BID GENERAL CABLE	\$2.48	\$7,440.00
167	3000	FT	FIBER OPTIC CABLE 12-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX12-060K-SLX/900-OFPC-IAK OR CORNING PART # 012E8P-31131-A3 OR EQUAL BID GENERAL CABLE	\$1.36	\$4,080.00
168	3000	FT	FIBER OPTIC CABLE 6-STRAND I/O ARMORED PLENUM RATED SINGLEMODE 9/125 OCC PART # DX06-050K-SLX/900-OFPC-IAK OR CORNING PART # 006E8P-31131-A3 OR EQUAL BID BID GENERAL CABLECORNING	\$1.13	\$3,390.00
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-OFPC-IAK OR EQUAL BID GENERAL CABLE	\$4.79	\$9,580.00
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-OFPC-IAK OR CORNING PART # 048XWP-T41XXD20 OR EQUAL BID GENERAL CABLE	\$2.98	\$5,960.00
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-OFPC-IAK OR CORNING PART # 024X8P-311XX-A3 OR EQUAL BID GENERAL CABLE	\$2.85	\$5,700.00
172	2000	EA	SIECOR SC MM 62.5UM CONNECTORS, PART # 95-000-40 OR EQUAL BID CORNING	\$6.56	\$13,120.00
173	1000	EA	SIECOR ST MM 62.5UM CONNECTORS, PART # 95-000-50 OR EQUAL BID CORNING	\$6.56	\$6,560.00
174	500	EA	SIECOR SC MM 50UM CONNECTORS, PART# 95-050-41 OR EQUAL BID CORNING	\$8.93	\$4,465.00
175	500	EA	SIECOR ST MM 50UM CONNECTORS, PART# 95-050-51 OR EQUAL BID CORNING	\$8.93	\$4,465.00
176	500	EA	SIECOR SC SM CONNECTORS, PART# 95-200-41 OR EQUAL BID CORNING	\$10.00	\$5,000.00
177	500	EA	SIECOR ST SM CONNECTORS, PART# 95-200-51 OR EQUAL BID CORNING	\$10.00	\$5,000.00
178	20	EA	SIGNAMAX 1U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# SL2M-B OR EQUAL BID SIGNAMAX	\$80.52	\$1,610.40
179	20	EA	SIGNAMAX 2U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# UFE4-B OR EQUAL BID SIGNAMAX	\$149.70	\$2,994.00
180	20	EA	SIGNAMAX 3U RACKMOUNT FIBER ENCLOSURE SIGNAMAX PART# UFE6-B OR EQUAL BID SIGNAMAX	\$172.39	\$3,447.80
181	20	EA	SIGNAMAX 6-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-06STM OR EQUAL BID SIGNAMAX	\$14.74	\$294.80
182	20	EA	SIGNAMAX 6-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-06SCM OR EQUAL BID SIGNAMAX	\$16.15	\$323.00
183	20	EA	SIGNAMAX 8-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-08STM OR EQUAL BID SIGNAMAX	\$17.86	\$357.20
184	20	EA	SIGNAMAX 8-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-W-08SCM OR EQUAL BID SIGNAMAX	\$11,119.56	\$222,391.20
185	20	EA	SIGNAMAX 12-PORT ST MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-B-12ST OR EQUAL BID SIGNAMAX	\$23.81	\$476.20
186	20	EA	SIGNAMAX 12-PORT SC MM/SM MODULE; FITS RACKMOUNT ENCLOSURES SIGNAMAX PART# UFE-B-12SC OR EQUAL BID SIGNAMAX	\$22.68	\$453.60
187	20	EA	SIGNAMAX BLANK PLASTIC MODULE; FITS RACK MOUNT ENCLOSURES SIGNAMAX PART # UFE-W-BL OR EQUAL BID SIGNAMAX	\$3.97	\$79.40
188	20	EA	LEVITON 1U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R1UA-A03 OR EQUAL BID LEVITON	\$78.60	\$1,572.00
189	20	EA	LEVITON 2U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R2UA-A06 OR EQUAL BID LEVITON	\$103.94	\$2,078.80

190	20	EA	LEVITON 3U RACKMOUNT FIBER ENCLOSURE LEVITON PART# 5R3UA-A12 OR EQUAL BID LEVITON	\$138.50	\$2,770.00
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 BID LEVITON	\$52.87	\$1,057.40
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 BID LEVITON	\$71.56	\$1,431.20
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 BID LEVITON	\$153.83	\$3,076.60
194	50	EA	LEVITON ST FIBER 6-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES ONLY LEVITON PART# 5F100-1ST OR EQUAL BID LEVITON	\$17.31	\$865.50
195	50	EA	LEVITON SC FIBER 6-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES ONLY LEVITON PART# 5F100-3SC OR EQUAL BID LEVITON	\$19.50	\$975.00
196	50	EA	LEVITON BLANK 6-PACK FOR FIBER ENCLOSURES LEVITON PART# 5F100-BPP OR EQUAL BID LEVITON	\$2.72	\$136.00
197	50	EA	LEVITON SC FIBER 8-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES LEVITON PART# 5F100-8SC OR EQUAL BID LEVITON	\$20.55	\$1,027.50
198	50	EA	LEVITON SC FIBER 12-PACK TO FIT EITHER WALL MOUNT OR RACKMOUNT ENCLOSURES LEVITON PART# 5F100-CSC OR EQUAL BID LEVITON	\$33.43	\$1,671.50
199	50	EA	SIECOR ST CONNECTOR PANEL, PART # WIC-CP1-25 OR EQUAL BID CORNING	\$24.33	\$1,216.50
200	50	EA	SIECOR SC CONNECTOR PANEL, PART # WIC-CP1-56 OR EQUAL BID CORNING	\$24.33	\$1,216.50
201	30	EA	SIECOR WALL MOUNT FIBER ENCLOSURE, PART # WIC-012 OR EQUAL BID CORNING	\$38.67	\$1,160.10
202	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER ST TO ST BID QUIKTRON	\$4.87	\$487.00
203	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER ST TO SC BID QUIKTRON	\$4.87	\$487.00
204	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER SC TO SC BID QUIKTRON	\$4.87	\$487.00
205	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO ST BID QUIKTRON	\$5.71	\$571.00
206	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO SC BID QUIKTRON	\$5.71	\$571.00
207	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO LC BID QUIKTRON	\$6.56	\$656.00
208	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER SC TO MTRJ BID QUIKTRON	\$2.87	\$287.00
209	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 1 METER LC TO MTRJ BID QUIKTRON	\$3.71	\$371.00
210	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER ST TO ST BID QUIKTRON	\$5.42	\$542.00
211	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER ST TO SC BID QUIKTRON	\$5.42	\$542.00
212	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER SC TO SC BID QUIKTRON	\$5.42	\$542.00
213	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO ST BID QUIKTRON	\$6.26	\$626.00
214	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO SC BID QUIKTRON	\$6.26	\$626.00
215	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO LC BID QUIKTRON	\$7.12	\$712.00
216	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER SC TO MTRJ BID QUIKTRON	\$3.42	\$342.00
217	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 2 METER LC TO MTRJ BID QUIKTRON	\$4.26	\$426.00
218	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER ST TO ST BID QUIKTRON	\$5.94	\$594.00
219	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER ST TO SC BID QUIKTRON	\$5.94	\$594.00
220	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER SC TO SC BID QUIKTRON	\$5.94	\$594.00
221	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO ST BID QUIKTRON	\$6.80	\$680.00
222	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO SC BID QUIKTRON	\$6.80	\$680.00
223	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO LC BID QUIKTRON	\$7.65	\$765.00
224	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER SC TO MTRJ BID QUIKTRON	\$3.94	\$394.00
225	100	EA	DUPLEX FIBER OPTIC JUMPERS, 62.5/125 3 METER LC TO MTRJ BID QUIKTRON	\$4.80	\$480.00
226	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER ST TO ST BID QUIKTRON	\$4.87	\$487.00



227	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER ST TO SC BID QUIKTRON		\$4.87	\$487.00
228	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER SC TO SC BID QUIKTRON		\$4.87	\$487.00
229	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO ST BID QUIKTRON		\$5.71	\$571.00
230	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO SC BID QUIKTRON		\$5.71	\$571.00
231	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO LC BID QUIKTRON		\$6.57	\$657.00
232	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER SC TO MTRJ BID QUIKTRON		\$2.87	\$287.00
233	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 1 METER LC TO MTRJ BID QUIKTRON		\$3.71	\$371.00
234	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER ST TO ST BID QUIKTRON		\$5.42	\$542.00
235	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER ST TO SC BID QUIKTRON		\$5.42	\$542.00
236	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER SC TO SC BID QUIKTRON		\$5.42	\$542.00
237	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO ST BID QUIKTRON		\$6.26	\$626.00
238	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO SC BID QUIKTRON		\$6.26	\$626.00
239	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO LC BID QUIKTRON		\$7.12	\$712.00
240	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER SC TO MTRJ BID QUIKTRON		\$3.42	\$342.00
241	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 2 METER LC TO MTRJ BID QUIKTRON		\$4.26	\$426.00
242	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER ST TO ST BID QUIKTRON		\$5.94	\$594.00
243	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER ST TO SC BID QUIKTRON		\$5.94	\$594.00
244	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER SC TO SC BID QUIKTRON		\$5.94	\$594.00
245	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO ST BID QUIKTRON		\$6.80	\$680.00
246	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO SC BID QUIKTRON		\$6.80	\$680.00
247	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO LC BID QUIKTRON		\$7.65	\$765.00
248	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER SC TO MTRJ BID QUIKTRON		\$5.94	\$594.00
249	100	EA	DUPLEX FIBER OPTIC JUMPERS, 50/125 3 METER LC TO MTRJ BID QUIKTRON		\$6.80	\$680.00
250	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER ST TO ST BID QUIKTRON		\$5.77	\$577.00
251	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER ST TO SC BID QUIKTRON		\$5.77	\$577.00
252	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER SC TO SC BID QUIKTRON		\$5.77	\$577.00
253	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO ST BID QUIKTRON		\$6.36	\$636.00
254	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO SC BID QUIKTRON		\$6.36	\$636.00
255	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO LC BID QUIKTRON		\$6.95	\$695.00
256	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER SC TO MTRJ BID QUIKTRON		\$6.78	\$678.00
257	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 1 METER LC TO MTRJ BID QUIKTRON		\$7.70	\$770.00
258	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER ST TO ST BID QUIKTRON		\$6.18	\$618.00
259	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER ST TO SC BID QUIKTRON		\$6.18	\$618.00
260	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER SC TO SC BID QUIKTRON		\$6.18	\$618.00
261	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO ST BID QUIKTRON		\$6.78	\$678.00
262	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO SC BID QUIKTRON		\$6.36	\$636.00
263	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO LC BID QUIKTRON		\$7.37	\$737.00
264	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER SC TO MTRJ BID QUIKTRON		\$7.19	\$719.00
265	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 2 METER LC TO MTRJ BID QUIKTRON		\$8.11	\$811.00
266	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER ST TO ST BID QUIKTRON		\$6.60	\$660.00

267	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER ST TO SC <b>BID QUIKTRON</b>		\$6.60	\$660.00
268	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER SC TO SC <b>BID QUIKTRON</b>		\$6.60	\$1,768.80
269	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO ST <b>BID QUIKTRON</b>		\$7.19	\$719.00
270	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO SC <b>BID QUIKTRON</b>		\$6.36	\$636.00
271	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO LC <b>BID QUIKTRON</b>		\$7.79	\$779.00
272	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER SC TO MTRJ <b>BID QUIKTRON</b>		\$5.61	\$561.00
273	100	EA	DUPLEX FIBER OPTIC JUMPERS, 9/125 3 METER LC TO MTRJ <b>BID QUIKTRON</b>		\$6.53	\$653.00
274	20	EA	KENTROX CSU/DSU T1 TO ETHERNET EXTENDER PART# 4020CE OR EQUAL <b>BID KENTROX</b>		\$295.00	\$5,900.00
275	20	EA	ALLIED TELESYN ST TO RJ45 FEMALE FIBER MEDIA CONVERTER 10/100MEG PART# AT-FS201 OR EQUAL <b>BID ALLIED TELESYN</b>		\$199.56	\$3,991.20
276	20	EA	ALLIED TELESYN CENTRE COM MC13 UTP/FIBER ST 10MBPS MEDIA CONVERTER PART# ATMC13-10 OR EQUAL <b>BID ALLIED TELESYN</b>		\$118.45	\$2,369.00
277	20	EA	TRANSITION NETWORKS ETHERNET 10BASE-T TO 10BASE-FL STAND-ALONE MEDIA CONVERTER; TRANSITION NETWORKS PART# E-TBT-FRL-05 OR EQUAL <b>BID TRANSITION NETWORKS</b>		\$123.31	\$2,466.20
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 <b>BID TRANSITION NETWORKS</b>		\$243.10	\$4,862.00
279	10	EA	Systimax 600G2-1U-MOD-SD 600G2 Modular Shelf, 1U, Slide PART# 760028324 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$142.76	\$1,427.60
280	10	EA	Systimax RS-2AF-16SF RoloSplice Kit E/W 2x Fusion Splice Tray 1U Shelf PART# 760039867 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$30.43	\$304.30
281	10	EA	Systimax 600G2-2U-MOD-SD 600G2 Modular Shelf, 2U, Slide PART# 760032086 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$183.55	\$1,835.50
282	10	EA	Systimax RS-4AF-16SF RoloSplice Kit E/W 4x Fusion Splice Tray 2U Shelf PART# 760031856 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$26.34	\$263.40
283	20	EA	Systimax MODG2-12LC-SM-PT G2 Module_12LC TeraSPEED Pigtails PART# 760031039 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$188.65	\$3,773.00
284	20	EA	Systimax MODG2-12LC-LS-PT G2 Module_12LC LazaSPEED 550 Pigtails PART# 760027748 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$194.48	\$3,889.60
285	5000	EA	Systimax 12 Strand / Single-mode Armoured Fiber Optic Cable PART# 760004358-APYL <b>BID SYSTIMAX BID SYSTIMAX</b>		\$1.68	\$8,400.00
286	5000	EA	Systimax 12 Strand / Multi-mode Armoured Fiber Optic Cable PART# 700009731-APAQ <b>BID SYSTIMAX BID SYSTIMAX</b>		\$2.07	\$10,350.00
287	150,000	EA	Systimax 2071E Category 6 Gigaspeed XL Plenum Cable, Yellow PART# 700210123 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$0.38972	\$58,458.00
288	150,000	EA	Systimax 2071E Category 6 Gigaspeed XL Plenum Cable, Blue PART# 700208093 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$0.38972	\$58,458.00
289	2500	EA	Systimax MGS400 Info. Outlet, MGS400-318 Blue PART# 700206758 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$6.03	\$15,075.00
290	2500	EA	Systimax MGS400 Info. Outlet, MGS400-123 Yellow PART# 700206691 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$6.03	\$15,075.00
291	400	EA	Systimax M12L-003 2 Port Faceplate Ivory PART# 108168477 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$1.34	\$536.00
292	300	EA	Systimax M14L-003 4 Port Faceplate Ivory PART# 108168550 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$1.34	\$402.00
293	2000	EA	Systimax M60DA-318 Blue ICON PART# 107296709 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$0.0974	\$194.80
294	2000	EA	Systimax M60DA-123 Yellow ICON PART# 107296667 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$0.0974	\$194.80
295	350	EA	Systimax M106FR4-003 4 Port 106 Frame PART# 106627763 <b>BID SYSTIMAX BID SYSTIMAX</b>		\$1.78	\$623.00

296	50	EA	Systemax PM-GS3-48: 48 Port Patch Panel 760062364 PART# BID SYSTIMAX BID SYSTIMAX			\$385.00	\$19,250.00
297	50	EA	Systemax PM-GS3-24: 24 Port Patch Panel 760062356 PART# BID SYSTIMAX BID SYSTIMAX			\$192.50	\$9,625.00
298	10	EA	HARGER 1/4" X 2" X 12" TGB KIT PART# GB14212TGBKT BID HARGER BID HARGER			\$74.19	\$741.90
299	20	EA	HARGER RACK GROUND BAR KIT PART# RGBVKIT145836A BID HARGER BID HARGER			\$47.41	\$948.20
300	50	EA	Hubbell System 1 Poke Thru Unit S1PTAVFIT HUBBELL BID HUBBELL	PART# BID		\$109.08	\$5,454.00
301	50	EA	Hubbell System 1 Universal Cover Brass PART# S1CFCBRS BID WIREMOLD BID WIREMOLD			\$74.35	\$3,717.50
302	50	EA	Hubbell System 1 Subplate Double Duplex S1SPDU HUBBELL BID HUBBELL	PART# BID		\$22.55	\$1,127.50
303	50	EA	Hubbell 4 Port 106 Frame Black BR106B BID HUBBELL BID HUBBELL	PART#		\$1.56	\$78.00
304	10	EA	Hubbell Snap-Fit Blank 10 Pack Black SFFB10 BID HUBBELL BID HUBBELL	PART#		\$3.45	\$34.50
305	15	EA	Wiremold Flamestopper 2" Unit FS2R-Red WIREMOLD BID WIREMOLD	PART# BID		\$84.98	\$1,274.70
306	20	EA	Wiremold Flamestopper 4" Unit FS4R-Red CHATSWORTH BID CHATSWORTH	PART# BID		\$110.01	\$2,200.20
307	10	EA	Chatsworth Evolution g1 Single-Sided Vertical Wire Manager PART# 35511-703 BID CHATSWORTH BID CHATSWORTH			\$398.35	\$3,983.50
308	10	EA	Chatsworth Evolution g1 Fiber Segregation Kit 35475-701 BID CHATSWORTH BID CHATSWORTH	PART#		\$73.63	\$736.30
309	20	EA	Chatsworth Evolution g1 Spool Kit, Black PART# 15008-001 BID CHATSWORTH BID CHATSWORTH	PART# BID		\$51.85	\$1,037.00
310	15	EA	Chatsworth Evolution g2 EDouble-Sided Vertical Wire Manager PART# 35521-703 BID CHATSWORTH BID CHATSWORTH			\$536.93	\$8,053.95
311	10	EA	Chatsworth CCS Double-Sided Vertical Wire Manager PART# 30162-703 BID CHATSWORTH BID CHATSWORTH			\$304.50	\$3,045.00
312	20	EA	Chatsworth Spool Kit, Black 15008-001 CHATSWORTH BID CHATSWORTH	PART# BID		\$47.70	\$954.00
313	10	EA	Brady IDXPRT Labels Catalog # XC-1500-580 - WT-BK BID BRADY BID BRADY			\$55.88	\$558.80
314	10	EA	Brady IDXPRT Labels Catalog # XC-1500-580 -WT-RD BID BRADY BID BRADY			\$55.88	\$558.80
315	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - GN-WT BID BRADY BID BRADY			\$47.28	\$472.80
316	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - BL-WT BID BRADY BID BRADY			\$47.28	\$472.80
317	10	EA	Brady IDXPRT Labels Catalog # XC-1000-580 - YL-BK BID BRADY BID BRADY			\$47.28	\$472.80
318	10	EA	Brady IDXPRT Labels Catalog #XC-500-580 - BL-WT BID BRADY BID BRADY			\$37.58	\$375.80
319	10	EA	Brady IDXPRT Labels Catalog # X-30-422 BID BRADY BID BRADY			\$46.20	\$462.00
320	50	EA	Brady IDXPRT Labels Catalog # XSL-31-427 BID BRADY BID BRADY			\$45.12	\$2,256.00
321	50	EA	Brady IDXPRT Labels Catalog # XSL-31-427 - YL-BK BID BRADY BID BRADY			\$49.42	\$2,471.00
322	10	PK	HELLERMAN TYTON PART # GWT003X2 OR EQUAL HELLERMAN TYTON	BID		\$4.97	\$49.70
323	10	PK	HELLERMAN TYTON PART # CT2012X2 OR EQUAL HELLERMAN TYTON	BID		\$34.59	\$345.90

TOTAL COST OF ALL ITEMS

\$ 1,464,675.84

CABLE 10 Statewide Contract

TOTAL EVALUATED BID PRICE SHEET

TOTAL COST OF ALL ITEMS \$1,464,675.84

INSIDE DELIVERY CHARGE (Explain) \$6.20 per 100lb Min Charge of \$75.00

**TOTAL EVALUATED BID PRICE** **\$1,464,675.84**

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

**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.

**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).

# GenSPEED® 5000 Category 5e Cable

## Features And Benefits

- Engineered to provide stable and continuous performance
- Performance guaranteed to 200 MHz
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance

## Applications

- IEEE 802.3: 1000 BASE-T (Gigabit Ethernet), 100 BASE-TX, 10 BASE-T
- 52/155 Mp/s ATM
- ANSI X3.263: 100 Mb/s
- 4/16 Mb/s Token Ring

## Standard Compliances

- ANSI/TIA/EIA 568 B.2 (Category 5e)
- ANSI/TIA/EIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class D)
- ICEA S-90-661 (Category 5e)
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2002/95/EC
- UL 444



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## CONSTRUCTION

### Conductors

- 24 AWG solid bare annealed copper

### Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

### Rip Cord

- Applied longitudinally under jacket

### Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

### Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flexguard® Flame-Retardant PVC

## PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.200	0.180
Nominal Cable Weight (lbs/1000ft)	21	19
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	25	25
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

## PART NUMBERS

Standard packaging: 1000' Pull-Pac® II

Jacket Color	Pull-Pac® II		Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
Blue	5133299E	5131278E	5133374E	5131431E	5133300E	5131282E
White	5133255E	5131361E	5133342E	5131450E	5133250E	5131365E
Yellow	5133289E	5131379E	5133448E	5131546E		5131648E
Gray	5133200E	5131418E	5133329E	5131456E	5133204E	5131475E
Red	5133274E	5131477E	5133427E	5131553E		5131383E
Orange	5133383E	5131422E			5133667E	
Green	5133512E	5131547E	5133693E	5131575E	5133649E	5131649E
Black	5133696E	5131683E				5131689E
Pink	5133290E	5131380E	5133447E	5131478E		
Purple	5133445E	5131730E				

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Minimum run and lead-time may apply.

Non-stock items may be subject to minimum order quantities.

Data subject to change without notice.

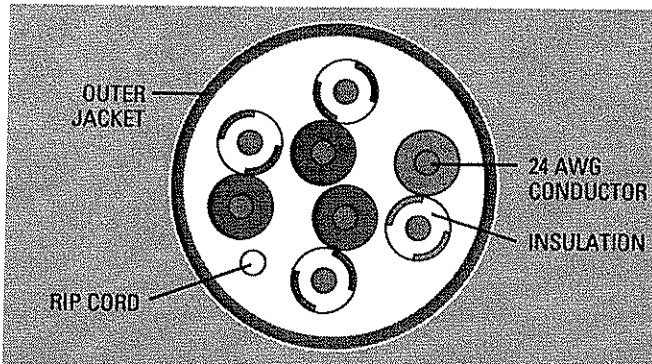


## GenSPEED® 5000 ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (max)	PSNEXT (min)	NEXT (min)	PSELFEXT (min)	ELFEXT (min)	Return Loss (min)
1	60.3	63.3	2.0	62.3	65.3	60.8	63.8	20.0
4	49.2	52.2	4.1	53.3	56.3	48.8	51.8	23.0
10	40.8	43.8	6.5	47.3	50.3	40.8	43.8	25.0
16	36.0	39.0	8.2	44.2	47.2	36.7	39.7	25.0
20	33.5	36.5	9.3	42.8	45.8	34.8	37.8	25.0
25	30.9	33.9	10.4	41.3	44.3	32.8	35.8	24.3
31.25	28.2	31.2	11.7	39.9	42.9	30.9	33.9	23.6
62.5	18.4	21.4	17.0	35.4	38.4	24.9	27.9	21.5
100	10.3	13.3	22.0	32.3	35.3	20.8	23.8	20.1
155	1.4	4.4	28.1	29.4	32.4	17.0	20.0	—
200	—	—	32.4	27.8	30.8	14.8	17.8	—
250	—	—	36.9	26.3	29.3	12.8	15.8	—
300	—	—	41.0	25.1	28.1	11.3	14.3	—
350	—	—	44.9	24.1	27.1	9.9	12.9	—

Note: Values are expressed in dB per 100m (328 ft.) length. Values above 200 MHz are for information only.

## GenSPEED® 5000 CATEGORY 5e CROSS-SECTION



## ELECTRICAL CHARACTERISTICS

<b>DC Resistance (max)</b> Ohms/100m (328ft) @ 20°C	8.9
<b>DC Resistance Unbalance (max)</b> Individual Pair %	3.0
<b>Mutual Capacitance (nom)</b> pF/ft @ 1 KHz	14
<b>Delay Skew (max)</b> ns/100m	45
<b>Nom. Velocity of Propagation</b> % Speed of Light	CMP: 72 CMR: 70
<b>Characteristic Impedance</b> Frequency (f):	Ohms 1-200 MHz 100 ± 15

# GenSPEED® 5500 Premium Category 5e Cable

## Features And Benefits

- Ensures increased headroom for future applications, lower bit-error rates, and higher signal transmission quality
- Enhanced signal-to-noise ratio, improving bit-error rate
- Performance guaranteed to 350 MHz
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance

## Applications

- IEEE 802.3: 1000 BASE-T (Gigabit Ethernet), 100 BASE-TX, 10 BASE-T
- 155 Mp/s, 622 Mp/s ATM
- ANSI X3.263: 100 Mb/s
- 4/16 Mb/s Token Ring
- Broadband and Baseband Analog Video

## Standard Compliances

- ANSI/TIA/EIA 568 B.2 (Category 5e)
- ANSI/TIA/EIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class D)
- ICEA S-90-661 (Category 5e)
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2002/95/EC
- UL 444



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Data subject to change without notice.



## CONSTRUCTION

### Conductors

- 24 AWG solid bare annealed copper

### Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

### Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

### Rip Cord

- Applied longitudinally under jacket

### Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

## PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.210	0.190
Nominal Cable Weight (lbs/1000ft)	22	20
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	25	25
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

## PART NUMBERS

Standard packaging: 1000' Pull-Pac® II

Jacket Color	Pull-Pac® II		Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
Blue	6133299	6131278	6133403	6131433	6133282	6131282
White	6133255	6131361	6133339	6131449	6133492	6131618
Yellow	6133289	6131546	6133369	6131379	6133348	6131382
Gray	6133200	6131418	6133331	6131619	6133334	
Red	6133274	6131477		6131635		
Orange	6133746	6131422	6133383	6131576		
Green	6133512	6131547	6133615	6131575	6133616	6131757
Black	6133696	6131683		6131829		
Pink	6133290	6131709	6133447	6131478	6133341	
Purple	6133445	6131710	6133446			

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Minimum run and lead-time may apply.

Non-stock items may be subject to minimum order quantities.



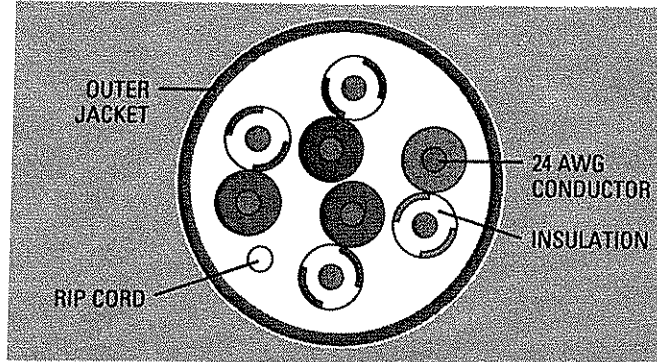
# Enhanced Transmission Throughput

## GenSPEED® 5500 ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (max)	PSNEXT (min)	NEXT (min)	PSELFEXT (min)	ELFEXT (min)	Return Loss (min)
1	66.3	68.3	2.0	68.3	70.3	62.0	65.0	20.0
4	55.4	57.4	3.9	59.3	61.3	50.0	53.0	23.0
10	47.1	49.1	6.2	53.3	55.3	42.0	45.0	25.0
16	42.3	44.3	7.9	50.2	52.2	37.9	40.9	25.0
20	39.9	41.9	8.9	48.8	50.8	36.0	39.0	25.0
25	37.4	39.4	10.0	47.3	49.3	34.0	37.0	24.3
31.25	34.7	36.7	11.2	45.9	47.9	32.1	35.1	23.6
62.5	25.1	27.1	16.3	41.4	43.4	26.1	29.1	21.5
100	17.3	19.3	21.0	38.3	40.3	22.0	25.0	20.1
155	8.6	10.6	26.9	35.4	37.4	18.2	21.2	18.8
200	2.8	4.8	31.0	33.8	35.8	16.0	19.0	18.0
250	—	—	35.3	32.3	34.3	14.0	17.0	17.3
300	—	—	39.2	31.1	33.1	12.5	15.5	16.8
350	—	—	42.9	30.1	32.1	11.1	14.1	16.3

Note: Values are expressed in dB per 100m (328 ft.) length.

## GenSPEED® 5500 PREMIUM CATEGORY 5e CROSS-SECTION



## ELECTRICAL CHARACTERISTICS

<b>DC Resistance (max)</b> Ohms/100m (328ft) @ 20°C	8.9
<b>DC Resistance Unbalance (max)</b> Individual Pair %	3.0
<b>Delay Skew (max)</b> ns/100m	45
<b>Nom. Velocity of Propagation</b> % Speed of Light	CMP: 72 CMR: 70
<b>Characteristic Impedance</b> Frequency (f): 1-350 MHz	Ohms 100 ± 15
<b>Input Impedance</b> Frequency (f): 1-100 MHz	Ohms 100 ± 15
	100-250 MHz 100 ± 22
	250-350 MHz 100 ± 32

# GenSPEED® 6000 Enhanced Category 6 Cable

## Features And Benefits

- Innovative cross-web design allowing for maximum pair separation, increasing key electrical performance parameters
- Performance guaranteed to 350 MHz
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance

## Applications

- IEEE 802.3: 1000 BASE-T (Gigabit Ethernet), 100 BASE-TX, 10 BASE-T
- ANSI/TIA/EIA 854: 1000 BASE-TX
- 155 Mp/s, 1.2 Gb/s ATM
- ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (PoE)
- Digital Video
- Broadband and Baseband Analog Video
- Draft IEEE 802.3at for PoE Plus

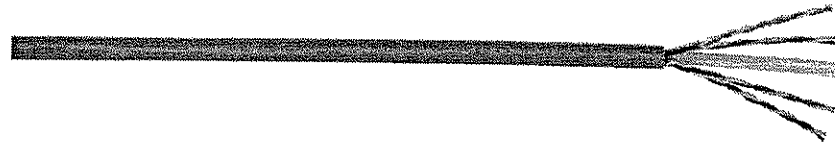
## Standard Compliances

- ANSI/TIA/EIA 568 B.2-1
- TIA 568 C Draft
- ANSI/TIA/EIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2002/95/EC
- UL 444



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RoHS Compliant  
Directive 2002/95/EC



## CONSTRUCTION

### Conductors

- 23 AWG solid bare annealed copper

### Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

### Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

### Separator

- Cross-web

### Rip Cord

- Applied longitudinally under jacket

### Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

## PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.235	0.225
Nominal Cable Weight (lbs/1000ft)	28	31
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	32	32
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

## PART NUMBERS

Standard packaging: 1000' Pull-Pac® II

Jacket Color	Pull-Pac® II		Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
Blue	7133900	7131900	7133940	7131940	7133960	7131960
White	7133901	7131901	7133941	7131941	7133961	7131961
Yellow	7133902	7131902	7133942	7131942	7133962	7131962
Gray	7133903	7131903	7133943	7131943	7133963	7131963
Red	7133904	7131904	7133944	7131944	7133964	7131964
Orange	7133905	7131905	7133945	7131945	7133965	7131965
Green	7133906	7131906	7133946	7131946	7133966	7131966
Black	7133907	7131907	7133947	7131947	7133967	7131967
Pink	7133908	7131908	7133948	7131948	7133968	7131968
Purple	7133909	7131909	7133949	7131949	7133969	7131969

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Minimum run and lead-time may apply.

Non-stock items may be subject to minimum order quantities.

Data subject to change without notice.

# Optimally Balanced Enhanced Performance

## GenSPEED® 6000 Electrical Performance

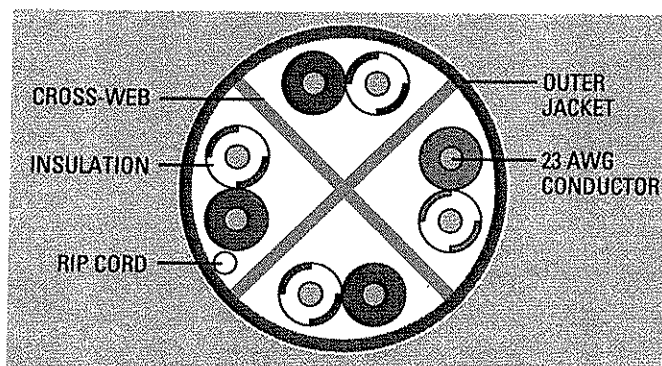
Frequency MHz	PSACR (min)		ACR (min)		Attenuation (max)		PSNEXT (min)		NEXT (min)	
	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed
1	70.3	75.3	72.3	77.3	2.0	2.0	72.3	77.3	74.3	79.3
4	59.3	64.5	61.5	66.5	3.8	3.8	63.3	68.3	65.3	70.3
10	51.3	56.4	53.3	58.4	6.0	5.9	57.3	62.3	59.3	64.3
16	46.7	51.7	48.7	53.8	7.6	7.5	54.2	59.3	56.2	61.3
20	44.3	49.4	46.3	51.4	8.5	8.4	52.8	57.8	54.8	59.8
31.25	39.2	44.3	41.2	46.3	10.7	10.6	49.9	54.9	51.9	56.9
62.5	29.9	35.1	32.0	37.1	15.4	15.3	45.4	50.4	47.4	52.4
100	22.5	27.6	24.5	29.6	19.8	19.7	42.3	47.3	44.3	49.3
150	14.9	20.0	16.9	22.0	24.7	24.7	39.7	44.7	41.7	46.7
200	8.8	13.8	10.8	15.8	29.0	29.0	37.8	42.8	39.8	44.8
250	3.5	8.7	5.5	10.7	32.8	32.6	36.3	41.3	38.3	43.3
350	—	—	—	1.7	—	39.5	—	39.2	—	41.2
500	—	—	—	—	—	48.6	—	36.8	—	38.8

Note: Values are expressed in dB per 100m (328 ft.) length. Results beyond 350 MHz for reference only.

Frequency MHz	PSELFEXT (min)		ELFEXT (min)		Return Loss (min)		LCL (min)		ELTCTL (min)	
	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed
1	64.8	69.8	67.8	72.8	20.0	20.0	40.0	40.0	35.0	35.0
4	52.8	57.7	55.7	60.7	23.0	23.6	40.0	40.0	23.0	23.0
10	44.8	49.8	47.8	52.8	25.0	26.0	40.0	40.0	15.0	15.0
16	40.7	45.7	43.7	48.7	25.0	26.0	38.0	38.0	10.9	10.9
20	38.8	43.7	41.7	46.7	25.0	26.0	37.0	37.0	9.0	9.0
31.25	34.9	39.9	37.9	42.9	23.6	25.0	35.1	35.1	5.1	5.1
62.5	28.9	33.8	31.8	36.8	21.5	23.5	32.0	32.0	5.0	5.0
100	24.8	29.8	27.8	32.8	20.1	22.5	30.0	30.0	5.0	5.0
150	21.3	26.3	24.3	29.3	18.9	21.6	28.2	28.2	5.0	5.0
200	18.8	23.8	21.8	26.8	18.0	21.0	27.0	27.0	5.0	5.0
250	16.8	21.8	19.8	24.8	17.3	20.5	26.0	26.0	5.0	5.0
350	—	18.9	—	21.9	—	19.8	—	—	—	—
500	—	15.8	—	18.8	—	19.0	—	—	—	—

Note: Values are expressed in dB per 100m (328 ft.) length. Results beyond 350 MHz for reference only.

## GenSPEED® 6000 ENHANCED CATEGORY 6 CROSS-SECTION



## ELECTRICAL CHARACTERISTICS

<b>DC Resistance (max)</b> Ohms/100m (328ft) @ 20°C	9.38
<b>DC Resistance Unbalance (max)</b> Individual Pair %	4.0
<b>Delay Skew (max)</b> ns/100m	CMP: 35 CMR: 38
<b>Nom. Velocity of Propagation</b> % Speed of Light	CMP: 70 CMR: 68
<b>Characteristic Impedance</b> Frequency (f): 1-500 MHz	Ohms 100 ± 15
<b>Input Impedance</b> Frequency (f): 1-100 MHz 100-250 MHz 250-500 MHz	Ohms 100 ± 15 100 ± 22 100 ± 32

# State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application\* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,  
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,  
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4.  **Application is made for 5% resident vendor preference for the reason checked:**  
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**  
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**  
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: GRAYBAR ELECTRIC                      Signed: Kenn Hupp  
Date: 5-18-10                                      Title: SALES REP

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: GRAYBAR ELECTRIC

Authorized Signature: *Kevin Huff* Date: 5-18-10

State of WV

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 18th day of May, 2010.

My Commission expires Jan. 16, 2019.

**AFFIX SEAL HERE**

**NOTARY PUBLIC** *Lisa B Ledsome*

