



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 35 - Telecomm

Proc Folder: 191257

Doc Description: Addendum 4 - Data Cabling Building 5

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2016-05-24	2016-05-31 13:30:00	CRFQ 0803 DOT1600000096	5

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

Pomeroy
 Attn: Summer Bailey
 500 Westmoreland Office Park
 Dunbar, WV 25064

05/31/16 12:58:57
 WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER

Misty DeLong
 (304) 558-8802
 misty.m.delong@wv.gov

Signature X *Summer Bailey*

FEIN # 61-1352158

DATE 05/27/2016

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum 4 -

1. Bid opening remains on 5/31/2016 at 1:30 pm.

2. Revised pricing page, Exhibit B, attached to correct a part number for "ETL Verified Category 6A U/UTP Cable Plenum" and change the quantity for Part Number, FDWLCSC52.

See attached pages.

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS INFORMATION SERVICE DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A719 CHARLESTON WV25305-0430 US	DIVISION OF HIGHWAYS INFORMATION SERVICE DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A719 CHARLESTON WV 25305-0430 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	INFRASTRUCTURE CABLE TELECOMMUNICATIONS	0.00000	EA	\$357,111.77	\$357,111.77

Comm Code	Manufacturer	Specification	Model #
71121102	Berk-Tek	Infrastructure Cable	

Extended Description :

INFRASTRUCTURE CABLE TELECOMMUNICATIONS DISTRIBUTION SYSTEM
 Vendor shall submit attached pricing page with bid.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Mandatory Pre-bid Meeting 10:00 AM EST	2016-04-29
2	Technical Questions Due	2016-05-06

DOT1600000096	Document Phase Final	Document Description Addendum 4 - Data Cabling Building 5	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

A MANDATORY PRE-BID meeting will be held at the following place and time:

DOH Headquarters
1900 Kanawha Blvd. East
Building 5 - Room A719
Charleston, WV 25305

Date / Time: April 29, 2016 at 10:00 AM, EST.

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility

to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: May 6, 2016

Submit Questions to: Misty Delong
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)
Email: Misty.M.Delong@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID:
BUYER: Misty Delong
SOLICITATION NO.: CRFQ DOT1600000096
BID OPENING DATE: May 24, 2016
BID OPENING TIME: 1:30 PM, EST.
FAX NUMBER:

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus NA convenience copies of each to the Purchasing Division at the address shown above. Submission of a response to a request for proposal is not permitted in wvOASIS. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)
 Technical
 Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: May 24, 2016 at 1:30 PM, EST.

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATES: Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately opened and/or viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening if those documents are required with the bid.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to

include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
2. **DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.
 - 2.1. **"Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
 - 2.2. **"Bid" or "Proposal"** means the vendors submitted response to this solicitation.
 - 2.3. **"Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.
 - 2.4. **"Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.
 - 2.5. **"Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.
 - 2.6. **"Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.
 - 2.7. **"Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.8. **"State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - 2.9. **"Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on _____ and extends for a period of _____ year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to _____ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed _____ months in total. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within 260 business days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days.

Upon completion, the vendor agrees that maintenance, monitoring, or warranty services will be provided for one year thereafter with an additional _____ successive one year renewal periods or multiple renewal periods of less than one year provided that the multiple renewal periods do not exceed _____ months in total. Automatic renewal of this Contract is prohibited.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

7. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

8. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

BID BOND: All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of 100% of contract value. The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award. In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

INSURANCE: The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

Commercial General Liability Insurance: In the amount of 1,000,000.00 or more.

Builders Risk Insurance: In an amount equal to 100% of the amount of the Contract.

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

BICSI RCDD (Registered Communications Distribution Designer) Certificate attached.

must also have OSP (outside plant) designation ← not required per Addendum #3

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

9. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. LITIGATION BOND: The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

11. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount of

for _____

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

- 12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.
- 13. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.
- 14. PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.
- 15. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 16. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules §§ 148-1-6.1.e.
- 17. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 18. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- 19. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.
- 20. PREVAILING WAGE:** Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage requirements are applicable.
- 21. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

22. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

23. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

24. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

25. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

26. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

27. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

28. BANKRUPTCY: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

29. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it 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/default.html>.

30. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

31. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor 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, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

32. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to 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 Vendor.

33. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

34. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. PURCHASING AFFIDAVIT: In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.

38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

39. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

40. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

41. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

ADDITIONAL TERMS AND CONDITIONS (Construction Contracts Only)

1. CONTRACTOR'S LICENSE: West Virginia Code § 21-11-2 requires that all persons desiring to perform contracting work in this state be licensed. The West Virginia Contractors Licensing Board is empowered to issue the contractor's license. Applications for a contractor's license may be made by contacting the West Virginia Division of Labor. West Virginia Code § 21-11-11 requires any prospective Vendor to include the contractor's license number on its bid. Failure to include a contractor's license number on the bid shall result in Vendor's bid being disqualified. Vendors should include a contractor's license number in the space provided below.

Contractor's Name: Pomeroy IT Solutions, Sales Co.

Contractor's License No. WV034855

copy attached

The apparent successful Vendor must furnish a copy of its contractor's license prior to the issuance of a Award Document.

2. DRUG-FREE WORKPLACE AFFIDAVIT: W. Va. Code § 21-1D-5 provides that any solicitation for a public improvement contract requires each Vendor that submits a bid for the work to submit at the same time an affidavit that the Vendor has a written plan for a drug-free workplace policy. To comply with this law, Vendor must either complete the enclosed drug-free workplace affidavit and submit the same with its bid or complete a similar affidavit that fulfills all of the requirements of the applicable code. Failure to submit the signed and notarized drug-free workplace affidavit or a similar affidavit that fully complies with the requirements of the applicable code, with the bid shall result in disqualification of Vendor's bid. Pursuant to W. Va. Code 21-1D-2(b) and (k), this provision does not apply to public improvement contracts the value of which is \$100,000 or less or temporary or emergency repairs.

2.1. DRUG-FREE WORKPLACE POLICY: Pursuant to W. Va. Code § 21-1D-4, Vendor and its subcontractors must implement and maintain a written drug-free workplace policy that complies with said article. The awarding public authority shall cancel this contract if: (1) Vendor fails to implement and maintain a written drug-free workplace policy described in the preceding paragraph, (2) Vendor fails to provide information regarding implementation of its drug-free workplace policy at the request of the public authority; or (3) Vendor provides to the public authority false information regarding the contractor's drug-free workplace policy.

Pursuant to W. Va. Code 21-1D-2(b) and (k), this provision does not apply to public improvement contracts the value of which is \$100,000 or less or temporary or emergency repairs.

3. DRUG FREE WORKPLACE REPORT: Pursuant to W. Va. Code § 21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. For contracts over \$25,000, the public authority shall be the West Virginia Purchasing Division. For contracts of \$25,000 or less, the public authority shall be the agency issuing the contract. The report shall include:

- (1) Information to show that the education and training service to the requirements of West Virginia Code § 21-1D-5 was provided;
- (2) The name of the laboratory certified by the United States Department of Health and Human Services or its successor that performs the drug tests;
- (3) The average number of employees in connection with the construction on the public improvement;
- (4) Drug test results for the following categories including the number of positive tests and the number of negative tests: (A) Pre-employment and new hires; (B) Reasonable suspicion; (C) Post-accident; and (D) Random.

Vendor should utilize the attached Certified Drug Free Workplace Report Coversheet when submitting the report required hereunder. Pursuant to W. Va. Code 21-1D-2(b) and (k), this provision does not apply to public improvement contracts the value of which is \$100,000 or less or temporary or emergency repairs.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the AIA A101-2007 and A201-2007 or the A107-2007 documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein.

5. SUBCONTRACTOR LIST SUBMISSION: In accordance with W. Va. Code § 5-22-1, The apparent low bidder on a contract for the construction, alteration, decoration, painting or improvement of a new or existing building or structure valued at more than \$250,000.00 shall submit a list of all subcontractors who will perform more than \$25,000.00 of work on the project including labor and materials. This provision shall not apply to any other construction projects, such as highway, mine reclamation, water or sewer projects. Additionally, if no subcontractors who will perform more than \$25,000.00 of work are to be used to complete the project, it will be noted on the subcontractor list.

- a. Required Information. The subcontractor list shall contain the following information:
 - i. Bidder's name
 - ii. Name of each subcontractor
 - iii. License numbers as required by W. Va. Code § 21-11-1 et. seq.
 - iv. Notation that no subcontractor will be used to perform more than \$25,000.00 of work, when applicable
- b. Submission. The completed subcontractor list shall be provided to the Purchasing Division within one business day of the opening of bids for review. Failure to submit the subcontractor list within one business day after the deadline for submitting bids shall result in disqualification of the bid.
- c. Substitution of Subcontractor. Written approval must be obtained from the State Spending Unit before any subcontractor substitution is permitted. Substitutions are not permitted unless:
 - i. The subcontractor listed in the original bid has filed for bankruptcy;
 - ii. The subcontractor in the original bid has been debarred or suspended; or
 - iii. The contractor certifies in writing that the subcontractor listed in the original bill fails, is unable, or refuses to perform his subcontract.

6. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

CERTIFICATION AND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Pomeroy IT Solutions Sales Co
(Company)

Summer Bailey / Technology Solutions Executive
(Authorized Signature) (Representative Name, Title)

304-553-7526 / 1-866-301-1761 / 05-27-2016
(Phone Number) (Fax Number) (Date)

REQUEST FOR QUOTATION
WVDOT BUILDING 5
**Installation, Testing and Acceptance of a Structured Cabling,
Pathways and Spaces System**

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the Department of Transportation to establish a contract for the materials and installation of a structured Installation, Testing and Acceptance of a Structured Cabling, Pathways and Spaces System at the DOT Building 5 location.
 - 1.1 **DOT Bldg. 5 Main DOT HEADQUARTERS:**
Multiple Floor Renovation (Floors 7, 8 and 9)
1900 Kanawha Blvd. S.E. Bldg. 5 Charleston, WV 25301
 - 1.1.1 Building 5 is a masonry building with drop ceilings throughout. Furniture is a mixture of both traditional office and modular office furniture. This building has (1) one equipment room with (3) three racks. The following quantities are needed: (365) three hundred sixty-five Dual Drops, (730) Cat 6A WA Outlets, (255,500 feet) Cat 6A Cable, and (210) Cat 6A Patch Cables (14) fourteen feet long and (520) five hundred twenty CAT 6A Patch Cables (10) ten feet long.
ATTACHMENT A.
 - 1.1.2 Additional details regarding Floors 7, 8 and 9 are located in **EXHIBIT A.**
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 **“Contract Services”** means installation, testing, and acceptance of a structured infrastructure cable telecommunications distribution system.
 - 2.2 **“Pricing Page”** means the pages upon which Vendor should list its proposed price for the Contract Items in the manner requested. The Pricing Page is either included on the last page of this RFQ or attached hereto as **ATTACHMENT B: COST PAGE & MATERIALS LIST.**
 - 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.1 **“(Equal)”** An “equal” product must provide the same standard of quality, technical performance-and installation characteristics of the specified product. The “or equal” product must integrate seamlessly with the current WV State CISCO Call Manager network / voice environment without reconfiguration of existing hardware or any additional products, software or software programming that would not be required for the specified product.

REQUEST FOR QUOTATION
WVDOT BUILDING 5
Installation, Testing and Acceptance of a Structured Cabling,
Pathways and Spaces System

2.2 ABBREVIATIONS AND ACRONYMS

ADMIN	Administration
ANSI	American National Standards Institute
ASAP	As Soon As Possible
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
BICSI	Building Industry Consulting Service International
Bldg.	Building
CAD	Computer Aided Drawing
Cat	Category
D-*	District-Number
DMV	Division of Motor Vehicles
DOH	Division of Highways
DOT	Department of Transportation
ECA	Electronic Components, Assemblies, Equipment & Supplies Association
EIA	Electronic Industries Alliance
FOB	Free On Board
NEC	<i>National Electrical Code®</i>
NECA	National Electrical Contractors Association
NFPA	National Fire Protection Association
SRC	State Road Commission Building
TER	Telecommunications Equipment Room
TGB	Telecommunications Grounding Busbar
TIA	Telecommunications Industry Association
TMGB	Telecommunications Main Grounding Busbar
U/UTP	Unshielded Twisted Pair
UL	Underwriters Laboratories
ULC	Underwriters Laboratories of Canada
UPS	Uninterruptible Power Supply
VOL	Volume
WAP	Wireless Access Point
WVOT	WV Office of Technology
XHCR	Through penetration Firestop devices
XNEZ	Through Penetration Firestop Systems

REQUEST FOR QUOTATION
WVDOT BUILDING 5
Installation, Testing and Acceptance of a Structured Cabling,
Pathways and Spaces System

- 3 **QUALIFICATIONS:** Vendor must have the following minimum qualifications.
- 3.1 The Vendor must have a BICSI RCDD® (Registered Communications Distribution Designer) with OSP (Outside Plant) designation on staff that will be ultimately responsible for this project. The RCDD should have experience in the installation of structured cabling telecommunications distribution systems the size and scope as the one specified in this project. Should the RCDD assigned to this project change during the installation, the new RCDD assigned must meet all requirements of the RFQ
- 3.2 The installation work portion of the project must be performed by industry registered or certified installers and technicians.
- 3.2.1 The Vendor must have BICSI Registered or equal industry manufacture certification, installers and technicians. *Registration and/or certifications should be submitted with the bid or shall be available upon request.*
- 3.3 The Vendor must have CommScope or equal manufacturer trained Installers and Technicians. *Registration and/or certifications should be submitted with the bid or shall be available upon request.*

REQUEST FOR QUOTATION
WVDOT BUILDING 5
Installation, Testing and Acceptance of a Structured Cabling,
Pathways and Spaces System

4 GENERAL REQUIREMENTS:

4.1 Mandatory Contract Services Requirements and Deliverables: Contract Services must meet or exceed the mandatory requirements listed below.

4.1.1 Regulations, Codes and Standards: The West Virginia State Building Code and the West Virginia State Fire Code are made part of this contract in their entirety and compliance with these codes is mandatory for Structured Infrastructure Cable Telecommunications Distribution Systems should follow the BICSI Telecommunications Distribution Methods.

4.1.2 Federal, state, and local codes, rules, regulations, ordinances, and requirements of authorities having jurisdiction governing the work are as fully part of the specifications as if herein repeated or hereto attached. If the contractor should note items in the specifications, construction of which would be code violations, promptly call them to the attention of the State of West Virginia's representative in writing. Where the requirements of other sections of the specifications are more stringent than applicable codes, rules, regulations, and ordinances, the specifications shall apply.

4.1.3 Materials requirements. All copper cable, fiber cable, and associated termination and installation material used must be from a single manufacture, as required by manufacturer, to provide a minimum 15-year manufacture warranty.

Refer to the ATTACHMENT B: COST PAGE &
MATERIALS LIST for quantities.

4.1.3.1 The successful Vendor has responsibility for the complete job including all sub-contractors they contract from the start to the time of complete installation for all parts and materials.

4.1.3.2 Vendor should notify the DOT - ASAP - of any / all discrepancies found.

4.1.3.3 Commscope CPCSSX2-0ZF00X (or equal) 360GS10E MODULAR PATCH CORD Category 6A/Class E [5FT/ 10FT/14FT] BLUE

4.1.3.3.1 Electrical Specifications

4.1.3.3.1.1 Resistance, maximum-0.30 ohm

4.1.3.3.1.2 ANSI/TIA Category-6A

4.1.3.3.1.3 Characteristic Impedance-100 ohm

4.1.3.3.1.4 Characteristic Impedance Tolerance ± 15 -ohm dc

4.1.3.3.1.5 Resistance Unbalance-maximum 4 %dc

4.1.3.3.1.6 Resistance, maximum-9.38 ohms/100 m

4.1.3.3.1.7 Mutual Capacitance-6.0 nF/100 m @ 1 kHz

4.1.3.3.1.8 Nominal Velocity of Propagation-(NVP) 67 %

4.1.3.3.1.9 Operating Frequency-maximum-550 MHz

4.1.3.3.1.10 Transmission Standards-ANSI/TIA-568-C.

4.1.3.3.2 Environmental Specifications

4.1.3.3.2.1 Operating Temperature-10 °C to +60 °C (+14 °F to +140 °F)

4.1.3.3.2.2 Safety Standard-cETL | ETL

4.1.3.3.2.3 Flame Test Method-CM

REQUEST FOR QUOTATION
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- 4.1.3.3.2.4 Installation Temperature-0 °C to +60 °C (+32 °F to +140 °F)
- 4.1.3.3.3 Mechanical Specifications
 - 4.1.3.3.3.1 Conductor Type-Solid
 - 4.1.3.3.3.2 Material Type -Copper alloy | Polycarbonate
 - 4.1.3.3.3.3 Outlet/Module-Contact Plating Precious metals
 - 4.1.3.3.3.4 Plug Retention Force-minimum 133 N | 30 lbs.
 - 4.1.3.3.3.5 Wiring T568B
 - 4.1.3.3.3.6 Pulling Tension-maximum 11 kg | 25 lbs.
- 4.1.3.3.4 Dimensions
 - 4.1.3.3.4.1 Diameter Over Jacket-7.239 mm | 0.285 in
 - 4.1.3.3.4.2 Jacket Thickness-1.524 mm | 0.060 in
- 4.1.3.4 Commscope 760092452 (or equal) MGS600 Series Cat 6A U/UTP Info Outlet, 318-blue
 - 4.1.3.4.1 Dimensions
 - 4.1.3.4.1.1 Depth 30.48 mm | 1.20 in
 - 4.1.3.4.1.2 Height 20.32 mm | 0.80 in
 - 4.1.3.4.1.3 Width 20.32 mm | 0.80 in
 - 4.1.3.4.2 Electrical Specifications
 - 4.1.3.4.2.1 ANSI/TIA Category 6A
 - 4.1.3.4.2.2 Contact Resistance Variation, maximum 20 mOhm
 - 4.1.3.4.2.3 Contact Resistance, maximum 100 mOhm
 - 4.1.3.4.2.4 Current Rating 1.5 A @ 20 °C
 - 4.1.3.4.2.5 1.5 A @ 68 °F
 - 4.1.3.4.2.6 Dielectric Withstand Voltage, RMS, conductive surface 1500 Vac @ 60 Hz
 - 4.1.3.4.2.7 Dielectric Withstand Voltage, RMS, contact-to-contact 1000 Vac @ 60 Hz
 - 4.1.3.4.2.8 Insulation Resistance, minimum 500 MOhm
 - 4.1.3.4.3 Environmental Specifications
 - 4.1.3.4.3.1 Flammability Rating UL 94 V-0
 - 4.1.3.4.3.2 Operating Temperature -10 °C to +60 °C (+14 °F to +140 °F)
 - 4.1.3.4.3.3 Relative Humidity Up to 95%, non-condensing
 - 4.1.3.4.3.4 Safety Standard cUL | UL
 - 4.1.3.4.3.5 General Specifications
 - 4.1.3.4.3.6 Cable Type U/UTP (unshielded)
 - 4.1.3.4.4 Mechanical Specifications
 - 4.1.3.4.4.1 Conductor Gauge, solid 22 AWG | 24 AWG
 - 4.1.3.4.4.2 Conductor Gauge, stranded 22 AWG | 24 AWG
 - 4.1.3.4.4.3 Conductor Type Solid | Stranded (7 strands)
 - 4.1.3.4.4.4 Material Type Copper alloy | High-impact, flame retardant, thermoplastic
 - 4.1.3.4.4.5 Outlet/Module Contact Plating Precious metals

REQUEST FOR QUOTATION
WVDOT BUILDING 5
Installation, Testing and Acceptance of a Structured Cabling,
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- 4.1.3.4.4.6 Plug Retention Force, minimum 30 lbf | 133 N
- 4.1.3.4.4.7 Rear Termination Contact Plating Nickel
- 4.1.3.4.4.8 Wiring T568A | T568B
- 4.1.3.19 Commscope 107952442 (or equal) M104 Type Surface Mount Box four port ivory
- 4.1.3.20 Commscope 760118240 (or equal) Faceplate 4-Hole w/blanks Modular Furniture
- 4.1.3.21 Commscope 876540410 (or equal) Category 6A U/UTP Cable, Plenum, blue jacket, 4 pair count, and 1000ft (305 m) length reel.
 - 4.1.3.21.1 Cable shall be listed for the environment where it will be installed (Plenum)
 - 4.1.3.21.2 Category 6A horizontal cabling shall provide the following Margin to the specification when installed in a 4 connector Channel.

Electrical Parameter (1-250MHZ)	Guaranteed Channel Margins to Amendment 1 to ISO/IEC 11801-2002 "Class E"
Insertion loss	3%
NEXT	3 dB
PSNEXT	5 dB
ACR-N	5 dB
PSACR-N	6.5 dB
ACR-F	6 dB
PSACR-F	8 dB
Return Loss	1 dB
Return Loss, PSANEXT, PSAACR-F, Avg. PSANEXT, Avg. PSAACR-F	2 dB

- 4.1.3.21.3 Category 6A horizontal cabling shall meet or exceed the performance specifications listed in the following table when installed in a 4 connector Channel.

REQUEST FOR QUOTATION
WV DOT BUILDING 5
Installation, Testing and Acceptance of a Structured Cabling,
Pathways and Spaces System

Frequency (MHz)	500.0	400.0	300.0	250.0	200.0	100.0	62.5	31.25	25.0	20.0	16.0	10.0	8.0	4.0	1.0
Insertion Loss (dB)	47.8	42.3	36.2	32.9	29.2	20.3	15.9	11.1	9.9	8.9	7.9	6.3	5.6	4.0	3.9
PS AND CT (dB)	49.5	51.0	52.8	54.0	55.5	60.0	62.0	65.1	66.0	67.0	67.0	67.0	67.0	67.0	67.0
AVG PS AND EXT (dB)	51.8	53.3	55.1	56.3	57.8	62.3	64.3	67.4	68.3	69.3	69.3	69.3	69.3	69.3	69.3
PS AND EXT (dB)	23.0	25.0	27.5	29.0	31.0	37.0	41.1	47.1	49.0	51.0	52.9	57.0	58.9	65.0	67.0
AVG PS AND EXT (dB)	27.0	29.0	31.5	33.0	35.0	41.0	45.1	51.1	53.0	55.0	56.9	61.0	62.9	69.0	71.0
PS AND EXT (dB)	28.9	30.6	32.7	39.1	40.8	45.9	49.4	54.4	56.0	57.6	59.2	62.6	64.2	69.0	71.0
ACT (dB)	-18.9	-11.7	-3.5	6.2	11.6	25.6	33.5	43.3	46.1	48.7	51.3	56.3	58.6	65.0	68.8
PS AND EXT (dB)	27.3	29.1	31.3	37.7	39.4	44.6	48.1	53.2	54.8	56.5	58.1	61.5	63.1	68.0	69.5
AVG PS AND EXT (dB)	-20.5	-13.2	-4.9	4.8	10.2	24.3	32.2	42.1	44.9	47.6	50.2	55.2	57.5	64.0	67.3
PS AND EXT (dB)	15.5	17.5	20.0	31.3	23.2	29.3	33.3	39.3	41.3	43.2	45.2	49.3	51.2	57.2	69.3
AVG PS AND EXT (dB)	14.5	16.5	19.0	20.3	22.2	28.3	32.3	38.3	40.3	42.2	44.2	48.3	50.2	56.2	68.3
PS AND EXT (dB)	6.0	6.0	7.2	11.0	12.0	15.0	17.0	19.2	19.1	19.0	18.9	22.0	22.0	22.0	22.0
PS AND EXT (dB)	546	546	546	546	547	548	549	550	551	552	553	555	557	562	580
PS AND EXT (dB)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40

4.1.3.21.3.1

The table provides reference values only. All parameters comply with the governing equations over the entire frequency range.

4.1.3.21.3.2

All values and equations apply to worst-case channels utilizing four-pair 91A series cables with full cross-connects, consolidation points and work area outlets (4 connections in a channel) for the length up to 100 meters.

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- 4.1.3.26 CommScope 760106880 (OR EQUAL) 12 Strand Fiber Singlemode I/O
 - 4.1.3.26.1 General Specifications Construction Materials
 - 4.1.3.26.1.1 Cable Type Stranded loose tube
 - 4.1.3.26.1.2 Construction Type Non-armored
 - 4.1.3.26.1.3 Subunit Type Gel-free
 - 4.1.3.26.1.4 Fiber Type Solution TeraSPEED®, zero water peak single-mode fiber (G.652.D, G.657.A1 | OS2)
 - 4.1.3.26.1.5 Fiber Type, quantity 12
 - 4.1.3.26.2 Dimensions
 - 4.1.3.26.2.1 Buffer Tube/Subunit Diameter 2.50 mm | 0.10 in
 - 4.1.3.26.3 Physical Specifications
 - 4.1.3.26.3.1 Minimum Bend Radius, loaded 14.6 cm | 5.7 in
 - 4.1.3.26.3.2 Product Specifications
 - 4.1.3.26.3.3 Minimum Bend Radius, unloaded 9.7 cm | 3.8 in
 - 4.1.3.26.3.4 Tensile Load, long term, maximum 800 N | 180 lbf
 - 4.1.3.26.3.5 Tensile Load, short term, max 2700 N | 607 lbf
 - 4.1.3.26.3.6 Vertical Rise, maximum 888.0 m | 2913.0 ft
 - 4.1.3.26.4 Flame Test Specifications
 - 4.1.3.26.4.1 Flame Test Listing NEC OFNP (ETL) and c(ETL)
 - 4.1.3.26.4.2 Flame Test Method NFPA 262
 - 4.1.3.26.5 Environmental Specifications
 - 4.1.3.26.5.1 Environmental Space Plenum
 - 4.1.3.26.5.2 Installation Temperature 22°F to +158 °F
 - 4.1.3.26.5.3 Operating Temperature 40°F to +158 °F
 - 4.1.3.26.6 Mechanical Test Specifications
 - 4.1.3.26.6.1 Compression 125 lb/in | 22 N/mm
 - 4.1.3.26.6.2 Water Penetration 24 h
 - 4.1.3.26.7 Environmental Test Specifications
 - 4.1.3.26.7.1 Cable Freeze 2°C | 28 °F
 - 4.1.3.26.7.2 Heat Age 40°C to +85 °C (40°F to +185 °F)
 - 4.1.3.26.7.3 Low High Bend 30°C to +60 °C (22°F to +140 °F)
 - 4.1.3.26.7.4 Temperature Cycle 40°F to +158 °F
 - 4.1.3.26.8 Qualification Specifications
 - 4.1.3.26.8.1 Cable Qualification Standards ANSI/ICEA S104696| EN 187105 | Telcordia GR409
- 4.1.3.27 CommScope 760109496 (OR EQUAL) 360G2 Cartridge 12 LC TeraSPEED, Blue w/Pigtails
 - 4.1.3.27.1 Construction Materials
 - 4.1.3.27.1.1 Fiber Type TeraSPEED®, zero water peak singlemode fiber (G.652.D, G.657.A1 or G.652.D, G.657.A1 | OS2)
 - 4.1.3.27.1.2 G.657.A1 | OS2
 - 4.1.3.27.1.3 Total Fibers, quantity 12
 - 4.1.3.27.2 General Specifications
 - 4.1.3.27.2.1 Brand SYSTIMAX 360™ | SYSTIMAX®

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- 4.1.3.27.2.2 Product Type Cartridge
- 4.1.3.27.2.3 Interface, front LC
- 4.1.3.27.2.4 Adapter Color Blue
- 4.1.3.27.2.5 Interface Feature, front Standard
- 4.1.3.27.2.6 Package Quantity 1
- 4.1.3.27.2.7 Total Ports, quantity, front 12
- 4.1.3.27.3 Optical Performance
 - 4.1.3.27.3.1 Insertion Loss Change, mating 0.30 dB
 - 4.1.3.27.3.2 Insertion Loss Change, temperature 0.30 dB
 - 4.1.3.27.3.3 Insertion Loss, typical 0.30 dB
 - 4.1.3.27.3.4 Return Loss, minimum 55.0 dB
- 4.1.3.27.4 Regulatory Compliance/Certifications
 - 4.1.3.27.4.1 Agency Classification
 - 4.1.3.27.4.1.1 RoHS 2011/65/EU Compliant
 - 4.1.3.27.4.1.2 ISO 9001:2008 Designed, manufactured and/or distributed under this quality management system
- 4.1.3.28 CommScope 760103085 (OR EQUAL) 360 G2 LC Fiber Shelf, sliding
 - 4.1.3.28.1 General Specifications
 - 4.1.3.28.1.1 Brand SYSTIMAX 360™ | SYSTIMAX®
 - 4.1.3.28.1.2 Product Type Modular cassette shelf
 - 4.1.3.28.1.3 Rack Units 1
 - 4.1.3.28.1.4 Shelf Movement Sliding
 - 4.1.3.28.1.5 Application Accepts four G2 modular cassettes | Accepts one InstaPATCH® 360 data module or 360DP panel | Accepts two RoloSplices with three trays each
- 4.1.3.29 CommScope 760039867 (OR EQUAL) RS-2AF-16SF RoloSplice Kit E/W 2x Fusion Splice Tray 1U Shelf
 - 4.1.3.29.1 General Specifications
 - 4.1.3.29.1.1 Product Type Fusion splice kit
 - 4.1.3.29.1.2 Application For G2 1U shelves and surface mount enclosures
 - 4.1.3.29.1.3 Splice Trays Included
 - 4.1.3.29.1.4 Splice Trays, quantity 2
 - 4.1.3.29.1.5 Splices, quantity 32
- 4.1.3.30 CommScope FEW LCLC42-MXF003 (OR EQUAL) 3 FOOT - LC/LC Jumper Cable – SM
 - 4.1.3.30.1 Construction Materials
 - 4.1.3.30.1.1 Fiber Type TeraSPEED®, zero water peak Singlemode fiber (G.652.D, G.657.A1 or G.652.D,
 - 4.1.3.30.1.2 G.657.A1 | OS2)
 - 4.1.3.30.1.3 Total Fibers, quantity 2
 - 4.1.3.30.2 Dimensions

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- 4.1.3.30.2.1 Cord Length, maximum 999 ft | 999 m
- 4.1.3.30.2.2 Cord Length, minimum 1 ft | 1 m
- 4.1.3.30.2.3 Diameter Over Jacket 3.00 mm | 0.12 in
- 4.1.3.30.3 Environmental Specifications
 - 4.1.3.30.3.1 Environmental Space Plenum
 - 4.1.3.30.3.2 Operating Temperature +14 °F to +140 °F
- 4.1.3.30.4 General Specifications
 - 4.1.3.30.4.1 Color, connector A Blue
 - 4.1.3.30.4.2 Color, connector B Blue
 - 4.1.3.30.4.3 Construction Type Duplex patch cord
 - 4.1.3.30.4.4 Interface, connector A LC
 - 4.1.3.30.4.5 Interface, connector B SC
 - 4.1.3.30.4.6 Interface Feature, connector A Standard
 - 4.1.3.30.4.7 Interface Feature, connector B Standard
- 4.1.3.30.5 Mechanical Specifications
 - 4.1.3.30.5.1 Cable Retention Strength, maximum 4.40 lb @ 90 °11.24 lb @ 0
- 4.1.3.26 Commscope 760103796 (or equal) M61A-318 BLUE ICON
100 \ bag

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

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

Berk-Tek documentation
Supplied.

5. CONTRACT AWARD:

5.1 Contract Award: The Contract is intended to provide Agency with a purchase price for the Contract Services. The Contract shall be awarded to the Vendor that provides the Contract Services meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

2.4 Pricing Page: Vendor should complete ATTACHMENT B: COST PAGE & MATERIALS LIST.

5.2 . Vendor should complete ATTACHMENT B: COST PAGE & MATERIALS LIST in full as failure to complete this in its entirety may result in Vendor's bid being disqualified.

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Vendor should type or electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. In most cases, the Vendor can request an electronic copy of the Pricing Pages for bid purposes by sending an email request to the following address: Misty.M.Delong@WV.Gov

6. **PERFORMANCE:** Vendor and Agency shall agree upon a schedule for performance of Contract Services and Contract Services Deliverables, unless such a schedule is already included herein by Agency. In the event that this Contract is designated as an open-end contract, Vendor shall perform in accordance with the release orders that may be issued against this Contract.

- 2.5 **PAYMENT:** Agency shall pay as shown on **ATTACHMENT B: COST PAGE & MATERIALS LIST**, for all Contract Services performed and accepted under this Contract. Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

7. **TRAVEL:** Vendor shall be responsible for all mileage and travel costs, including travel time, associated with performance of this Contract. Any anticipated mileage or travel costs may be included in the flat fee or hourly rate listed on Vendor's bid, but such costs will not be paid by the Agency separately.

8. **FACILITIES ACCESS:** Performance of Contract Services may require access cards and/or keys to gain entrance to Agency's facilities. In the event that access cards and/or keys are required:
 - 9.1 Vendor must identify principal service personnel which will be issued access cards and/or keys to perform service.
 - 9.2 Vendor will be responsible for controlling cards and keys and will pay replacement fee, if the cards or keys become lost or stolen.
 - 9.3 Vendor shall notify Agency immediately of any lost, stolen, or missing card or key.
 - 9.4 Anyone performing under this Contract will be subject to Agency's security protocol and procedures.

REQUEST FOR QUOTATION
WVDOT BUILDING 5
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9.5 Vendor shall inform all staff of Agency's security protocol and procedures.

10 VENDOR DEFAULT:

10.1 The following shall be considered a vendor default under this Contract.

10.1.1 Failure to perform Contract Services in accordance with the requirements contained herein.

10.1.2 Failure to comply with other specifications and requirements contained herein.

10.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

10.1.4 Failure to remedy deficient performance upon request.

10.2 The following remedies shall be available to Agency upon default.

10.2.1 Immediate cancellation of the Contract.

10.2.2 Immediate cancellation of one or more release orders issued under this Contract.

10.2.3 Any other remedies available in law or equity.

11 MISCELLANEOUS:

11.1 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Summer Bailey
Telephone Number: 304-553-7526
Fax Number: 1-866-301-1761
Email Address: summer.bailey@pomeroy.com

**DOT Statewide Infrastructure Upgrade
Cabling Project - Cable Install Specifications
EXHIBIT A - EB5DOT**

1. DOT BUILDING 5 OFFICE - CHARLESTON

1.1. Work Area Scope of Work

- 1.1.1. Installation of seven hundred thirty (730) Cat 6A work area outlets for telecommunications usage extended to the Telecommunications Equipment Room (TER).
- 1.1.2. Each cable must be labeled per TIA/EIA-606-A administration standard.
- 1.1.3. Each drop must be terminated in a flush faceplate or surface mount box.
- 1.1.4. Each flush faceplate or surface mount box must be labeled per TIA/EIA-606-A. Administration Standard.
- 1.1.5. All cable installed in modular furniture must be enclosed in the wall or furniture pathways and spaces or duct and / or split loom must be used.
- 1.1.6. Each cable drop must be terminated 568B wiring configuration on a Cat.6A blue outlet unless designated otherwise.
- 1.1.7. One Cat 6A Patch cable shall be provided for each drop location. 75% of these cables shall be ten foot in length and 25% shall be fourteen foot in length for the station end drop location. In addition, 15 Cat 6A patch cables ten-foot-long shall be provided for spares.
- 1.1.8. Terminate spare lines on 6th floor, office 650, pull back and terminate 2 lines in 517, terminate two jacks on floor 4, pull back and terminate 2 lines in 650 (F19/F20), re-install 8 lines into furniture on 7th floor, affix surface mount boxes and relabel as necessary, pull back and coil existing lines (X4) in trough for future installation, pull back of remaining existing lines (X8) to center of room.
- 1.1.9. Install 2 lines from 2nd floor rack room to 1st floor to office of communications, install lines to location, install 2 lines from 2nd floor rack room to bldg. services office in basement, install two lines from rack room on 4th floor to 431, install lines into furniture, affixed surface mount boxes and terminate jacks, lines dressed in the rack rooms.
- 1.1.10. Terminate 2 jacks in 551 for printer, install 2 lines (134 ft.) to office install jacks and monument, reinstall lines into furniture and remounted surface mount boxes and re-terminate jacks on 7th floor, re-install lines into furniture in a317, install 2 lines to location in room 228, 175 ft., placed jacks and monument, install lines into rack room.
- 1.1.11. Install 2 lines to printer in print shop in basement, install 4 lines to 2 locations in office in print shop in basement, install two lines to stock room cubicle, and install lines into rack room.
- 1.1.12. Install 2 lines to a110 Paul Mattox office, terminate jacks, label and punch down on panel in 2nd floor rack room, 148 ft. per line, install 2 lines to printer in A550 traffic engineering, terminate jacks and labeled 268 ft. per line, install back lines in A650 in tray and install to printer location, identified two lines for installation in K. Huffman's office in A650, Install two lines 186ft. to A722 reception area for printer, install two lines to Ron Stanevich's office in A722 184ft., install lines into 7th floor rack room.
- 1.1.13. Install lines in A650 k. Huffman's office, terminate and label same, install lines into respective rack rooms through established routes dressed in cables and terminate on both ends, hung stick molding and surface mount boxes in print shop offices in basement, storage in basement, affixed jacks in print shop, labeled same, terminate 2 jacks in traffic control conference room: 5 sticks of molding, 3 molding install fittings, 14 cat 6a jacks, 4 decor style modular frames.

**DOT Statewide Infrastructure Upgrade
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EXHIBIT A - EB5DOT**

- 1.1.14. Review capacity issues in trough with DOT - WVOT staff, Make alterations to trough on Floor 3. Install two lines in Permitting office in furniture to printer in Susan Jackson's cubicle 105 ft. x 2, install two lines from traffic management 150 ft. x 2, and install two lines to A317 in Mike Epperly's cube to cube next door, 268 ft. X2.
 - 1.1.15. Removal of lines in 2nd floor east switch room, removed lines from 2nd floor and 1st floor switch rooms, install 1 line in furniture (114 ft. x1) to printer in cubicle in A356 (Permits), install 2 lines in furniture (130ft. X2) to printer in S. Jackson cube, install 2 lines in furniture to printer in cubicles in 350 (244ft. x2), Install 2 lines (138 x2) to printer in break room in 350, install 2 lines (128ft. x2) for fax in 356 to replace fax lines removed in demo.
 - 1.1.16. Install 6 lines in furniture (180 x2, 178 x2, and 158 x2) in Lisa Dunn cubicle set in 350, removed cable from work area.
 - 1.1.17. Install lines from chase way into 2nd floor rack room, dressed in cable and terminate on panels, terminate jacks, mount surface mount boxes, label all locations on both ends, install 25 pair from 2nd floor rack room to 2nd floor switch room, terminate on 66 block and patch panels to provide connectivity for new fax lines install in, began removal of cables from 3rd floor switch room.
 - 1.1.18. Install 25 pair from closets on 4 and 7 to rack rooms per DOT - WVOT staff, install lines in east closets between floors on 9,8,6 and 5 per R. Wickert, install 2 lines from 2nd floor rack room to 3rd floor for traffic management for future expansion Install lines from 9th floor and 8th floor to 7th floor, 6th and 5th floor to 4th floor, basement, 1st, 2nd lines to 3rd floor all on west wing electrical closets, install lines from basement, 1st 2nd floors to the 3rd floor, install additional line from 8th floor to 7th floor on east wing electrical closets, install 100 pair from 7th floor to 2nd floor.
 - 1.1.19. Mount 66 blocks and terminate lines in both closets on 9th, 8th, 7th, 6th, 5th Mount 66 blocks and terminate lines in both closets on 9th, 8th, 7th, 6th, 5th floors, terminate one end of existing 100 pair on floor 3 in west closet, dressed in cables and mounted D rings for attachment and support, labeled lines and blocks.
 - 1.1.20. Dress in Cat-6A lines on 5th floor east and west closets, mount brackets, d rings and 66 blocks, Dress in and punched down 25 pair to 24 port patch panel in 4th floor rack room, dressed in an punched down lines in 4th west elec. Closet from floors 6 and 5, punch down 24 pair out of 100 pair tie line from 7th to 2nd floors, dress in and punch down Cat-6A lines in 4th floor east electric closet from 6th and 5th floors, strip 66 block of existing wire for reuse, mounted brackets and 66 blocks, labeled lines, blocks.
 - 1.1.21. Dress in Cat-6A lines in 3rd floor east and west closets, strip 66 blocks of preexisting wires and mounted brackets and blocks, install d rings as necessary, terminate 25 pair of 100 pair tie line in east closet, re locate and terminate existing 100 pair east to west tie line to 66 blocks, terminate lines from basement 1st floor and second floor cat lines on 66 blocks, label lines and blocks and tie lines, dress in Cat-6A lines, in east and west closets, mounted brackets and d rings as necessary on floors 2, 1, and basement, punched down cat lines to 66 blocks, label lines and blocks.
- 1.2. Telecommunications Equipment Room (TER) Build Requirements**
- 1.2.1. All Building TER's should meet the ANSI/TIA/EIA-569-A standard.
 - 1.2.2. The 7th floor TER must be relocated to the newly constructed space on 8th floor.

**DOT Statewide Infrastructure Upgrade
Cabling Project - Cable Install Specifications
EXHIBIT A - EB5DOT**

- 1.2.3. The 8th floor TER must contain the relocated Telecommunications Main Grounding Busbar (TMGB) from the 7th floor which is bonded to the electrical service entrance ground and an earth ground. All Building TER's must have a Telecommunications Grounding Busbar (TGB) and adhere to the TIA/EIA -607 standard where each TGB is connected together with a backbone of insulated stranded (or solid) copper cable. This backbone is connected back to the TMGB in the Main TER.
- 1.2.4. 7th floor equipment/distribution racks must be removed and reinstalled in the newly constructed space on 8th floor with the relocated patch panels connected to the installed CAT 6A cable terminated in the TER and the amount of network equipment to be installed by the WVOT.
- 1.2.5. The 3 floor mount equipment/distribution racks must be secured at two points with one of the points being the solid floor.
- 1.2.6. The equipment/distribution rack must be grounded to the TER grounding Busbar.
- 1.2.7. The equipment/distribution rack must be installed with front and rear cable management for horizontal cables and patch cords.
- 1.2.8. Overhead ladder or basket cable tray shall be installed to accommodate cables entering the TER and slack loop management.
- 1.2.9. Each drop of Cat 6A cable extended to the designated Telecommunications Equipment Room (TER) must be terminated following TIA/EIA 568B standard using the T-568B pin/pair assignment on 12, 24 or 48 port patch panels.
- 1.2.10. Relocate the TrippLite UPS, with installed SNMP Card, to the 8th floor TER as was in line with the racks on 7th floor.

ATTACHMENT B - COST PAGE & MATERIALS LIST

WV State Department of Transportation HQ BLDG. 5

MATERIALS LIST Exhibit "B"

MANUFACTURER BRAND NAME and PART NUMBER	BRAND NAME of VENDORS ALTERNATE	PART NUMBER of VENDORS ALTERNATE	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED PRICE		
COMMSCOPE	CPCSSX2-0ZF010	Leviton	6210G-10L	Category 6A - Modular Patch Cable 10FT Blue - OR EQUAL	Each	520	\$ 14.79	7,690.80	
COMMSCOPE	CPCSSX2-0ZF014	Leviton	6210G-15L	Category 6A - Modular Patch Cable 14FT Blue - OR EQUAL	Each	210	\$ 18.40	3,864.00	
COMMSCOPE	760092452	Leviton	6110G-RL6	Category 6A U/UTP Info Outlet, blue - OR EQUAL	Each	730	\$ 9.72	7,095.60	
COMMSCOPE	107952442	Leviton	41089-4IP	M104 Type Surface Mount Box, four port ivory - OR EQUAL	Each	365	\$ 3.41	1,244.65	
COMMSCOPE	760118240	Leviton	41080-4IP	Faceplate 4-Hole w/blanks Modular Furniture - OR EQUAL	Each	365	\$ 1.36	496.40	
COMMSCOPE	760008888	Berk-Tek	BT10130484	ETL Verified Category 6A U/UTP Cable Plenum, 1000ft - OR EQUAL	Each	256	\$ 600.00	153,600.00	
COMMSCOPE	760103796	Leviton		BLUE ICON - 100 \ bag - OR EQUAL	Each	70	\$ -	0.00	
COMMSCOPE	760106880	Berk-Tek	BTLTP012AB0403	Commscope 12 Strand Fiber Singlemode I/O Plenum (12 SM) - OR EQUAL	Feet	500	\$ 0.56	280.00	
COMMSCOPE	760039867	Berk-Tek	TP5LS-24F	Commscope RS-24F-16SF RoloSplice Kit E/W 2x Fusion Splice Tray 1U Shelf - OR EQUAL	Each	4	\$ 46.05	184.20	
COMMSCOPE	FDWLCSC52	Berk-Tek	UPDCL-503	Commscope TeraSPEED® LC to SC, Fiber Patch Cord, 3.0 mm Duplex, Plenum All Lengths - OR EQUAL	Each	500	\$ 16.25	8,125.00	
TOTAL MATERIALS PRICE								182,580.65	
TOTAL INSTALATION PRICE								174,531.12	
LABOR RATE PER HOUR	Hourly Rate for Cable Installation - The hours shown are an estimate and not guaranteed. This rate is being included for evaluation purposes and represents the rate that will be used if a Change Order is required.				Each	10	\$ 37.50	375.00	
WV State Department of Transportation HQ BLDG. 5							Total Bid Price		357,111.77

***Total Installation Price includes misc materials not listed above.

Copy - Original can be provided upon award.

Agency WV Dept of Admini
REQ.P.O.#
RFQ# DOT1600000096

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, Pomeroy IT Solutions Sales Company, Inc.
of Hebron Kentucky, as Principal, and Fidelity & Deposit Company of
of Schaumburg Illinois, a corporation organized and existing under the laws of the State of Maryland
Maryland with its principal office in the City of Schaumburg, as Surety, are held and firmly bound unto the State
of West Virginia, as Obligee, in the penal sum of Five Percent of bid----- (\$ 5% of bid) for the payment of which,
well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the
Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for
Infrastructure Cable Telecommunications Distribution System

NOW THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

WITNESS, the following signatures and seals of Principal and Surety, executed and sealed by a proper officer of Principal and Surety, or by Principal individually if Principal is an individual, this 16th day of May, 20 16.

Principal Seal

Craig J. Probst
(Name of Principal)
By Craig J. Probst
(Must be President, Vice President, or
Duly Authorized Agent)
CFO
(Title)

Surety Seal

Fidelity & Deposit Company of Maryland
(Name of Surety)
Joseph M. Worrall
Attorney-in-Fact

IMPORTANT - Surety executing bonds must be licensed in West Virginia to transact surety insurance, must affix its seal, and must attach a power of attorney with its seal affixed.

Copy - original can be provided upon award.

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by THOMAS O. MCCLELLAN, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Jennifer GERHARDT, Candice J. VOGEL, William E. CARLIN, Joseph WORRALL, Debra K. POLLINO and Julie E. CHRISMAN, all of Cincinnati, Ohio, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 27th day of March, A.D. 2015.

ATTEST:

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



By: Eric D. Barnes
Secretary
Eric D. Barnes

Thomas O. McClellan
Vice President
Thomas O. McClellan

State of Maryland
County of Baltimore

On this 27th day of March, A.D. 2015, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski
Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015



EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,
this 16th day of July, 2014.



Geoffrey Delisio

Geoffrey Delisio, Vice President



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
1/26/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Hauser Group 8260 Northcreek Drive, Suite 200 Cincinnati OH 45236		CONTACT NAME: Michelle Davis	
		PHONE (A/C, No, Ext): 513-745-9200	FAX (A/C, No): 513-745-9219
		E-MAIL ADDRESS: mdavis@thehausergroup.com	
		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Great Northern Insurance Co.	NAIC # 20303
		INSURER B: Federal Insurance Company	20281
		INSURER C: Columbia Casualty Company	31127
		INSURER D: Valley Forge Insurance Co.	20508
		INSURER E: Continental Insurance Co.	35289
		INSURER F:	

INSURED POMER-1
Pomeroy IT Solutions Sales Company, Inc.
1020 Petersburg Road
Hebron KY 41048

COVERAGES **CERTIFICATE NUMBER:** 681259008 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			38033892	1/18/2016	1/31/2017	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			73591878	1/18/2016	1/31/2017	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			78894108	1/18/2016	1/31/2017	EACH OCCURRENCE \$25,000,000 AGGREGATE \$25,000,000 \$
D E D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	N/A	5099732395 6023661819 6023661836	1/18/2016 1/18/2016 1/18/2016	1/31/2017 1/31/2017 1/31/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Technology E&O			596650123	1/18/2016	1/31/2017	Limit \$10,000,000 Retention \$250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
State of West Virginia is included as additional insured with respect to general liability coverage as evidenced herein as required by written contract.

CERTIFICATE HOLDER

CANCELLATION

State of West Virginia
Dept of Administration, Purchasing Division
2019 Washington Street East, Bldg 15
Charleston WV 25325

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

J.M. Worrall

Building Industry Consulting Service International

THE PROFESSIONAL DESIGNATION OF

**REGISTERED COMMUNICATIONS
DISTRIBUTION DESIGNER®**

IS AWARDED TO

Kent L Reed

by BICSI in recognition of having successfully completed BICSI's registration and examination requirements.

Designation Number:



Registration Start Date: 1/1/2015

Registration End Date: 12/31/2017



Bicsi
RCDD
Since
6/10/1996

Chair, Registrations & Credentials Supervision Committee

Director of Credentialing

CONTRACTOR LICENSE

Authorized by the
West Virginia Contractor Licensing Board

Number: WV034855

Classification:
SPECIALTY
LOW VOLTAGE SYSTEMS

POMEROY IT SOLUTIONS SALES COM INC
DBA POMEROY IT SOLUTIONS SALES COM INC
500 WESTMORELAND OFFICE PARK
DUNBAR, WV 25064


Date Issued

JUNE 07, 2016

Expiration Date

JUNE 07, 2017


Authorized Company Signature


Chair, West Virginia Contractor
Licensing Board

**WEST VIRGINIA
CONTRACTOR
LICENSING
BOARD**

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.





State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5

STATE OF WEST VIRGINIA,
COUNTY OF Kanawha, TO-WIT:

I, Summer Bailey, after being first duly sworn, depose and state as follows:

1. I am an employee of Pomeroy IT Solutions Sales Co.
(Company Name); and,
2. I do hereby attest that Pomeroy IT Solutions Sales Co.
(Company Name)

maintains a written plan for a drug-free workplace policy and that such plan and policy are in compliance with **West Virginia Code §21-1D**.

The above statements are sworn to under the penalty of perjury.

Printed Name: Summer Bailey
 Signature: Summer Bailey
 Title: Technology Solutions Executive
 Company Name: Pomeroy IT Solutions Sales Co.
 Date: 05/27/2016

Taken, subscribed and sworn to before me this 27 day of May, 2016.

By Commission expires October 26, 2020

(Seal)



[Signature]
(Notary Public)

THIS AFFIDAVIT MUST BE SUBMITTED WITH THE BID IN ORDER TO COMPLY WITH WV CODE PROVISIONS. FAILURE TO INCLUDE THE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF THE BID.

State of West Virginia
Purchasing Division

CERTIFIED DRUG-FREE WORKPLACE REPORT COVERSHEET

In accordance with *West Virginia Code* § 21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. That report must include each of the items identified below in the Required Report Content section.

Instructions: Vendor should complete this coversheet, attach it to the required report, and submit it to the appropriate location as follows: For contracts more than \$25,000, the report should be mailed to the West Virginia Purchasing Division at 2019 Washington Street East, Charleston, WV 25305. For contracts of \$25,000 or less, the vendor should mail the report to the public authority issuing the contract.

Contract Identification:

Contract Number: DOT1600000096

Contract Purpose: Infrastructure Cable Telecommunications Distribution System

Agency Requesting Work: Pomeroy IT Solutions Sales Co.

Required Report Content: The attached report must include each of the items listed below. The vendor should check each box as an indication that the required information has been included in the attached report.

- Information indicating the education and training service to the requirements of *West Virginia Code* § 21-1D-5 was provided;
- Name of the laboratory certified by the United States Department of Health and Human Services or its successor that performs the drug tests;
- Average number of employees in connection with the construction on the public improvement;
- Drug test results for the following categories including the number of positive tests and the number of negative tests: (A) Pre-employment and new hires; (B) Reasonable suspicion; (C) Post-accident; and (D) Random.

Vendor Contact Information:

Vendor Name: Pomeroy IT Solutions

Vendor Address: 1020 Petersburg Road
Hebbron, Ky 41048

Vendor Telephone: ⁽⁸⁵⁹⁾ 657-2100

Vendor Fax: 1-866-443-2703

Vendor E-Mail: Rebecca.Houston@Pomeroy.com



State of West Virginia
PURCHASING DIVISION
Construction Bid Submission Review Form

This list has been provided for informational purposes only and is not to be construed as a complete list of request for quotation or bidding requirements for any individual construction project. This list does not and cannot include every item, mistake or oversight that could cause a contractor's bid to be disqualified. Rather, this list is intended to draw attention to some of the most common problems that the Purchasing Division encounters in the bidding process for construction projects. All potential bidders must read the request for quotation, all additional documents, and all instructions relating thereto ("Bid Documents") in their entirety to identify the actual request for quotation and bidding requirements. Failure to read the Bid Documents in their entirety and comply with the stated requirements contained therein may result in bid disqualification.

Errors That Shall Be Reason for Immediate Bid Disqualification

1. Failure to attend a mandatory pre-bid meeting
2. Failure to sign the bid
3. Failure to supply West Virginia contractor's license # on bid
4. Failure to supply a signed drug free workplace affidavit with the bid
5. Failure to supply a valid bid bond or other surety approved by the State of West Virginia
6. Failure to meet any mandatory requirement of the RFQ
7. Failure to acknowledge receipt of Addenda (only if stipulated as mandatory)
8. Failure to submit bid prior to the bid opening date and time
9. Federal debarment
10. State of West Virginia debarment or suspension

**Errors that May Be Reason for Bid Disqualification
Before Contract Award**

1. Uncontested debt to the State exceeding \$1,000.00 (must be cured prior to award)
2. Workers' Compensation or Unemployment Compensation delinquency (must be cured prior to award)
3. Not registered as a vendor with the State (must be cured prior to award)
4. Failure to obtain required bonds and/or insurance
5. Failure to provide the sub-contractor listing within 1 business day of bid opening.
6. Failure to use the provided RFQ form (only if stipulated as mandatory).

AGREEMENT ADDENDUM

In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **DISPUTES** - Any references in the agreement to arbitration or to the jurisdiction of any court are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.
2. **HOLD HARMLESS** - Any provision requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.
3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.
4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.
5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.
6. **INTEREST** - Any provision for interest or charges on late payments is deleted. The Agency has no statutory authority to pay interest or late fees.
7. **NO WAIVER** - Any language in the agreement requiring the Agency to waive any rights, claims or defenses is hereby deleted.
8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.
9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.
10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.
11. **FEES OR COSTS** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.
12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.
13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages to a certain dollar amount or to the amount of the agreement is hereby deleted. Limitations on special, incidental or consequential damages are acceptable. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.
14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor. Agency agrees to pay Vendor for services rendered or goods received prior to the effective date of termination.
15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.
16. **RENEWAL** - Any reference to automatic renewal is deleted. The agreement may be renewed only upon mutual written agreement of the parties.
17. **INSURANCE** - Any provision requiring the Agency to purchase insurance for Vendor's property is deleted. The State of West Virginia is insured through the Board of Risk and Insurance Management, and will provide a certificate of property insurance upon request.
18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.
19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.
20. **CONFIDENTIALITY** - Any provision regarding confidentiality of the terms and conditions of the agreement is hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act.
21. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:

STATE OF WEST VIRGINIA

Spending Unit: _____

Signed: _____

Title: _____

Date: _____

VENDOR

Company Name: Pomeroy

Signed: Summer Bailey

Title: Technology Solutions Exe.

Date: 05/27/2016

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 Vendor Preference, if applicable.

1. **Application is made for 2.5% 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;
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; 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% 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% vendor preference for the reason checked:**
 Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; or,
4. **Application is made for 5% 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% 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% 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.
7. **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with *West Virginia Code* §5A-3-59 and *West Virginia Code of State Rules*.**
 Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

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) rescind the contract or purchase order; 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.

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: Pomeroy IT Solutions Sales Co.

Signed: Connie White

Date: 05/27/2016

Title: Project Assistant

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. 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.

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.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"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 exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Pomeroy IT Solutions Sales Co.

Authorized Signature: Connie White Date: 05/27/2016

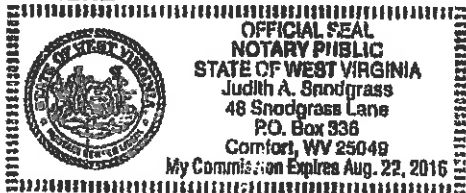
State of West Virginia

County of Marshall, to-wit:

Taken, subscribed, and sworn to before me this 27 day of May, 2016

My Commission expires Aug 22, 2016

AFFIX SEAL HERE



NOTARY PUBLIC

Judith A. Snodgrass
Purchasing Affidavit (Revised 08/01/2015)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFO DOT160000096

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input checked="" type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input checked="" type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that 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.

Pomeroy IT Solutions Sales Co.
Company

Summer Bailey
Authorized Signature

05/27/2016
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT B - COST PAGE & MATERIALS LIST

WV State Department of Transportation HQ BLDG. 5

MATERIALS LIST Exhibit "B"

MANUFACTURER BRAND NAME and PART NUMBER	BRAND NAME of VENDORS ALTERNATE	PART NUMBER of VENDORS ALTERNATE	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED PRICE		
COMMSCOPE	CPCSSX2-0ZF010	Leviton	6210G-10L	Category 6A - Modular Patch Cable 10FT Blue - OR EQUAL	Each	520	\$ 14.79	7,690.80	
COMMSCOPE	CPCSSX2-0ZF014	Leviton	6210G-15L	Category 6A - Modular Patch Cable 14FT Blue - OR EQUAL	Each	210	\$ 18.40	3,864.00	
COMMSCOPE	760092452	Leviton	6110G-RL6	Category 6A U/UTP Info Outlet, blue - OR EQUAL	Each	730	\$ 9.72	7,095.60	
COMMSCOPE	107952442	Leviton	41089-4IP	M104 Type Surface Mount Box, four port ivory - OR EQUAL	Each	365	\$ 3.41	1,244.65	
COMMSCOPE	760118240	Leviton	41080-4IP	Faceplate 4-Hole w/blanks Modular Furniture - OR EQUAL	Each	365	\$ 1.36	496.40	
COMMSCOPE	760008888	Berk-Tek	BT10130484	ETL Verified Category 6A U/UTP Cable Plenum, 1000ft - OR EQUAL	Each	256	\$ 600.00	153,600.00	
COMMSCOPE	760103796	Leviton		BLUE ICON - 100 \ bag - OR EQUAL	Each	70	\$ -	0.00	
COMMSCOPE	760106880	Berk-Tek	BTLTP012A90403	Commscope 12 Strand Fiber Singlemode I/O Plenum (12 SM) - OR EQUAL	Feet	500	\$ 0.56	280.00	
COMMSCOPE	760039867	Berk-Tek	TP5LS-24F	Commscope RS-24F-16SF RoloSplice Kit E/W 2x Fusion Splice Tray 1U Shelf - OR EQUAL	Each	4	\$ 46.05	184.20	
COMMSCOPE	FDWLCSC52	Berk-Tek	UPDCL-S03	Commscope TeraSPEED® LC to SC, Fiber Patch Cord, 3.0 mm Duplex, Plenum All Lengths - OR EQUAL	Each	500	\$ 16.25	8,125.00	
TOTAL MATERIALS PRICE								182,580.65	
TOTAL INSTALLATION PRICE								174,531.12	
LABOR RATE PER HOUR	Hourly Rate for Cable Instalation - The hours shown are an estimate and not guaranteed. This rate is being included for evaluation purposes and represents the rate that will be used if a Change Order is required.				Each	10	\$ 37.50	375.00	
WV State Department of Transportation HQ BLDG. 5							Total Bid Price		357,111.77

***Total Installation Price Includes misc materials not listed above.

Warranty documentation provided.

LIMITED LIFETIME SYSTEM WARRANTY STATEMENT

Subject to the limitations and conditions set forth herein, Berk-Tek and Leviton (the "Manufacturers") warrant to the end-user that the structured cabling and connectivity hardware products (the "Products") comprising the Berk-Tek Leviton structured cabling system (the "System") installed at the indicated project site will:

- Be free from defects in material or manufacturing workmanship for the life of the System.
- Meet or exceed applicable ratified TIA/EIA and ISO/IEC link/channel transmission performance standards in effect at the time of installation.
- Support any current or future application which is designed for transmission over a structured cabling system as defined by the above referenced standards in effect at the time of installation.

Warranty Exclusions

- Products used in the System which were not specifically designated as being eligible for coverage under this warranty.
- Products used in the System which were not supplied directly by the Manufacturers or through channels approved by the Manufacturers.
- Products used in the System which were falsely or incorrectly represented as being in compliance with the warranty registration requirements of this warranty, or were not included in the registration documents that were submitted to obtain coverage under this warranty.
- Defects resulting from non-Berk-Tek Leviton work area, patching or equipment cords, or from moves, additions, and changes by parties other than a Certified Integrator / Installer, or an authorized contractor of the Manufacturers, or Manufacturers authorized personnel.
- Defects resulting from non-compliant or improper System design, installation, use, repair or System alterations, misuse, neglect, accident or abuse.
- Defects or System failures caused by events beyond reasonable control of the Manufacturers including, without limitation, act or omissions of customer, acts of God or government, natural disasters or storms, fire, flood, water damage, paint or chemical exposure, political strife, labor disputes, failure or delay of transportation, or unavailability of parts or personnel.

Warranty Remedy

- For valid warranty claims, the Manufacturers will, at their option, using a Certified Integrator / Installer or an authorized contractor or personnel of the Manufacturers choosing replace, repair, or provide credit for any qualified System products found to be non-compliant and cover reasonable costs of labor to effect necessary work.

Warranty Limitations

- **THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, OR STATUTORY, INCLUDING, BUT NOT BY WAY OF LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, NON-INFRINGEMENT OR ANY OTHER MATTER. THE REMEDIES PROVIDED FOR IN THE PRECEDING PARAGRAPHS SHALL CONSTITUTE THE SOLE RECOURSE OF END-USER AGAINST THE MANUFACTURERS FOR BREACH OF ANY OBLIGATIONS TO END-USER, WHETHER THE CLAIM IS MADE IN TORT OR IN CONTRACT, INCLUDING CLAIMS BASED ON WARRANTY, NEGLIGENCE, STRICT LIABILITY, FRAUD, MISREPRESENTATION, OR OTHERWISE.**
- In no event shall Manufacturers be liable for special, indirect, incidental or consequential damages (regardless of the form of action, whether in contract or in tort, including negligence), including without limitation, lost profits, lost data, System downtime, System outages, loss of use of the System or economic damage arising out of the failure of the System or the Products that form part of the System. The maximum aggregate liability of the Manufacturers for any claims for damage arising out of or connected with this warranty of the manufacture, sale, delivery, installation or use of the Products shall not exceed the price paid for the Products giving rise to a claim.
- This warranty is non-transferable and shall not benefit any party or parties other than the stated System end-user, and is subject to the individual Product warranty Terms & Conditions of each Manufacturer.
- This warranty does not cover Systems which are no longer in use or which are no longer used for their originally intended purpose.

Warranty Claims

- Proper System design, installation, use and maintenance must be demonstrated to the Manufacturers.
- System documentation and maintenance records, all of which are the responsibility of the end-user, must be made available upon request.
- End-user shall provide free access to the System to original Certified Integrator/Installer, and the Manufacturers authorized personnel.

Claim Procedure

- Prior to making a claim, and for the claim to be valid, the end-user must first resolve all non-connectivity hardware and non-cable related causes.
- Warranty claims shall initially, and promptly be made to the original Certified Integrator / Installer or the local representative of one of the Manufacturers.
- System repair or replacement due to component failure will be performed only after the Manufacturers have reviewed and verified the System prior to removal, replacement, or repair of any defective System Products.
- Any disputes under this warranty shall be subject to the jurisdiction of the courts of the State of New York and the federal courts therein, regardless of the location of the installation.

eXtreme® Cat 6A Standard Patch Cords

APPLICATION

eXtreme Cat 6A Standard Patch Cords exceed all channel performance requirements in ANSI/TIA-568-C.2 from 1 MHz to 500 MHz to support the IEEE 802.3an standard for 10 Gigabit Ethernet over UTP cable. eXtreme Cat 6A Patch Cords are designed for use in high-bandwidth applications such as 10 Gigabit Ethernet.



SPECIFICATION

Cat 6A patch cords shall meet or exceed requirements for Cat 6A channel performance described in ANSI/TIA-568-C.2. The patch cord shall be a stranded conductor with a standard, 8-position modular plug on each end. The cords shall be available in 3-, 5-, 7-, and 10-foot lengths. The manufacturer shall provide a one-year limited product warranty. The manufacturer shall also provide a lifetime warranty against defects in material and workmanship, and an application guarantee when installed as part of a certified system.

FEATURES

- F/UTP stranded construction provides exceptional alien crosstalk (AXT) suppression in Cat 6A channel
- Stranded conductors ensure adequate life and long-term channel integrity
- Color-matched cords and boots
- Available in four different ANSI/TIA-606-A compatible colors
- Available in four standard lengths (custom lengths available)

STANDARDS COMPLIANCE

- ANSI/TIA-568-C.2
- ISO/IEC 11801 Class E_A
- cULus Listed
- ANSI/TIA-1096-A
- IEEE 802.3at Type 1 and 2
- Draft IEEE 802.3bt/D1.2 (Type 3)
- Cisco UPoE (60W)
- Draft IEEE 802.3bt/D1.2 (Type 4) - maximum bundle size of 100 cords
- Power over HDBaseT (PoH) - maximum bundle size of 100 cords

PHYSICAL SPECIFICATIONS

Dimensions: See page two
Materials: 26-gauge, F/UTP stranded conductor, modular non-keyed, 8-position, 8-conductor plug, 94V-0 rated
Color: White, blue, grey, red
(color matched, strain-relief boots)

COUNTRY OF ORIGIN

Taiwan

WARRANTY INFORMATION

For a copy of Leviton product warranties, visit www.leviton.com/warranty.

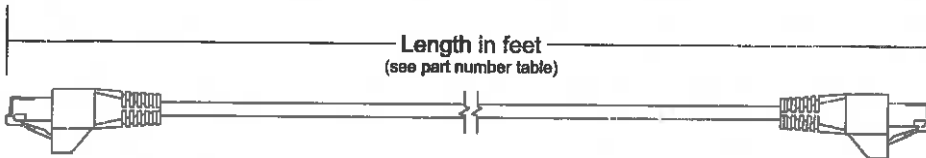
6210G-XXX

PRODUCT SPECIFICATIONS
6210G-xxx



ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.



6210G-xxx

PART NUMBERS

Description	Part No.
eXtreme® Cat 6A Standard Patch Cord, white, 3-foot length (0.9 m)	6210G-03W
eXtreme Cat 6A Standard Patch Cord, blue, 3-foot length (0.9 m)	6210G-03L
eXtreme Cat 6A Standard Patch Cord, grey, 3-foot length (0.9 m)	6210G-03S
eXtreme Cat 6A Standard Patch Cord, red, 3-foot length (0.9 m)	6210G-03R
eXtreme Cat 6A Standard Patch Cord, white, 5-foot length (1.5 m)	6210G-05W
eXtreme Cat 6A Standard Patch Cord, blue, 5-foot length (1.5 m)	6210G-05L
eXtreme Cat 6A Standard Patch Cord, grey, 5-foot length (1.5 m)	6210G-05S
eXtreme Cat 6A Standard Patch Cord, red, 5-foot length (1.5 m)	6210G-05R
eXtreme Cat 6A Standard Patch Cord, white, 7-foot length (2.1 m)	6210G-07W
eXtreme Cat 6A Standard Patch Cord, blue, 7-foot length (2.1 m)	6210G-07L
eXtreme Cat 6A Standard Patch Cord, grey, 7-foot length (2.1 m)	6210G-07S
eXtreme Cat 6A Standard Patch Cord, red, 7-foot length (2.1 m)	6210G-07R
eXtreme Cat 6A Standard Patch Cord, white, 10-foot length (3.0 m)	6210G-10W
eXtreme Cat 6A Standard Patch Cord, blue, 10-foot length (3.0 m)	6210G-10L
eXtreme Cat 6A Standard Patch Cord, grey, 10-foot length (3.0 m)	6210G-10S
eXtreme Cat 6A Standard Patch Cord, red, 10-foot length (3.0 m)	6210G-10R



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C16 6100

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	Europe T +33.6.8869.1380 E infoeurope@leviton.com	India / SAARC T +971.4.886.4722 E infoindia@leviton.com	Mexico T +52.55.5082.1040 E lsamarketing@leviton.com	Middle East & Africa T +971.4.886.4722 E lmeinfo@leviton.com	South Korea T +82.2.3273.9863 E infokorea@leviton.com

eXtreme® Cat 6A Channel-Rated QuickPort® Connector

APPLICATION

The eXtreme Cat 6A Channel-Rated QuickPort Connector exceeds all channel performance requirements in ANSI/TIA-568-C.2 and ISO/IEC Class E_A from 1 MHz to 500 MHz to support the IEEE 802.3an standard for 10 Gigabit Ethernet over UTP Cable. The connector is designed to be used with all QuickPort compatible products and features patented injection-molded Cone of Silence® covers to eliminate alien crosstalk (AXT). The connector includes patented Retention Force Technology to promote consistent network performance over the life of the system. Unique Pair Separation Towers facilitate quick, easy terminations. The connector is configured in a 180-degree configuration such that the punch down field is in the back, allowing for rear termination.



FEATURES

- Cat 6A/Class E_A Channel Performance
- Patented Retention Force Technology (RFT) protects against tine damage from 4- or 6-pin plugs
- Alien crosstalk suppressed by Cone of Silence, metalized body, and new printed circuit board
- Pair Separation Tower (PST) design facilitates separation of Cat 6A conductors
- Patented, dual-layer wiring label simplifies punchdown and reduces rework

DESIGN CONSIDERATIONS

- Use in any QuickPort housing to support Cat 6A UTP connectivity in surface-mount, flush-mount, or modular-furniture outlets and field-configurable panels
- Can be used in conjunction with other QuickPort snap-in modules for voice/data/video applications over UTP, coax, fiber
- To identify ports, use different colored modules for each application (full selection of ANSI/TIA-606 compatible colors - 13 available)

COUNTRY OF ORIGIN USA

SPECIFICATION

The connector shall meet or exceed the requirements for Category 6A channel-level performance described in ANSI/TIA-568-C.2 and ISO/IEC Class E_A. The modular connector shall be snap-in style. The connector shall also be in compliance with all National Electrical codes; compliant with ANSI/TIA-1096-A; UL Listed; and independently verified. In addition to Cat 6A compliance, the connector shall have the ability to support high-megabit and shared-sheath applications. All plastics used in construction of connector bodies shall be fire retardant with a UL flammability rating of 94V-0. All terminations shall use 110-type insulation displacement connectors (IDC). The connector shall provide a ledge directly adjacent to the 110-style termination against which 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 connector shall include an alien crosstalk attenuation cover (Cone of Silence) to protect the termination field from induced noise from adjacent connectors. The modular connector shall fit all other installed telecommunications wallplates, outlets, field-configurable patch panels, and patch blocks. Available in 13 ANSI/TIA-606 compatible colors.

STANDARDS COMPLIANCE

- ANSI/TIA-568-C.2
- ISO/IEC 11801 Class E_A
- IEEE 802.3an 10GBASE-T
- cULus Listed
- ANSI/TIA-1096-A (formerly FCC Part 68)
- IEEE 802.3at (Type 1) Power over Ethernet (PoE) applications up to 15.4 watts
- IEEE 802.3at (Type 2) Power over Ethernet (PoE+) applications up to 30 watts
- IEEE 802.3bt/D1.7 (Type 3) Power over Ethernet (PoE+) applications up to 60 watts
- IEEE 802.3bt/D1.7 (Type 4) Power over Ethernet (PoE+) applications up to 100 watts
- Cisco Universal Power Over Ethernet (UPOE) applications up to 60 watts
- Power over HDBaseT™ (POH) applications up to 100 watts

PHYSICAL SPECIFICATIONS

Dimensions: See page two
 Materials: **Connector Body:** High-impact, fire-retardant plastic rated UL 94V-0
Spring Wire Contacts: High-quality, copper-based alloy, plated with 50 micro-inches of gold for lowest contact resistance and maximum life

Page 1 of 2

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PRODUCT SPECIFICATIONS
6110G-R*6

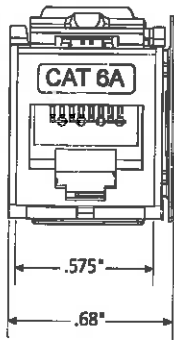


WARRANTY INFORMATION

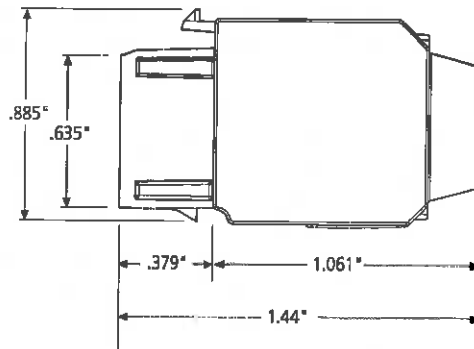
For a copy of Leviton product warranties, visit www.leviton.com/warranty.

ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.



Connector with Cone of Silence
Front View



Connector with Cone of Silence
Side View

6110G-R*6

PART NUMBERS	
Description	Part No.
eXtreme® Cat 6A Channel-Rated QuickPort® Connector, white	6110G-RW6
eXtreme Cat 6A Channel-Rated QuickPort Connector, light almond	6110G-RT6
eXtreme Cat 6A Channel-Rated QuickPort Connector, ivory	6110G-RI6
eXtreme Cat 6A Channel-Rated QuickPort Connector, yellow	6110G-RY6
eXtreme Cat 6A Channel-Rated QuickPort Connector, orange	6110G-RO6
eXtreme Cat 6A Channel-Rated QuickPort Connector, crimson	6110G-RC6
eXtreme Cat 6A Channel-Rated QuickPort Connector, dark red	6110G-RR6
eXtreme Cat 6A Channel-Rated QuickPort Connector, purple	6110G-RP6
eXtreme Cat 6A Channel-Rated QuickPort Connector, blue	6110G-RL6
eXtreme Cat 6A Channel-Rated QuickPort Connector, green	6110G-RV6
eXtreme Cat 6A Channel-Rated QuickPort Connector, grey	6110G-RG6
eXtreme Cat 6A Channel-Rated QuickPort Connector, black	6110G-RE6
eXtreme Cat 6A Channel-Rated QuickPort Connector, brown	6110G-RB6

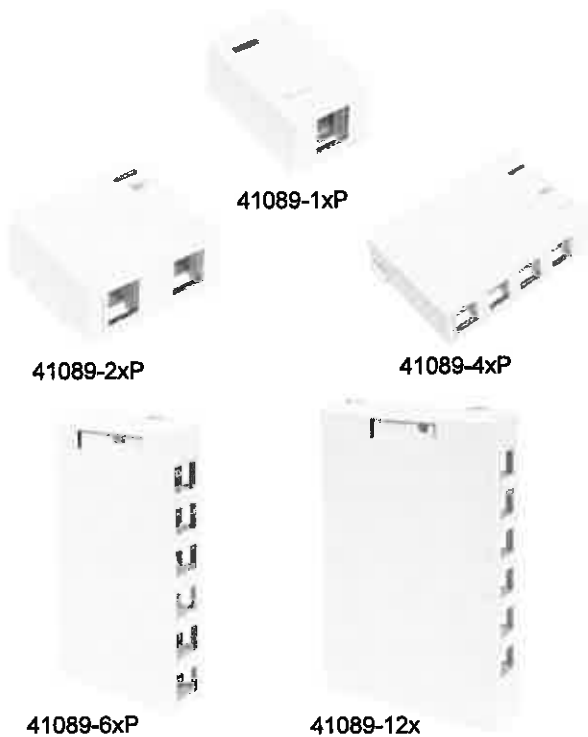


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Surface-Mount QuickPort® Boxes

APPLICATION

The compact surface-mount box accepts QuickPort snap-in connectors. The box supports voice/data applications in office, retrofit, or other surface-mount environments. It includes an ID window, mounting screws, and adhesive, and is available in four colors: white, ivory, grey, and black.



SPECIFICATION

The surface-mount box shall be small and low profile to accept up to twelve field-configurable QuickPort connectors. Base shall include cable anchor points. Mounting methods shall include screws, pressure sensitive adhesive, and magnets. Cover shall include an identification window, which also hides a user-provided #6 x 1/2-inch security screw. Construction shall be of high-impact fire-retardant plastic rated UL 94V-0. Box shall be cULus listed and compliant with ANSI/TIA-568-C. One and two-port housings shall comply with UL 2043 as suitable for use in air handling spaces per NEC 300-22(b)(c).

Page 1 of 2

FEATURES

- One and two-port housings are suitable for installation in air handling spaces (plenum)
- User-provided cover screw can be installed for additional security
- Compatible with all individual QuickPort modules
- Connector module can be pre-terminated prior to snapping into housing port
- 1-port blank included to close off unused port for 2-port box
- Designation label provided for identification purposes
- Includes two self-tapping screws and pressure-sensitive adhesive

DESIGN CONSIDERATIONS

- Bottom, side, or rear cable entry options (rear cable entry recommended to help meet cable bend radius standards)
- Accepts magnet (41030-SMJ) for mounting on steel surfaces
- Allows the use of different colored connectors for different applications to identify ports, 13 ANSI/TIA-606-B compatible connector colors available
- The 4-port box has mounting holes that are compatible with NEMA electrical boxes, covering the wall opening when mounted to single-gang NEMA boxes

STANDARDS COMPLIANCE

ANSI/TIA-568-C
 RoHS compliant
 cULus 1863, 2043

PHYSICAL SPECIFICATIONS

Dimensions: See page two
 Materials: High-impact, fire-retardant plastic rated UL 94V-0
 Mounting: Screws (included), pressure-sensitive adhesive (included), or magnet (sold separately)

COUNTRY OF ORIGIN

Mexico

WARRANTY INFORMATION

For a copy of Leviton product warranties, visit www.leviton.com/warranty.

41089-1xP, 41089-2xP, 41089-4xP, 41089-6xP, 41089-12x

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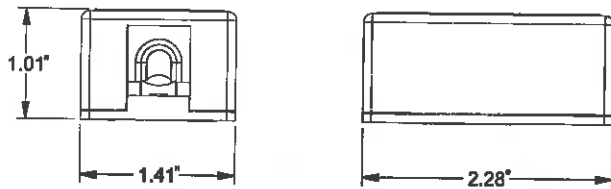
PRODUCT SPECIFICATIONS
41089-1xP, 41089-2xP, 41089-4xP, 41089-6xP, 41089-12x



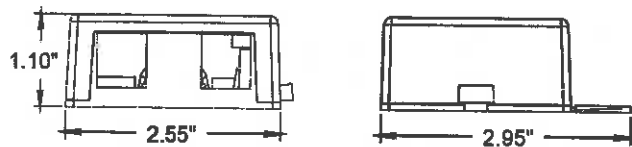
ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.

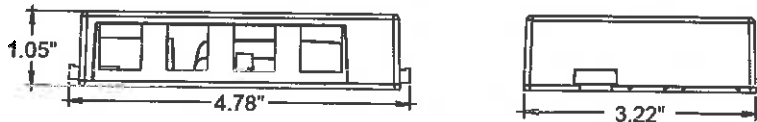
41089-1xP



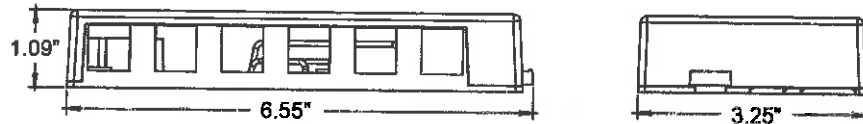
41089-2xP



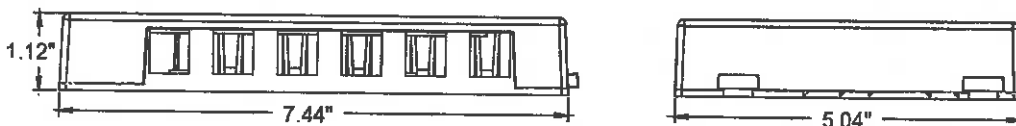
41089-4xP



41089-6xP



41089-12x



41089-1xP, 41089-2xP, 41089-4xP, 41089-6xP, 41089-12x

PART NUMBERS

Description	WHITE	IVORY	GREY	BLACK
Surface-Mount QuickPort® Box, 1 Port	41089-1WP	41089-1IP	41089-1GP	41089-1EP
Surface-Mount QuickPort Box, 2 Ports	41089-2WP	41089-2IP	41089-2GP	41089-2EP
Surface-Mount QuickPort Box, 4 Ports	41089-4WP	41089-4IP	41089-4GP	41089-4EP
Surface-Mount QuickPort Box, 6 Ports	41089-6WP	41089-6IP	41089-6GP	41089-6EP
Surface-Mount QuickPort Box, 12 Ports	41089-12W	41089-12I	41089-12G	41089-12E

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Single-Gang QuickPort® Wallplates

APPLICATION

Single-Gang QuickPort Wallplates accept QuickPort connectors to support multimedia applications with 1, 2, 3, 4, or 6 ports. Use where a one-piece, single-gang, economical flush-mount housing is desired. Available in six colors (white, light almond, ivory, grey, brown, and black) with color-matched screws.



SPECIFICATION

The wallplate housing shall be a one-piece, single-gang flush-mount style that fits standard NEMA openings, or four-square boxes with reducer. It should provide 1, 2, 3, 4, or 6 ports. Must be able to accept all Leviton QuickPort connectors. It must be made of high-impact, fire-retardant plastic rated UL 94V-0, and be cULus Listed, and compliant with ANSI/TIA-568-C.0 specifications. The wallplate shall accommodate low-voltage box eliminators for a flush mount.

FEATURES

- Color-matched wallplate screws
- Fits within minimum rectangular NEMA openings and accommodates low-voltage box eliminators for a flush mount
- Compatible with all individual QuickPort connectors
- Individual port configurability allows specification flexibility
- Narrow module width allows high port density in a small area

DESIGN CONSIDERATIONS

- Fits single-gang back boxes, or four-square boxes with appropriate user-provided reducer
- Put blanks in unused ports for future expansion
- Specify port identification method (colored modules, designation labels, and custom silk-screening available/to identify ports, use different colored connectors for each application or Leviton pre-printed Port Designation Labels (41080-LEB)

STANDARDS COMPLIANCE

- cULus Listed (UL 1863 & CAN/CSA-C22.2 No. 182.4)
- ANSI/TIA-568-C.0

PHYSICAL SPECIFICATIONS

- Dimensions: See page two
Materials: High-impact, durable, fire-retardant plastic rated UL 94V-0
Capacity: Available in 1-, 2-, 3-, 4-, and 6-port versions
Mounting: Color-matched screws

COUNTRY OF ORIGIN

USA

WARRANTY INFORMATION

For a copy of Leviton product warranties, visit www.leviton.com/warranty.

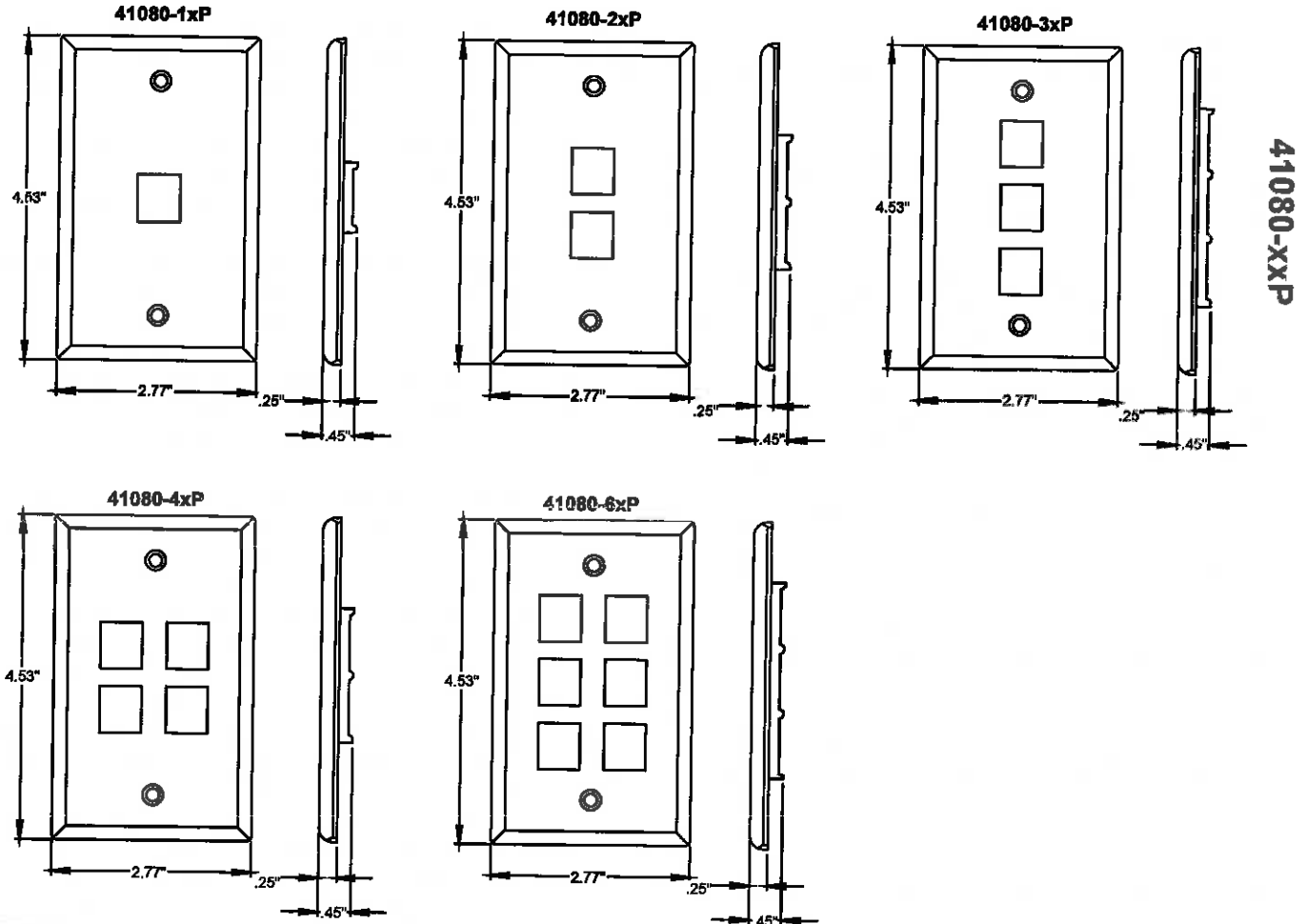
41080-xxP

PRODUCT SPECIFICATIONS
41080-xxP



ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.



PART NUMBERS						
Description	WHITE	LT. ALMOND	IVORY	GREY	BROWN	BLACK
Single-Gang QuickPort® Wallplate, 1 Port	41080-1WP	41080-1TP	41080-1IP	41080-1GP	41080-1BP	41080-1EP
Single-Gang QuickPort Wallplate, 2 Ports	41080-2WP	41080-2TP	41080-2IP	41080-2GP	41080-2BP	41080-2EP
Single-Gang QuickPort Wallplate, 3 Ports	41080-3WP	41080-3TP	41080-3IP	41080-3GP	41080-3BP	41080-3EP
Single-Gang QuickPort Wallplate, 4 Ports	41080-4WP	41080-4TP	41080-4IP	41080-4GP	41080-4BP	41080-4EP
Single-Gang QuickPort Wallplate, 6 Ports	41080-6WP	41080-6TP	41080-6IP	41080-6GP	41080-6BP	41080-6EP



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	Europe T +33.6.8869.1380 E info@europe@leviton.com	India / SAARC T +971.4.886.4722 E info@india@leviton.com	Mexico T +52.55.5082.1040 E info@marketing@leviton.com	Middle East & Africa T +971.4.886.4722 E info@mea@leviton.com	South Korea T +82.2.3273.9863 E info@korea@leviton.com

LANmark-10G2 Plenum UTP

LANmark™-10G2 is a true multi-media cable, designed to handle the convergence of voice, video and data at 10 gigabit Ethernet speeds, simplifying even the most dynamic network. The 10G2 is a breakthrough in cable technology, with a patented design guaranteed to minimize alien crosstalk while maintaining a small outside diameter.

Description

Berk-Tek LANmark-10G2, Performance Guaranteed

Before any cable can display the Berk-Tek LANmark-10G2 legend, it must pass factory tests with a *minimum of 2dB of margin for NEXT & PSNEXT and 4dB of margin for ACRF & PSACRF beyond the CAT 6A standard*. If the margin is missing, so is the legend. That is our guarantee to you.

Your business demands continuous performance from your IT network, so our specifications aren't simply numbers on the page. They define the way that we do business. This means that you are *guaranteed* industry-leading performance and quality for all Berk-Tek products.

Some other manufacturers talk about "typical" values, but at Berk-Tek, we hold ourselves to a higher standard. We won't talk about typicals, we talk about what is true, guaranteed, and independently verified.

Based on Berk-Tek's advanced testing, LANmark-10G2 has a Converged Application Score (CA Score) of 7.4. For more information on CA Score, please click [here](#).

Perform Beyond Expectations, choose Berk-Tek.

Construction

Bare copper wire insulated with FEP. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit made round with 3 monofilaments and with a striated flame-retardant PVC jacket.

Flame Rating

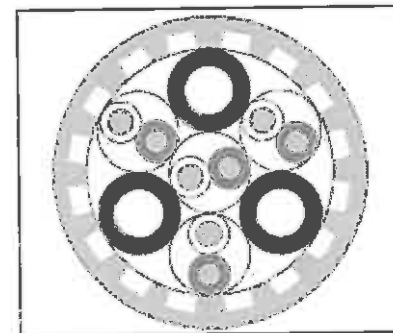
- Plenum-NFPA 262, CMP
- ETL Listed

Features

- New flexible, round, compact design
- Alien Crosstalk compliant
- Fully compliant to Augmented Category 6 requirements
- Documented balance characteristics (LCL/TCL, EL TCTL)
- Reduced attenuation (Insertion Loss)
- Highest performing UTP cable available
- RoHS Compliant

Benefits

- Easier installation and cable management with round design
- Round design provides a true OD measurement
- Provides the bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics improves overall cable performance and reduce transmission errors
- Characterized to 750 MHz, 250 MHz greater than the standard
- Improved insertion loss for stronger signal to noise ratio



Standards

National ANSI/TIA-568-C.2;
NFPA 262; UL 444

LANmark-10G2 Plenum UTP

Characteristics

Construction characteristics	
Type of cable	UTP
Dimensional characteristics	
Length per reel	1000.0 ft
Number of pairs	4
Usage characteristics	
Field of application	Indoor
Category	Cat 6a
Fire safety	CMP - Plenum Rated

Product List

☞ = Make to order, ☛ = In stock

Part Number	Description	Colour	Packaging
☛ 10130484	LANmark-10G2 Plenum CAT 6a UTP	Blue	Reel
☛ 10137694	LANmark-10G2 Plenum CAT 6a UTP	Green	Reel
☛ 10137695	LANmark-10G2 Plenum CAT 6a UTP	Black	Reel
☛ 10138765	LANmark-10G2 Plenum CAT 6a UTP	Red	Reel
☛ 10138182	LANmark-10G2 Plenum CAT 6a UTP	Violet	Reel
☛ 10137183	LANmark-10G2 Plenum CAT 6a UTP	Grey	Reel
☛ 10137384	LANmark-10G2 Plenum CAT 6a UTP	White	Reel
☛ 10137385	LANmark-10G2 Plenum CAT 6a UTP	Yellow	Reel
☛ 10138181	LANmark-10G2 Plenum CAT 6a UTP	Pink	Reel
☛ 10138767	LANmark-10G2 Plenum CAT 6a UTP	Orange	Reel
☛ 11089901 New	LANmark-10G2 Plenum CAT 6a UTP	White	Reel in a box
☛ 11085339	LANmark-10G2 Plenum CAT 6a UTP	Blue	Reel in a box
☛ 11089905 New	LANmark-10G2 Plenum CAT 6a UTP	Grey	Reel in a box
☛ 11085826 New	LANmark-10G2 Plenum CAT 6a UTP	Green	Reel in a box
☛ 11089987	LANmark-10G2 Plenum CAT 6a UTP	Blue	Reel

☞ = Make to order, ☛ = In stock

LANmark-10G2 Plenum UTP

LANmark-10G2 Parametric Data: Electrical

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

FQ	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACRF (dB)	PSANEXT (dB)	LCL/TCL
	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG
1	20.00 / 20.00	74.30 / 76.30	72.30 / 74.30	67.80 / 71.80	67.00 / 67.00	50.00
4	23.00 / 23.00	65.30 / 67.30	63.30 / 65.30	55.80 / 59.70	67.00 / 67.00	44.0
10	25.00 / 25.00	59.30 / 61.30	57.30 / 59.30	47.80 / 51.80	67.00 / 67.00	40.00
16	25.00 / 25.00	56.20 / 58.30	54.20 / 56.30	43.70 / 47.70	67.00 / 67.00	38.00
20	25.00 / 25.00	54.80 / 56.80	52.80 / 54.80	41.80 / 45.80	67.00 / 67.00	37.00
31.25	23.60 / 23.60	51.90 / 53.90	49.90 / 51.90	37.90 / 41.90	67.00 / 67.00	35.10
62.5	21.50 / 21.50	47.40 / 49.40	45.40 / 47.40	31.90 / 35.80	65.60 / 65.60	32.00
100	20.10 / 20.10	44.30 / 46.30	42.30 / 44.30	27.80 / 31.80	62.50 / 62.50	30.00
250	17.30 / 22.20	38.30 / 40.30	36.30 / 38.30	19.80 / 23.80	56.50 / 56.50	26.00
350	16.30 / 16.30	36.10 / 38.20	34.10 / 36.20	16.90 / 20.90	— / 54.30	24.60
400	15.90 / 15.90	35.30 / 37.30	33.30 / 35.30	15.80 / 19.70	53.50 / 53.40	24.00
500	15.20 / 15.20	33.80 / 35.80	31.80 / 33.80	13.80 / 17.80	52.00 / 52.00	23.00
600	— / 14.70*	— / 34.60*	— / 32.60*	— / 16.20*	— / 50.80*	22.20*
750	— / 14.00*	— / 33.20*	— / 31.20*	— / 14.30*	— / 49.30*	21.20*

FQ	IL (dB/100 m)	ACR (dB/100 m)	PSACR (dB/100 m)	PSACRF (dB/100 m)	PSAACRF (dB)	EL TCTL
	TIA / PG	TIA / PG	TIA / PG	TIA / PG	TIA / PG	PG
1	2.10 / 2.10	72.20 / 74.20	70.20 / 72.20	64.80 / 68.80	67.00 / 67.00	35.00
4	3.80 / 3.80	61.50 / 63.50	59.50 / 61.50	52.80 / 56.70	66.20 / 66.20	23.00
10	5.90 / 5.90	53.40 / 55.40	51.40 / 53.40	44.80 / 48.80	58.20 / 58.20	15.00
16	7.50 / 7.50	48.80 / 50.80	46.80 / 48.80	40.70 / 44.70	54.10 / 54.10	10.90
20	8.40 / 8.40	46.40 / 48.40	44.40 / 46.40	38.80 / 42.80	52.20 / 52.50	9.00
31.25	10.50 / 10.50	41.40 / 43.40	39.40 / 41.40	34.90 / 38.90	48.30 / 48.30	—
62.50	15.00 / 15.00	32.40 / 34.40	30.40 / 32.40	28.90 / 32.80	42.30 / 42.30	—
100	19.10 / 19.10	25.20 / 27.20	23.20 / 25.20	24.80 / 28.80	38.20 / 38.20	—
250	31.10 / 31.10	7.30 / 9.30	5.30 / 7.30	16.80 / 20.80	30.20 / 30.20	—
350	37.20 / 37.20	-1.10 / 1.00	-3.10 / —	13.90 / 17.90	26.20 / 27.30	—
400	40.10 / 40.10	-4.80 / -2.80	-6.80 / —	12.80 / 16.70	26.20 / 26.20	—
500	45.30 / 45.30	-11.40 / -9.40	-13.4 / —	10.80 / 14.80	24.20 / 24.20	—
600	— / 50.10*	— / -15.40*	— / —	— / 13.20*	— / 22.60*	—
750	— / 56.70*	— / -23.50*	— / —	— / 11.30*	— / 20.70*	—

*Values provided for reference only

LANmark-10G2 Plenum UTP Physical Data

Technical Data - Physical			Color Code		
Conductor	23 AWG Bare Copper		Pair-1	White	Blue
Conductor diameter - in. (mm)	0.023	(0.58)	Pair-2	White	Orange
Insulated conductor dia.-in.(mm)	0.044	(1.12)	Pair-3	White	Green
Cable diameter - in. (mm)	0.300	(7.62)	Pair-4	White	Brown
Nom. cable wt.-lb./kft. (kg/kft)	38	(17.7)	Temperature Rating (degrees C)		
Max. installation tension - lb. (N)	25	(110)	Installation	0 to +50	
Min. bend radius - in. (mm)	1.2	(30.48)	Operation	-20 to +75	

LANmark-10G2 Plenum Technical Data - Parametric Measurements

Mutual Capacitance	5.1 nF/100 m max	Pair to Ground Unbalance	330 pF/100 m max
DC Resistance	9.38 Ohms/100 m max.	Velocity of Propagation	67% nom.

LANmark-10G2 Plenum UTP

Skew 45 ns/100 m max. DC Resistance imbalance 4% max.

Supported CAT 6a Applications

STANDARD	APPLICATION	SPEED
IEEE 802.3an	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA 654	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s
IEEE 802.3 af	PoE	1 Gb/s
IEEE 802.3 at	PoE+, Type 1 & 2	1 Gb/s

LANmark-10G2 UTP Plenum Jacket Legend

BERK-TEK LANMARK-10G2 23 AWG CMP 75C C(UL) US ETL VERIFIED TIA-568-C.2 CAT 6A [ANY APPLICABLE PATENTS] [DATECODE] [SEQ#] FT

LANmark-10G2 Converged Application Score

A cable's Converged Application Score (CA Score) is an indicator of how well IP traffic is protected and how much heat rise there is when the cable undergoes PoE testing. The score is represented by a numeric value between 1 and 10, with 1 being the lowest and 10 being the highest. In reality, a score of 1 is unattainable because it would represent no connection, as is a score of 10 because it would mean zero heat rise with high power PoE. CA Scores range between 2 and 9.

LANmark-10G2

CA Score	Score	> 3.6	3.6 - 5.5	5.6 - 6.5	6.6 - 7.5	7.6 - 8.5	8.6 +
	Performance	Unacceptable	Poor	Limited	Good	Better	Best
Heat Rise	Severe	Significant	Moderate	Moderate	Moderate	Moderate	Low

What does the CA Score tell you? A performance rating of "Poor" (less than 3.6) means that there were consistent noticeable flaws (dropped frames, media loss, etc) in the applications tested. As you move towards higher performance scores, you would notice fewer and fewer flaws, until you reach a score of 9, which is almost flawless. PoE testing is also an important factor; cables that experienced less temperature rise achieve higher CA Scores.

Selling information

PLEASE NOTE: In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.

Adventum Plenum Rated Indoor/Outdoor Optical Cable

12 x OS2 Adventum Plenum Cable

Part Number: LTP012AB0403

Berk-Tek's revolutionary Outdoor/Indoor Adventum™ cables are designed to be used in plenum rated environments. Adventum supports the latest Gigabit Communications Protocols, including Gigabit Ethernet and ATM. This cable design utilizes Berk-Tek's unique DryGel™ waterblocking system. DryGel technology utilizes super absorbent polymers to replace the messy gel filler inside the fiber tubes. It is the only fire-rated cable designed to withstand the rigors of the outside plant environment. Adventum is rated for plenum installations and has no gel filler.

Description

Berk-Tek's loose tube cable design can be used in all typical campus and outdoor/indoor installations, and is available with standard multimode, single-mode and GIGAlite™ fibers. This design affords the installer the ability to place cable anywhere in a network, bypassing the traditional transition points required in most installations. Adventum plenum cable (U.S. Patent No. 6,178,278) is available in 2 to 432 count fiber constructions. These cables have been thoroughly tested in accordance with Telcordia GR-409 Issue 2, ICEA-596 Edition 3, and ICEA-696 Edition 2 standards where applicable.

Buffer Tube Construction

DryGel blocked color coded loose tubes containing up to 12, 250 µm, individually colored fibers.

Applications

Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

Berk-Tek's Adventum Loose Tube, plenum rated fiber optic cable is intended for all high speed data applications, including:

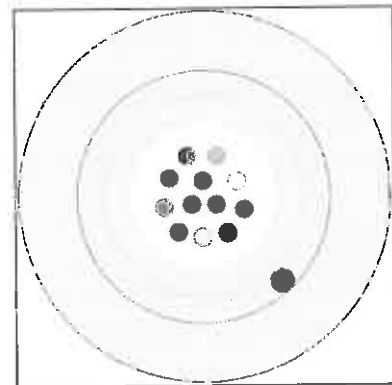
- 10BASE-FL
- 100BASE-SX/100BASE-FX
- ATM 155/ATM 622
- 1000BASE-SX/1000BASE-LX
- Fibre Channel 1.062/2.125
- 10GBASE-SR/SW
- 10GBASE-LX4
- 40/100 GbE

Features

- Designed to support Gigabit Ethernet, Gigabit ATM, Fibre Channel and other high-speed applications
- Plenum rating enables installation to go directly from outside plant to riser shaft or through plenum spaces
- Cable core and buffer tubes use DryGel water blocking system
- All dielectric design
- UV resistant outer jacket protects the cable in outside plant installations

Benefits

Compact, water blocked, plenum rated, flexible loose tube design of all dielectric



Standards

International EN 50173; ISO/IEC 11801

National ANSI/ICEA S-104-696; ANSI/ICEA S-83-596; ANSI/TIA-568-C.3; NFPA 130; Telcordia GR-409

Adventum Plenum Rated Indoor/Outdoor Optical Cable

12 x OS2 Adventum Plenum Cable

construction allows for installation in any outside plant or interior space

- No cleaning of gels required for installation, greatly reducing installation time and cost
- Transition points in network are not needed
- System grounding requirements are eliminated

Characteristics

Construction characteristics

Fiber optic type	SM (G657.A1)
Type of cable	Loose tube
Jacket Material	Plenum
Sheath colour	Yellow

Dimensional characteristics

Tube diameter	3 mm
Number of optical fibres	12
Cable diameter (Nominal)	0.26 in
Nominal outer diameter	6.6 mm
Nominal cable weight	33 lb/kft
Approximate weight	49 kg/km

Transmission characteristics

Optical performance	AB (Single-mode, OS2)
Attenuation, max. 1310 nm (cabled)	0.4 dB/km
Attenuation, max. 1550 nm (cabled)	0.3 dB/km

Mechanical characteristics

Maximum installation tension	300 lb
Maximum installation tension	1335 N
Max. Load. Long Term (lbs)	90.0 lb
Max. Load. Long Term	400.0 N
Impacts per TIA/EIA FOTP-25	2 at 4.41 N-m
Crush resistance per TIA/EIA FOTP-41	110 N/cm
Cable flexibility per TIA/EIA FOTP-104	100 cycles

Usage characteristics

Minimum Bending Radius - Install	3.9 in
Minimum Bend Radius - Install	9.9 cm
Minimum Bending Radius - LongTerm	2.6 in
Minimum Bending Radius - LongTerm	6.6 cm
Operating temperature, range	-40 .. 75 °C
Ambient installation temperature, range	-20 .. 60 °C
Storage temperature, range	-60 .. 85 °C
Field of application	Indoor, Outdoor

Adventum Plenum Rated Indoor/Outdoor Optical Cable

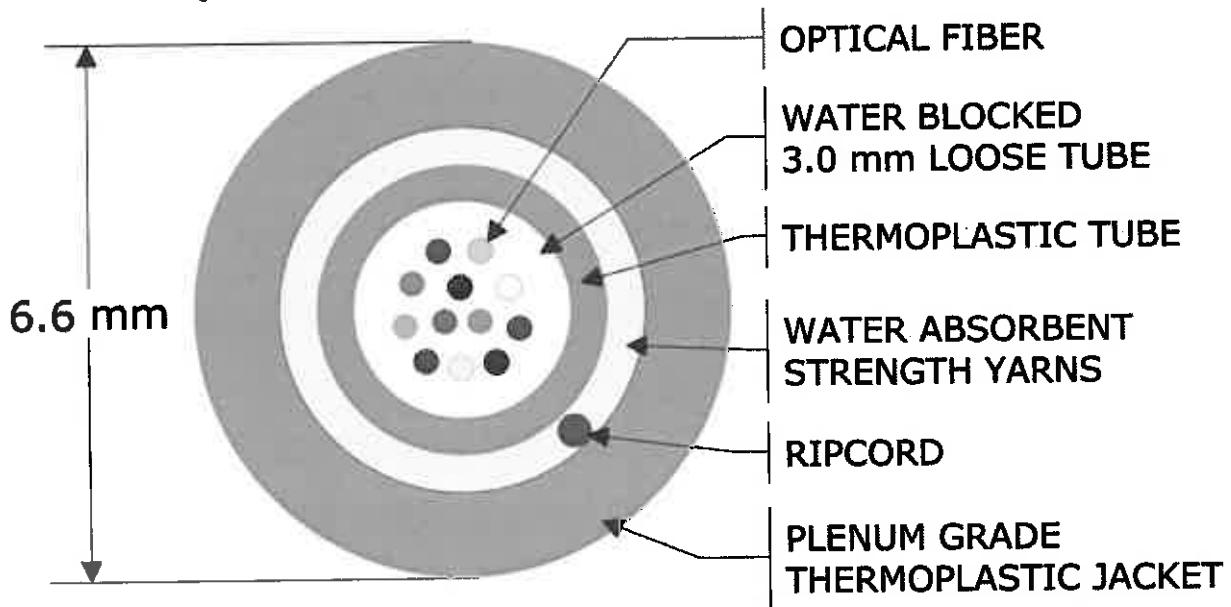
12 x OS2 Adventum Plenum Cable

Standard Sheath Colors

Fiber Type	Core Size (um)	ISO-TIA Standard	Effective Modal BW @ 850 nm	Overfilled Launch BW @ 850 nm	Attenuation @ 850 nm	Attenuation @ 1300 nm	Attenuation @ 1550 nm	Sheath Color
AB	8.3	OS2	NS	NS	NS	0.4 dB/km	0.3 dB/km	Yellow
CB	62.5	OM1	200 MHz-km	200 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange
GB	62.5	OM1+	500 MHz-km	350 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange
ZB	50	OM2	500 MHz-km	500 MHz-km	3.5 dB/km	1.5 dB/km	NS	Orange
LB	50	OM2+	950 MHz-km	700 MHz-km	3.0 dB/km	1.0 dB/km	NS	Orange
EB	50	OM3	2000 MHz-km	1500 MHz-km	3.0 dB/km	1.0 dB/km	NS	Aqua
FB	50	OM4	4700 MHz-km	3500 MHz-km	3.0 dB/km	1.0 dB/km	NS	Aqua
XB	50	OM4+	4900 MHz-km	3675 MHz-km	3.0 dB/km	1.0 dB/km	NS	Violet

NS = Not Specified

Cross-section Diagram - LTP012



Manufacturing Release

IMPORTANT NOTICE: This product specification is provided for informational purposes only in order to illustrate typical product constructions, applications and/or methods of installation. Because conditions of actual installation and use are unique and will vary, Berk-Tek makes no representation or warranty as to the reliability, accuracy or completeness of this data, even if Berk-Tek is aware of the product's intended use or purpose. Furthermore, this data does not constitute, nor should it be regarded or relied upon, as professional engineering advice. Installation of product should only be done by qualified personnel and in conformance with all safety, electrical and other applicable codes, standards, rules or regulations. Appropriate and correct product selection, installation and use, and compliance with all such codes, standards, rules and regulations, is a customer/end-user responsibility. Product

Adventum Plenum Rated Indoor/Outdoor Optical Cable
12 x OS2 Adventum Plenum Cable

specifications, standards, programs or services are subject to improvement or changes without notice. Berk-Tek accepts no liability for typographical errors, technical inaccuracies, omissions or misuse of the information contained herein. Changes will be periodically made to address any such issues.

12- & 24-Fiber Injection-Molded Splice Trays

APPLICATION

Leviton Injection-Molded Plastic Splice Trays provide protection and slack management of heat-shrink fusion spliced fibers (up to 12 or 24 fibers) inside of a fiber enclosure. Available in 12-fiber mini and 24-fiber high-density versions, both trays accommodate 250 or 900µm fiber and feature a clear cover for viewing and inspection of tray contents.



FEATURES

- Four ratchet action clamps with foam rubber padding to minimize crush of loose tube or tight buffer fiber
- Clear cover allows viewing or inspection of fibers without having to remove cover
- Multiple tie-down holes for securing incoming fiber
- Accepts up to 12 or 24 heat-shrink-style fusion spliced fibers
- Splice sleeves included
- Mounting hardware sold separately
- Accommodates standard heat-shrink sleeves in 40 or 60 mm lengths

DESIGN CONSIDERATIONS

- Use for single-mode or multimode fiber
- Durable injection-molded plastic trays and covers
- Center hole for mounting of tray
- 12- and 24-fiber splice trays installable in Leviton SDX and LightSpace® CPC/CPS wall-mount enclosures
- 12-fiber mini splice trays installable in all Leviton Network Interface Device (NID) enclosures

PHYSICAL SPECIFICATIONS

Dimensions: See page two
Materials: G.E. Noryl E190 UL94 VO Rated

WARRANTY INFORMATION

For a copy of Leviton product warranties, visit www.leviton.com.

T5PLS-12F, T5PLS-24F

SPECIFICATION

The fiber splice trays shall be offered in mini and high-density versions with removable clear covers for viewing and inspection of fibers. Incoming fiber shall be secured utilizing a ratchet action foam rubber padding clamp feature or tie-down points to minimize crushing of fiber. The trays shall accommodate slack management of both single-mode and multimode 250 or 900µm fiber and protection of (up to) 12 or 24 fiber heat-shrink-style fusion splices. Heat-shrink splice sleeves shall be included.

Page 1 of 2

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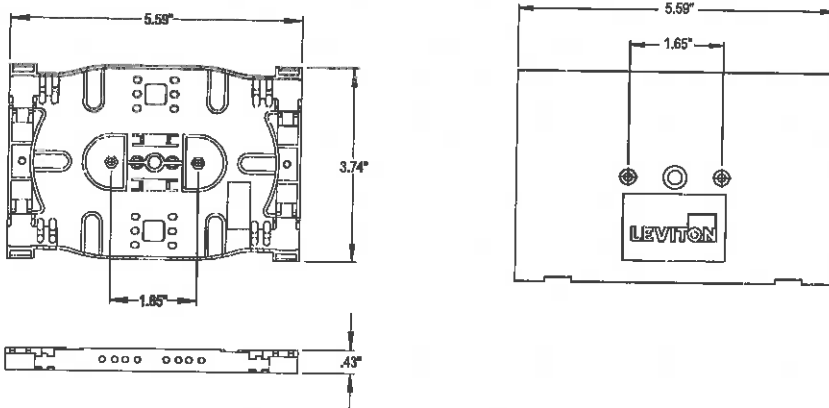
COMPONENT SPECIFICATIONS
T5PLS-12F, T5PLS-24F



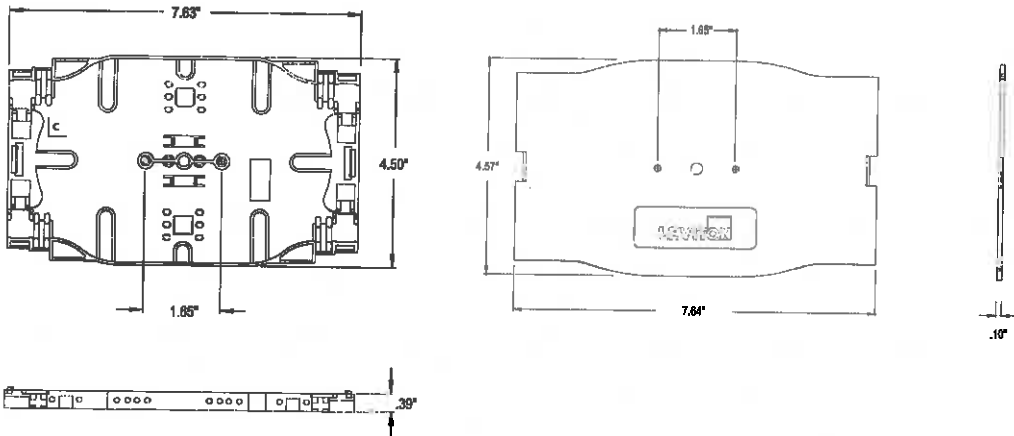
ELECTRONIC FILES

For CAD files, typical specs, or technical drawings (.DXF, .DWG), visit www.leviton.com.

T5PLS-12F



T5PLS-24F



NOTE: Images not to scale.

PART NUMBERS

Description	Part No.
12-Fiber Mini Injection Molded Splice Tray	T5PLS-12F
24-Fiber High Density Injection Molded Splice Tray	T5PLS-24F
Splice Tray Mounting Hardware Kit	SPLMT-HKT
Standard Heat Shrink Splice Sleeve 40mm Length	FSSSD-040
Standard Heat Shrink Splice Sleeve 60mm Length	FSSSD-060



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Economy Series Fiber Optic Patch Cords

APPLICATION

Leviton Fiber Optic Patch Cords are designed to interconnect or cross connect fiber networks within structured cabling systems. Leviton can produce any standard or custom fiber patch cord to meet your needs, and can offer quick-turn services for fast delivery.

Leviton offers two series of patch cords: Premium Series and Economy Series. Premium Series Patch Cords offer higher performance, optional custom labels, and optional 100% interferometer testing. Economy Series Patch Cords are a price-competitive solution that meets or exceeds all industry standards.



Economy Series
 LC-LC Duplex, OM3 LOMM

SPECIFICATION

Multimode patch cords shall meet an optical return loss equal to or better than -25 dB per mated pair, and single-mode equal to or better than -50 dB for UPC polish, or -55 dB for APC polish. Insertion loss shall not exceed 0.4 dB per mated pair for multimode and 0.35 dB for single-mode. The patch cords shall be compliant with ANSI/TIA-568-C.3.

FEATURES

- Available in duplex configurations
- Industry-standard connector options
- All cables 100% optically tested
- Many fiber options: OM1, OM2, OM3, OM4, and OS2
- All cables are pre-labeled and individually bagged

DESIGN CONSIDERATIONS

- Offered in SC, ST, LC, or hybrid options
- All connectors have precision pre-radiused zirconia ferrules
- ST connectors have metal bodies
- Duplex clips included
- Single-mode SC available in UPC or APC

STANDARDS COMPLIANCE

Designed to meet the requirements of ANSI/TIA-568-C.3

COUNTRY OF ORIGIN

China

WARRANTY INFORMATION

For Leviton product warranties, visit leviton.com/warranty.

Economy Series Fiber Optic Patch Cords

COLOR CODES	
Cable Jackets	
Single-mode	Yellow
Multimode (62.5/125 µm)	Orange
Multimode (50/125 µm)	Orange
Laser optimized multimode (50/125 µm)	Aqua
Connectors and adapters	
Single-mode	Blue
Single-mode, APC (angle polishing)	Green
Multimode (62.5/125 µm)	Beige
Multimode (50/125 µm)	Beige
Laser optimized multimode (50/125 µm)	Aqua (connectors are beige)
Boots (Polarity defined by the following color scheme)	
Single-Mode	Yellow and White
Multimode	Black and Red

PERFORMANCE SPECIFICATIONS		
	Multimode	Single-mode
Insertion Loss	0.4 dB Max	0.35 dB Max
Return Loss	>-25 dB	>-50 dB (UPC), >-55 dB (APC)
Durability	500 Matings	500 Matings
Repeatability	<0.2 dB	<0.2 dB
Operating Environment	-40° C to 75° C	-40° C to 75° C
Cable Retention	>20lbs / 89 N	>20lbs / 89 N
Rohs	Yes	Yes

Page 1 of 3

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PRODUCT SPECIFICATIONS
Economy Series Fiber Optic Patch Cords



Economy Series Fiber Optic Patch Cords

PERFORMANCE SPECIFICATIONS (CONT.)											
Cable Performance											
Fiber Type	Maximum Attenuation (db/km)				Bandwidth (MHz·km)		Transmission Distance (meters)				
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	100Mb	1GbE	10GbE	40GbE	10GbE
Single-mode (OS2)	N/A	N/A	0.4	0.3	N/A	N/A	>5,000 @ 1310nm		>10,000 @ 1310nm	NA	NA
62.5/125 µm MM (OM1)	3.5	1.0	N/A	N/A	200	500	300/2000 @ 850/1300nm	300/600 @ 850/1300nm	36/300 @ 850/1300nm	NA	NA
50/125 µm MM (OM2)	3.0	1.0	N/A	N/A	950	500		750/600 @ 850/1300nm	150/300 @ 850/1300nm	NA	NA
50/125 µm LO (10G-300m) MM (OM3)	3.0	1.0	N/A	N/A	2,000 ¹	500 ²		1,000/600 @ 850/1300nm	300/300 @ 850/1300nm	100 @ 850nm	100 @ 850nm
50/125 µm LO (10G-550m) MM (OM4)	3.0	1.0	N/A	N/A	4,900 ¹	500 ²		1,210/600 @ 850/1300nm	600/300 @ 850/1300nm	150 @ 850nm	150 @ 850nm

¹ The effective modal bandwidth is determined based on an overfill launch (OFL, per ANSI/TIA-455-204, except on laser-optimized fiber types).
² 10GbE transmission @ 1,300 nm only applies to 10GBASE-LX4 (CWDM).

62.5/125 µm MULTIMODE (OM1) OFNR DUPLEX		
DESCRIPTION	LENGTH (METERS)	DUPLEX
SC-SC	1	62DSC-M01
SC-SC	2	62DSC-M02
SC-SC	3	62DSC-M03
SC-SC	5	62DSC-M05
SC-SC	10	62DSC-M10
ST-ST	1	62DST-M01
ST-ST	2	62DST-M02
ST-ST	3	62DST-M03
ST-ST	5	62DST-M05
ST-ST	10	62DST-M10
LC-LC	1	62DLC-M01
LC-LC	2	62DLC-M02
LC-LC	3	62DLC-M03
LC-LC	5	62DLC-M05
LC-LC	10	62DLC-M10
SC-ST	1	62DCT-M01
SC-ST	2	62DCT-M02
SC-ST	3	62DCT-M03
SC-ST	5	62DCT-M05
SC-ST	10	62DCT-M10
SC-LC	1	62DCL-M01
SC-LC	2	62DCL-M02
SC-LC	3	62DCL-M03
SC-LC	5	62DCL-M05
SC-LC	10	62DCL-M10

50/125 µm MULTIMODE (OM2) OFNR DUPLEX		
DESCRIPTION	LENGTH (METERS)	DUPLEX
SC-SC	1	50DSC-M01
SC-SC	2	50DSC-M02
SC-SC	3	50DSC-M03
SC-SC	5	50DSC-M05
SC-SC	10	50DSC-M10
ST-ST	1	50DST-M01
ST-ST	2	50DST-M02
ST-ST	3	50DST-M03
ST-ST	5	50DST-M05
ST-ST	10	50DST-M10
LC-LC	1	50DLC-M01
LC-LC	2	50DLC-M02
LC-LC	3	50DLC-M03
LC-LC	5	50DLC-M05
LC-LC	10	50DLC-M10
SC-LC	1	50DCL-M01
SC-LC	2	50DCL-M02
SC-LC	3	50DCL-M03
SC-LC	5	50DCL-M05
SC-LC	10	50DCL-M10

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PRODUCT SPECIFICATIONS
Economy Series Fiber Optic Patch Cords



Economy Series Fiber Optic Patch Cords

50/125 µm LOMM (OM3) OFNR DUPLEX		
DESCRIPTION	LENGTH (METERS)	DUPLEX
SC-SC	1	5LDSC-M01
SC-SC	2	5LDSC-M02
SC-SC	3	5LDSC-M03
SC-SC	5	5LDSC-M05
SC-SC	10	5LDSC-M10
LC-LC	1	5LDLC-M01
LC-LC	2	5LDLC-M02
LC-LC	3	5LDLC-M03
LC-LC	5	5LDLC-M05
LC-LC	10	5LDLC-M10
SC-LC	1	5LDCL-M01
SC-LC	2	5LDCL-M02
SC-LC	3	5LDCL-M03
SC-LC	5	5LDCL-M05
SC-LC	10	5LDCL-M10

5/125 µm SINGLE-MODE (OS2) OFNR DUPLEX		
DESCRIPTION	LENGTH (METERS)	DUPLEX
SC-SC	1	UPDSC-S01
SC-SC	2	UPDSC-S02
SC-SC	3	UPDSC-S03
SC-SC	5	UPDSC-S05
SC-SC	10	UPDSC-S10
LC-LC	1	UPDLC-S01
LC-LC	2	UPDLC-S02
LC-LC	3	UPDLC-S03
LC-LC	5	UPDLC-S05
LC-LC	10	UPDLC-S10
SC-LC	1	UPDCL-S01
SC-LC	2	UPDCL-S02
SC-LC	3	UPDCL-S03
SC-LC	10	UPDCL-S10
ST-ST	1	UPDST-S01
ST-ST	2	UPDST-S02
ST-ST	3	UPDST-S03
ST-ST	10	UPDST-S10
SC-ST	1	UPDCT-S01
SC-ST	2	UPDCT-S02
SC-ST	3	UPDCT-S03
SC-ST	10	UPDCT-S10

50/125 µm LOMM (OM4) OFNR DUPLEX		
DESCRIPTION	LENGTH (METERS)	DUPLEX
LC-LC	1	54DLC-M01
LC-LC	2	54DLC-M02
LC-LC	3	54DLC-M03
LC-LC	5	54DLC-M05
LC-LC	10	54DLC-M10
SC-LC	1	54DCL-M01
SC-LC	2	54DCL-M02
SC-LC	3	54DCL-M03
SC-LC	5	54DCL-M05
SC-LC	10	54DCL-M10

APC SINGLE-MODE (OS2) SIMPLEX		
DESCRIPTION	LENGTH (METERS)	SIMPLEX
SC-SC	1	APSSC-S01
SC-SC	2	APSSC-S02
SC-SC	3	APSSC-S03
SC-SC	5	APSSC-S05
SC-SC	10	APSSC-S10



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Multi-Pair Category 3

25 Pair Category 3 Plenum

Part Number: 10032036

Berk-Tek's Category 3 UTP Power Sum cables are designed for use in voice applications. These cables are used to support building backbone service. They also can be used for interconnecting satellite wiring closets.

Description

Construction

24 AWG) bare copper wire insulated with thermoplastic. Three layer core construction jacketed in flame retardant PVC.

Standards

- North American: ANSI/TIA/EIA-568-C.2, UL 444 and C22.2 No.214-02
- International: ISO/IEC 11801, EU Directive 2002/95/EC (RoHS)

Flame Rating

- Non-plenum-UL 1666, CMR, CMG, IEC 332-1
- Plenum-NFPA 262, CMP
- ELT Listed

Applications

Berk-Tek's Multi-Pair Category 3 UTP Power Sum Backbone cables are intended for data and voice applications including:

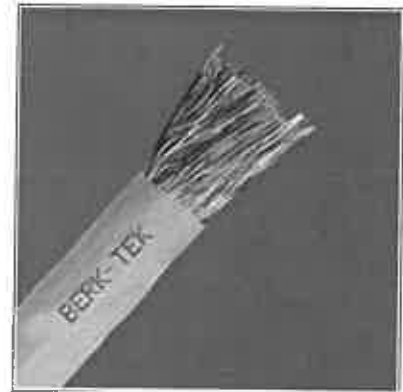
- Ethernet 10BASE-T
- Voice

Features

- ANSI/TIA/EIA-568-B.2 Category 3 Backbone Cable
- Supports 10BASE-T and Voice
- Ideally suited for backbone, cross-connect and pre-connectorized assemblies

Benefits

- Assurance that every link will meet the most demanding transmission requirements
- Simplified structured cabling solution preserving long-term network investment



Standards

National ANSI/TIA-568-C.2

Multi-Pair Category 3

25 Pair Category 3 Plenum

Part Number: 10032036

Characteristics

Construction characteristics

Type of cable	UTP
Colour	Blue

Dimensional characteristics

Length per reel	1000.0 ft
Number of pairs	25

Usage characteristics

Packaging	Reel
Field of application	Indoor
Category	Cat. 3
Fire safety	CMP - Plenum Rated

Technical Data - Electrical

Frequency (MHz)	Insertion Loss (dB/100m max)	SRL (dB min)	PS-NEXT (dB min)
1	2.6	12	41.3
4	5.6	12	32.3
10	9.8	12	26.3
16	13.1	10	23.3

Technical Data - Physical

	25 PR (CMR)	25 PR (CMP)	50 PR (CMR)	50 PR (CMP)	100 PR (CMR)
Mutual Capacitance, nF/100 m nom.	6.6	6.6	6.6	6.6	6.6
DC Resistance, Ohms/100 m max.	9.4	9.4	9.4	9.4	9.4
Conductor diameter—in. (mm)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)
Cable diameter—in. (mm)	.390 (9.9)	.382 (9.7)	.525 (13.3)	.496 (12.59)	.895 (22.72)
Nominal cable weight lb/k ft.(kg/km)	97 (144)	100 (148)	196 (290)	198 (293)	387 (573)
	100 PR (CMP)	200 PR (CMR)	200 PR (CMP)	300 PR (CMR)	300 PR (CMP)
Mutual Capacitance, nF/100 m nom.	6.6	6.6	6.6	6.6	6.6
DC Resistance, Ohms/100 m max.	9.4	9.4	9.4	9.4	9.4
Conductor diameter—in. (mm)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)
Cable diameter—in. (mm)	.889 (22.57)	1.123 (28.51)	1.012 (25.69)	1.314 (33.36)	1.27 (32.25)
Nominal cable weight lb/k ft. (kg/km)	395 (585)	691 (1023)	691 (1023)	1226 (1814)	1226 (1814)

Multi-Pair Category 3
25 Pair Category 3 Plenum

Color Code

Pair 1	White/Blue	Blue/White	Pair 13	Black/Green	Green/Black
Pair 2	White/Orange	Orange/White	Pair 14	Black/Brown	Brown/Black
Pair 3	White/Green	Green/White	Pair 15	Black/Gray	Gray/Black
Pair 4	White/Brown	Brown/White	Pair 16	Yellow/Blue	Blue/Yellow
Pair 5	White/Gray	Gray/White	Pair 17	Yellow/Orange	Orange/Yellow
Pair 6	Red/Blue	Blue/Red	Pair 18	Yellow/Green	Green/Yellow
Pair 7	Red/Orange	Orange/Red	Pair 19	Yellow/Brown	Brown/Yellow
Pair 8	Red/Green	Green/Red	Pair 20	Yellow/Gray	Gray/Yellow
Pair 9	Red/Brown	Brown/Red	Pair 21	Violet/Blue	Blue/Violet
Pair 10	Red/Gray	Gray/Red	Pair 22	Violet/Orange	Orange/Violet
Pair 11	Black/Blue	Blue/Black	Pair 23	Violet/Green	Green/Violet
Pair 12	Black/Orange	Orange/Black	Pair 24	Violet/Brown	Brown/Violet
			Pair 25	Violet/Gray	Gray/Violet

Application note: If installing as 6 4-pr. connections, use sequential pairs (1-4, 5-8, etc.) to ensure standard performance

Temperature Rating

Installation	0°C to +50°C
Operation	-10°C to +60°C

Selling information

PLEASE NOTE: In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.



40066-M25

Cross-Connect

Item Description

M Block: 25-pair (66M1-25) 10" H x 3-5/16" W x 1-3/16" D



UPC Code: 07847712351

Country of Origin: Taiwan - *Eligible for
ARRA funded projects > \$7,443,000



SPECIFICATION SUBMITTAL

JOB NAME:	CATALOG NUMBERS	
JOB NUMBER:		

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