



March 25, 2014

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

Re: BPH14114

To Whom It May Concern,

TESSCO is offering Exalt as a substitution to the Adtran product represented in Lines 0034 -0040 of the Solicitation. Although TESSCO currently offers the Adtran product, Exalt proves to be a less expensive solution with better adaptability to the changing world of wireless.

TESSCO is providing the State of West Virginia one (1) year pricing hold. TESSCO will need to submit pricing on RFQ Item# 3, 4, 7, 8, 9, 10, 15, 21, 22, 23, 24, and 25 with the understanding that if costs change by +5%, TESSCO will pass through this price increase to the State of West Virginia during the required 1 year price hold period.

Please feel free to contact your Account Manager, Kevin O'Brien, with any questions at 410-229-1448 or obrienk@tessco.com.

Sincerely,

Cynthia L. King
Vice President & Treasurer

03/26/14 09:58:10AM
West Virginia Purchasing Division



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

Solicitation

NUMBER
BPH14114

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
BOB KILPATRICK 304-558-0067

*709031705 800-472-7373

TESSCO INC
11126 MCCORMICK RD
HUNT VALLEY MD 21031

HEALTH AND HUMAN RESOURCES
BPH - OFFICE OF EMERGENCY
MEDICAL SERVICES
VARIOUS LOCALES AS INDICATED
ON PURCHASE ORDER

DATE PRINTED
03/06/2014

BID OPENING DATE: 03/26/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				REQUEST FOR QUOTATION (RFQ)		
				THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES, BUREAU FOR PUBLIC HEALTH, OFFICE OF EMERGENCY SERVICES, IS SOLICITING BIDS TO ESTABLISH AN "OPEN END" CONTRACT FOR THE PURCHASE OF ANTENNAS AND RELATED EQUIPMENT, FOR STATEWIDE MEDICAL COMMAND COMMUNICATIONS, STATEWIDE INTEROPERABLE RADIO SYSTEM, AS WELL AS ALL STATE AGENCIES, PER THE ATTACHED SPECIFICATIONS		
				THE CONTRACT MAY BE UTILIZED BY WEST VIRGINIA STATE AGENCIES AND ALL POLITICAL SUBDIVISIONS OF THE STATE IN ALL 55 COUNTIES.		
				ATTACHMENTS INCLUDE:		
				1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS		
				2. GENERAL TERMS AND CONDITIONS		
				3. BPH14114 SPECIFICATIONS (INCLUDING PRICING PAGE)		
				4. CERTIFICATION AND SIGNATURE PAGE		
				5. PURCHASING AFFIDAVIT		
				6. VENDOR PREFERENCE CERTIFICATE		
				NOTE: PRICING PAGE MAY BE ACQUIRED IN ELECTRONIC FORMAT (SEE SPECIFICATIONS)		

SIGNATURE 	Cynthia L King	TELEPHONE 800-316-2830	DATE 3/24/14
TITLE Vice President & Treasurer	FEIN 52-1868893	ADDRESS CHANGES TO BE NOTED ABOVE	

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



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

Solicitation

NUMBER

BPH14114

PAGE

2

ADDRESS CORRESPONDENCE TO ATTENTION OF:

BOB KILPATRICK

804-558-0067

*709031705 800-472-7373

TESSCO INC
11126 MCCORMICK RD

HUNT VALLEY MD 21031

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HEALTH AND HUMAN RESOURCES
BPH - OFFICE OF EMERGENCY
MEDICAL SERVICES
VARIOUS LOCALES AS INDICATED
ON PURCHASE ORDER

DATE PRINTED

03/06/2014

BID OPENING DATE: 03/26/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		906-29	See Pricing Pages	See Pricing Pages
ANTENNAS AND RELATED EQUIPMENT, PER ATTACHED						
***** THIS IS THE END OF RFQ BPH14114 ***** TOTAL:						\$302,552.29

SIGNATURE

Cynthia L King

TELEPHONE

800-316-2830

DATE

3/24/14

TITLE

Vice President & Treasurer

FEIN

52-1868893

ADDRESS CHANGES TO BE NOTED ABOVE

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

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:

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 non-binding.

Question Submission Deadline: Tuesday, March 18, 2014, by 12:00pm EST

Submit Questions to: Bob Kilpatrick, Senior Buyer, Purchasing Division
 2019 Washington Street, East
 Charleston, WV 25305
 Fax: 304-558-4115
 Email: robert.p.kilpatrick@wv.gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made 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 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 bid delivery address is:

Department of Administration, Purchasing Division
 2019 Washington Street East
 Charleston, WV 25305-0130

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID

BUYER: Bob Kilpatrick, Buyer 22

SOLICITATION NO.: BPH14114

BID OPENING DATE: March 26, 2014

BID OPENING TIME: 1:30pm EST

FAX NUMBER: 304-558-3970

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. 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: ☐ 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 time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time: Wednesday, March 26, 2014, at 1:30pm 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.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order 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 **"Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.
 - 2.3 **"Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.
 - 2.4 **"Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.
 - 2.5 **"Purchase Order"** 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 successful bidder and Contract holder.
 - 2.6 **"Solicitation"** means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.
 - 2.7 **"State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - 2.8 **"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 **UPON AWARD**

and extends for a period of **ONE (1)** 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 must be submitted to the Purchasing Division Director 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 **TWO (2)** successive one (1) year periods. 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.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

Release Order Limitations: In the event that this contract permits release orders, a release order may only be issued during the time this Contract is in effect. Any release order issued within one year of the expiration of this Contract shall be effective for one year from the date the release order is issued. No release 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 _____ days.

☐ **One Time Purchase:** The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall 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 Purchase Order 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 _____. The performance bond must be issued and 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 issued and 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.
- ☐ **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.
- ☐ **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:**
_____ or more.

☐ **Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

☐

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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.

☐
☐
☐
☐

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. **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.
10. **ALTERNATES:** Any model, brand, or specification listed herein 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

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

22. **SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, 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 submission of its bid 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.
23. **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.
24. **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 cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
25. **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.
26. **TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
27. **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.
28. **COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
29. **PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

30. **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.
31. **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). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
32. **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.
33. **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.
34. **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.
35. **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.
36. **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.
37. **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.

38. [RESERVED]

39. 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>.

40. DISCLOSURE: Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

41. LICENSING: In accordance with West Virginia Code of State Rules §148-1-6.1.7, 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.

42. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Purchase Order 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.

- 43. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid 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 RFQ in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid 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 on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid 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.

- 44. 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.

- 45. 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.

- 46. 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.

- 47. 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.
- 48. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to 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"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. 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.
- 49. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any 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.
- 50. 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.
- 51. 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.

52. 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:

- a. 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
- b. 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.

53. 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.

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SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Department of Health and Human Resources, Bureau for Public Health, Office of Emergency Services (Agency) to establish an open-end contract for the purchase of antennas and related equipment for the Statewide Medical Command Communications, Statewide Interoperable Radio System, as well as all State agencies, political subdivisions, and municipalities for use as a statewide contract.
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 Item" or "Contract Items"** means the list of items identified in Section 3, Subsection 1 below.
 - 2.2 **"Pricing Pages"** means the schedule of prices, estimated order quantity, and totals attached hereto as Exhibit A and used to evaluate the RFQ.
 - 2.3 **"RFQ"** means the official request for quotation published by the Purchasing Division and identified as **BPH14114**.
3. **GENERAL REQUIREMENTS:**
 - 3.1 **Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below. Vendors bidding equivalent products shall provide catalog(s) or brochures to verify product specifications.
 - 3.1.1 **Contract Item #1** – CommScope 450-470 MHz 6.6/7.8dB Exposed Dipole Omni Antenna, CommScope Part Number DB408-B, or Equal.
 - 3.1.2 **Contract Item #2** – CommScope 150-160 MHz 6/9dB Exposed Dipole Omni Antenna, CommScope Part Number DB-264A, or Equal.
 - 3.1.3 **Contract Item #3** – CommScope S-300 Stand-off Bracket 36" with a 1-7/8" O.D. x 36" antenna mounting pipe. Includes mounting hardware for a maximum of 3.5" OD tower legs, CommScope. Part Number S-300, or Equal.

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- 3.1.4 **Contract Item #4** – CommScope. Adapter clamp set for up to 6.5” 60 degree, straight or tapered angle legs, CommScope Part Number AD-P60-SCP, or Equal.

- 3.1.5 **Contract Item # 5** – CommScope 7/8-inch standard coaxial cable with foam dielectric with 10-inch bending radius. Maximum frequency capacity is 5 GHz, CommScope Part Number LDF5-50A, or Equal.

- 3.1.6 **Contract Item #6** – CommScope ½-inch foam dielectric 50 Ohm coaxial cable with 5-inch bending radius to prevent kinking. Maximum frequency capacity is 8.8 GHz, CommScope Part Number LDF4-50A, or Equal.

- 3.1.7 **Contract Item #7** – CommScope Snap-In hangers for 7/8” corrugated cable, 10 pack. The hanger installs in ¾” holes in support structures. Stainless steel construction, CommScope Part Number SSH-78, or Equal.

- 3.1.8 **Contract Item #8** – CommScope SSH-12 “SnapStak” Stackable Snap-In Hangers (1/2”), 10 pack, CommScope Part Number SSH-12, or Equal.

- 3.1.9 **Contract Item #9** – CommScope Andrew “SureGround” Grounding Kit for 7/8” Aluminum or Copper, corrugated or smooth cable w/48” #6 tinned copper ground wire lead. Includes 2 hole lugs and hardware, CommScope Part Number SG78-12B2U, or Equal.

- 3.1.10 **Contract Item #10** – CommScope Andrew Grounding kit for SFX-500 flex cable. Includes 3-foot #6 AWG cable with ¼” and universal 3/8” two-hole lugs, CommScope Part Number SFX-SEK, or Equal.

- 3.1.11 **Contract Item #11** – CommScope Andrew Type N male connector (L5TNM-PS) for LDF5-50, 7/8” foam Heliax cable. Trimetal plated body and Silver plated pin, CommScope Part Number L5TNM-PS, or Equal.

- 3.1.12 **Contract Item #12** – CommScope Andrew Type N female connector (L5TNF-PS) for LDF5-50, 7/8” foam Heliax cable. Trimetal plated body and silver plated pin, CommScope Part Number L5TNF-PS, or Equal.

- 3.1.13 **Contract Item #13** – CommScope Andrew Type N Male Positive Stop for HL4RP-50, AL4RPV-50 and LDF4-50A. Self-flare with self-

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- captivated silver-plated center pin. Tri-metal plated body, CommScope Part Number L4TNM-PSA, or Equal.
- 3.1.14 Contract Item #14** – CommScope Andrew Type N Female Positive Stop for HL4RP, AL4RPV and LDF4. Self-flare with self-captivated silver-plated center pin. Tri-metal plated body, CommScope Part Number L4TNF-PSA, or Equal.
- 3.1.15 Contract Item #15** – Polyphaser 125-1000MHz general coverage flange-mounted protector. 50,000 amps surge, <200uJ throughput energy. Power rating based on frequency. Type N female connectors, Polyphaser Part Number IS-50NX-C2, or Equal.
- 3.1.16 Contract Item #16** – CommScope Andrew FSJ4-50B ½-inch 50 Ohm coaxial cable. Spiral copper corrugated outer conductor, 1.25 inch bending radius. Copper-clad aluminum center conductor. Maximum frequency capacity is 10.2 GHz, CommScope Part Number FSJ4-50B, or Equal.
- 3.1.17 Contract Item #17** – CommScope Andrew Type N Male Connector for FSJ4-50B superflexible cable. Hex head, captivated center pin. Silver body & gold plated PIN. Version 2, CommScope Part Number F4PNMV2-HC, or Equal.
- 3.1.18 Contract Item #18** – Belden 83242 RG142B/U Teflon Plenum Cable. Dual silver shields for 98 percent coverage, Belden Part Number 83242 0011000, or Equal.
- 3.1.19 Contract Item #19** – Emerson BNC male crimp connector for RG-55, 142, 223 and 400 cable, Emerson Part Number CPMC-88-13, or Equal.
- 3.1.20 Contract Item #20** – RF Industries Type N male connector for RG55, RG223, RG142, Belden 8219 & 9907 cable. Silver plated body, gold pin. Crimp center pin, crimp on braid, RF Industries Part#RFN-1005-3C1, or Equal.
- 3.1.21 Contract Item #21** – Wireless Solutions 4" boot assembly kit, w/ 1 hole for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-1, or Equal.

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- 3.1.22 **Contract Item #22** – Wireless Solutions 4" boot assembly kit w/ 2 holes for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-2, or Equal.
- 3.1.23 **Contract Item #23** – Wireless Solutions 4" boot assembly kit w/ 3 holes for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-3, or Equal.
- 3.1.24 **Contract Item #24** – Wireless Solutions 4" boot assembly kit w/ 3 holes for 1/2" corrugated coax, Wireless Solutions Part Number WS-B412-3, or Equal.
- 3.1.25 **Contract Item #25** – Wireless Solutions 4" boot assembly kit w/ 1 hole for 1/2" corrugated coax, Wireless Solutions Part Number WS-B412-1, or Equal.
- 3.1.26 **Contract Item #26** – TerraWave 2.4GHz 19 dBi Panel Antenna with Integrated N-Style Jack Connector. Includes Articulating Pole Mount, TerraWave Part Number T24190P10006GT, or Equal.
- 3.1.27 **Contract Item #27** – TerraWave 4.9-5.85 GHz Parabolic grid antenna, 30 dBi, 950MHz bandwidth. Includes articulating mast mount and integrated N-Style Jack Connector, TerraWave Part Number T49300G10006, or Equal.
- 3.1.28 **Contract Item #28** – General Dynamics Gabriel 5.25-5.85GHz Flat Directional Panel Antenna with N-Type female termination and 18.4 dBi gain @ midband. .5ft flat panel diagonal, General Dynamics Part Number DFPS.5-52, or Equal.
- 3.1.29 **Contract Item #29** – RF Industries interseries adapter kit. 30 piece combination of male and female BNC, TNC, N, SMA, UHF, and mini-UHF connectors. With zippered case, RF Industries Part#RFA-4024, or Equal.
- 3.1.30 **Contract Item #30** – Larsen low profile 26 dB black 5V GPS antenna. Includes bolt mount for 3/4" hole and 17' RG174 cable with SMA connector, Larsen Part Number GPSDM08, or Equal.

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- 3.1.31 **Contract Item #31** -- PCTEL rubber hole plug for 3/8" hole. 1-1/4" overall diameter. Package of 25, PCTEL Part Number K37/25, or Equal.
- 3.1.32 **Contract Item #32** -- PCTEL rubber hole plug for 3/4" hole. 1-1/2" overall diameter. Package of 25, PCTEL Part Number K35/25 or, Equal.
- 3.1.33 **Contract Item #33** -- PCTEL rubber hole plug for 7/8" hole. 1-1/2" overall diameter. Package of 25, PCTEL Part Number K39/25, or Equal.
- 3.1.34 **Contract Item #34** -- Adtran Tracer 6410 Modular Microwave Radio. 2.4GHz Series Chassis only. Plan A Frequency Channel plan. Designed for DC power, Adtran Part Number 12806410L2A, or Equal.
- 3.1.35 **Contract Item #35** -- Adtran Tracer 6410 Modular Microwave Radio. 2.4GHz Series Chassis only. Plan B Frequency Channel plan. Designed for DC power, Adtran Part Number 12806410L2B, or Equal.
- 3.1.36 **Contract Item #36** -- Adtran Tracer 6420 Series Modular Microwave radio. Chassis only 5.8GHz HP 24-dbm Output. Plan A Frequency Channel plan. Designed for DC power, Adtran Part Number 12806420L2A, or Equal.
- 3.1.37 **Contract Item #37** -- Adtran Tracer 6420 Series Modular Microwave radio. Chassis only 5.8 GHz HP 24-dbm Output. Plan B Frequency Channel plan. Designed for DC power, Adtran Part Number 12806420L2B, or Equal.
- 3.1.38 **Contract Item #38** -- Adtran Quad T1 I(Module only) Quad T1 interface module. Adtran Product Number 1280040L1, or Equal.
- 3.1.39 **Contract Item #39** -- Adtran 4-port ethernet bridge/layer 2 switch -- For Adtran microwave ethernet module only. Quad Ethernet switch module 1, Adtran Product Number 1280050L1, or Equal.
- 3.1.40 **Contract Item #40** -- Adtran 1280650L1 external AC power supply for TRACER 4000/5000/6000 series license-free microwave radios. 100-250

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volts AC input, 48 volts, 1.2 amps DC output (57 watts), Adtran Product Number 1280650L1, or Equal.

- 3.1.41 **Contract Item #41** – CommScope AVA6-50 1-1/4" Foam Helix cable average power @ 450MHz should be 3.59kW. Priced/foot, CommScope Product Number AVA6-50, or Equal.
- 3.1.42 **Contract Item #42** – CommScope Andrew AVA7-50 1-5/8" foam dielectric cable, 50-Ohm, annular corrugated copper outer conductor, corrugated copper tube inner conductor. 20" bending radius. Average power @ 450MHz should be 7.18kW. Price/foot, CommScope Product Number AVA7-50, or Equal.
- 3.1.43 **Contract Item #43** – CommScope Andrew Type N Male series EZfit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. Type N Male, CommScope Product Number 114EZNM, or Equal.
- 3.1.44 **Contract Item #44** – CommScope Andrew Type N Female series EZfit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. Type N Female, CommScope Product Number 114EZNF, or Equal.
- 3.1.45 **Contract Item #45** – CommScope Andrew 7/16 DIN Male series EZ fit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. DIN Male, CommScope Product Number 114EZDM, or Equal.
- 3.1.46 **Contract Item #46** – CommScope Andrew 7/16 DIN Female series EZfit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. DIN Female, CommScope Product Number 114EZDF, or Equal.
- 3.1.47 **Contract Item #47** – Larsen 152-162MHz unity gain ¼ wave chrome pre-tuned antenna. Larsen Product Number NMOQW152, or Equal.
- 3.1.48 **Contract Item #48** – Larsen 450-470MHz unity gain ¼ wave chrome pre-tuned antenna. Larsen Product Number NMOQW450, or Equal.

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- 3.1.49 Contract Item #49** – Larsen NMO mount for Motorola-style mobile antennas of 0-1000MHz. Nickel-plated stainless steel permanent mount is for a ¼ inch hole in mounting surfaces. Includes 17 feet of RG58/U cable and mini UHF connector. Thread size is 1-1/8 inch – 18, Larsen Product Number NMOKMPL, or Equal.
- 3.1.50 Contract Item #50** – Larsen Dual-band mobile cellular antenna. NMO antenna includes a ¾-inch hole mount. Includes 17 feet of RG58/U dual-shield cable with FME female connector, Larsen Product Number NMOC/P3EUDFME, or Equal.
- 3.1.51 Contract Item #51** – Ripley hole saw for installing permanent mount mobile antennas. Makes ¾" hole and limits depth to 1/8". Fits 3/8" or larger electric drills. Includes all tools required for equipping to drill (eg, 1/8" Allen Key), Ripley Product Number HSK19, or Equal.
- 3.1.52 Contract Item # 52** – Ripley replacement blades for HSK19 hole saw (item#51). 2 blades per package, Ripley Product Number SB-89, or Equal.
- 3.1.53 Contract Item #53** – Fluke Networks TS22A Phone line test set 1-way amplified speaker. Two audio levels for hands free listening and for use with voice response systems. Tests lines for dial tone with talk, monitor, and dial functions in tone or pulse operation. Features last number redial. Fluke Networks Product Number TS22A, or Equal.
- 3.1.54 Contract Item #54** – Belden RG213/U Coaxial cable with 97-percent coverage braided shield. Single bare stranded copper center. Priced/foot, Belden Product Number Belden 8267, or Equal.
- 3.1.55 Contract Item #55** – RF Industries UHF male connector for RG8, RG8A & RG213 cables. Silver plated shell, silver plated body. Teflon insulation. Solder pin and braid, RF Industries Product Number PL259, or Equal.
- 3.1.56 Contract Item #56** – CPI COMM 16 frequency telephone style remote. Uses sequential tone format. Front panel PTT and status updating. Includes full duplex option. Black. EIA standard tone system. Monitor, intercom, front panel PTT, crossmute, and parallel status updating must be

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standard features. CPI COMM Product Number TR10-16F-FD-BK, or Equal.

- 3.1.57 Contract Item #57** – RF Industries Universal crimp tool kit w/ (2) frames & (2) dies: (1) for RG58/U, 59/U, 142/U, 8X, and Proflex; and (2) for RG8/U, 213/U, 214/U; and Belden 9913, RF Industries Product Number RFA-4006, or Equal.
- 3.1.58 Contract Item #58** – DuraComm Corp. Rack mount switching power supply for 19 inch racks. Uses 110 or 220 VAC input to produce 48 VDC output and features 25 amps peak or 20 amps continuous current. Thermostatically controlled fans provide cooling. Has electronic and fuse output protection. N+1 redundancy, DuraComm Corp. Product Number RM2548, or Equal.
- 3.1.59 Contract Item #59** – DuraComm. Rack mount switching power supply for 19 inch racks. Uses 110 or 220 VAC input to produce 13.8 VDC output and features 50 amps peak or 36 amps continuous current. Thermostatically controlled fans provide cooling. Has electronic and fuse output protection. N+1 redundancy, DuraComm Corp. Product Number RM5012, or Equal.
- 3.1.60 Contract Item #60** – Bussman fuse, GMT, 1 AMP, 10 pack, Bussmann Product Number BK/GMT-1A, or Equal.
- 3.1.61 Contract Item #61** – Bussman fuse, GMT, 1.5 AMP, 10 pack, Bussman Product Number BK/GMT-1-1/2A, or Equal.
- 3.1.62 Contract Item #62** – Bussman fuse, GMT, 2 AMP, 10 pack, Bussman Product Number BK/GMT-2A, or Equal.
- 3.1.63 Contract Item #63** – Bussman fuse, GMT, 3 AMP, 10 pack, Bussman Product Number BK/GMT-3A, or Equal.
- 3.1.64 Contract Item #64** – Bussman fuse, GMT, 4 AMP, 10 pack, Bussman Product Number BK/GMT-4A, or Equal.

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- 3.1.65 **Contract Item #65** – Bussman fuse, GMT, 5 AMP, 10 pack, Bussman Product Number BK/GMT-5A, or Equal.
- 3.1.66 **Contract Item #66** – Bussman fuse, GMT, 7.5 AMP, 10 pack, Bussman Product Number BK/GMT-7-1/2A, or Equal.
- 3.1.67 **Contract Item #67** – Bussman fuse, GMT, 10 AMP, 10 pack, Bussman Product Number Item BK/GMT-10A, or Equal.
- 3.1.68 **Contract Item #68** – Bussman fuse, GMT, 15 AMP, 10 pack, Bussman Product Number Item BK/GMT-15A, or Equal.
- 3.1.69 **Contract Item #69** – 3M SCOTCH “88” vinyl plastic electrical tape. 2” x 36 yards. 1 roll per box. Black. For extreme temperature conditions. SUPER 88-2 INCH, 3M Products Part Number SUPER 88-2 INCH, or equal.
- 3.1.70 **Contract Item #70** - 3M SCOTCH “88” vinyl plastic electrical tape. 1-1/2” x 44’. 1 roll per carton. Black. For extreme temperature conditions. 88SUPER 1-1/2” x 44, 3M Products Part Number 88SUPER 1-1/2”x44, or Equal.
- 3.1.71 **Contract Item #71** – 3M Temflex vinyl plastic electrical tape. Made with PVC tape. Will withstand up to 80C/176F. 3/4” x 60’ roll. Black, 3M Products Part Number 1700 TEMFLEX-1, or Equal.
- 3.1.72 **Contract Item #72** – Amphenol UG-27A Type N female to Type N male angle adapter with mitered body. Amphenol RF Part Number 082-64, or Equal.
- 3.1.73 **Contract Item #73** – RF Industries Mini-UHF male to UHF female adapter, Amphenol RF Product Number RFU-621, or Equal.
- 3.1.74 **Contract Item #74** – Amphenol UG-146 UHF female to Type N male adapter, Amphenol RF Product Number 000-4400, or Equal.
- 3.1.75 **Contract Item #75** - Amphenol. PL-258 UHF female to UHF female barrel straight adapter, Amphenol Product Number 083-1J, or Equal.

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- 3.1.76 **Contract Item #76** - RF Industries. Double UHF male adapter, RF Industries Product Number RFU-538, or Equal.

4. CONTRACT AWARD:

- 4.1 **Contract Award:** The Contract is intended to provide Agencies with a purchase price on **all** Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest Total Overall Cost, as shown on the Pricing Pages.
- 4.2 **Pricing Pages:** Vendor should complete the Bid Pricing Pages by filling out the Unit Price and Extended Price for each item, which must include freight. Vendor should complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Notwithstanding the foregoing, the Purchasing Division may correct errors at its discretion. Vendor should type or electronically enter the information into the Pricing Pages to prevent errors in the evaluation.

The Pricing Pages were created as a Microsoft Excel document and Vendor can request an electronic copy for bid purposes by sending an email request to the following address:

Bob Kilpatrick, Senior Buyer
(304) 558-0067
Robert.p.kilpatrick@wv.gov

5. ORDERING AND PAYMENT:

- 5.1 **Ordering:** Vendor shall accept orders by regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Any on-line ordering system must have the capability to restrict prices and available items to conform to the Catalog originally submitted with this RFQ. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.

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- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

- 6.1 Delivery Time:** Vendor shall deliver standard orders within thirty (30) working days after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.
- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location listed on order. Vendor shall include the cost of standard order delivery charges in its bid pricing and is not permitted to charge the Agency separately for such delivery.
- 6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

REQUEST FOR QUOTATION
BPH14114 Antennas and Related Equipment

7. MISCELLANEOUS:

- 7.1 No Substitutions:** Vendor shall supply only Contract Items submitted in response to the RFQ unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 7.2 Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 7.3 Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 7.4 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: Samantha Bates
Telephone Number: 800-316-2830
Fax Number: 410-527-0005
Email Address: contracts@tessco.com

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

TESSCO Incorporated
(Company)


(Authorized Signature)

Cynthia L King, Vice President & Treasurer
(Representative Name, Title)

800-316-2830 410-527-0005
(Phone Number) (Fax Number)

3/24/14
(Date)

RFQ No. BPH14114STATE 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.

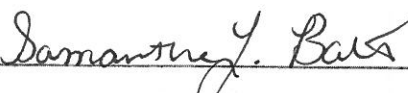
"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership 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: TESSCO IncorporatedAuthorized Signature:  Date: 3/24/14State of MarylandCounty of Harford, to-wit:Taken, subscribed, and sworn to before me this 24th day of March, 2014.My Commission expires January 17, 2017.

AFFIX SEAL HERE

NOTARY PUBLIC



Purchasing Affidavit (Revised 07/01/2012)

SAMANTHA L. BATES
NOTARY PUBLIC
HARFORD COUNTY
MARYLAND
MY COMMISSION EXPIRES JANUARY 17, 2017

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

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

1. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

_____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

_____ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% resident vendor preference for the reason checked:

_____ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

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) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

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

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

Bidder: TESSCO Incorporated

Signed: _____

Date: 3/24/14

Title: Vice President & Treasurer



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

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BPH14114

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ADDRESS CORRESPONDENCE TO ATTENTION OF:

BOB KILPATRICK
304-558-0067

RFQ COPY

TYPE NAME/ADDRESS HERE

TESSCO Incorporated
11126 McCormick Road
Hunt Valley, MD 21031

HEALTH AND HUMAN RESOURCES
BPH - OFFICE OF EMERGENCY
MEDICAL SERVICES
VARIOUS LOCALES AS INDICATED
ON PURCHASE ORDER

DATE PRINTED

03/20/2014

BID OPENING DATE: 03/26/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
ADDENDUM ISSUED TO:						
1. PROVIDE RESPONSES TO QUESTIONS SUBMITTED REGARDING THE ORIGINAL SOLICITATION. QUESTIONS AND ANSWERS ARE ATTACHED.						
2. TO PROVIDE ADDENDUM ACKNOWLEDGEMENT. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.						
3. TO PROVIDE REVISED PRICING PAGE						
*****END OF ADDENDUM NO. 1*****						

SIGNATURE	Cynthia L King	TELEPHONE	800-316-2830	DATE	3/24/14
TITLE	Vice President & Treasurer	FEIN	52-1868893	ADDRESS CHANGES TO BE NOTED ABOVE	

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

SOLICITATION NUMBER: BPH14114**Addendum Number: 1**

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- ☐ Modify bid opening date and time
- ☒ Modify specifications of product or service being sought
- ☒ Attachment of vendor questions and responses
- ☐ Attachment of pre-bid sign-in sheet
- ☐ Correction of error
- ☒ Other

Description of Modification to Solicitation:

Addendum #1 issued to publish vendor submitted questions and Agency responses, revision of specifications (for Item 3.1.5, 3.1.11 and 3.1.12), and to provide a revised Pricing Page.

NO OTHER CHANGES

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, 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.

ATTACHMENT A

ADDENDUM #1 – BPH14114

To respond to Vendor question; revise specification Sections 3.1.5, 3.1.11, and 3.1.12; and provide Revised Exhibit A – Pricing Page that reflects revised specification sections.

Vendor will use Revised Exhibit A - Pricing Pages provided with this Addendum for submitting bid.

Vendor Question #1:

Commscope is in the process of discontinuing the LDF50-50A and wanting to move customers over to the AVA5-50FX. Please advise if OK to sub on the bid. If you approve, the AVA5 cable we will need to use different 7/8 connectors over the L5TNM and L5TNF connectors.

Agency Response to Vendor Question #1:

Sections 3.1.5, 3.1.11, and 3.1.12 of the RFQ specifications are revised as follows:

SECTION 3.1.5 REVISION:

From: 3.1.5 Contract Item # 5 – CommScope 7/8-inch standard coaxial cable with foam dielectric with 10-inch bending radius. Maximum frequency capacity is 5 GHz, CommScope Part Number LDF5-50A, or Equal.

To: 3.1.5 Contract Item # 5 – Andrew 7/8-inch coaxial cable, corrugated copper, Andrew Part Number AVA5-50FX, or Equal.

SECTION 3.1.11 REVISION:

From: 3.1.11 Contract Item # 11 – CommScope Andrew Type N male connector (L5TNM-PS) for LDF5-50, 7/8' foam Helix cable. Trimetal plated body and Silver plated pin, CommScope Part Number L5TNM-PS, or Equal.

To: 3.1.11 Contract Item # 11 – Andrew/CommScope Type N male EZ Fit connector that is compatible to 7/8" coaxial cable described in Section 3.1.5, Andrew/CommScope Part Number 78EZNM, or Equal.

SECTION 3.1.12 REVISION:

From: 3.1.12 Contract Item # 12 – CommScope Andrew Type N female connector (L5TNF-PS) for LDF5-50, 7/8' foam Helix cable. Trimetal plated body and silver plated pin, CommScope Part Number L5TNF-PS, or Equal.

To: 3.1.12 Contract Item # 12 – Andrew/CommScope Type N female EZ Fit connector that is compatible to 7/8" coaxial cable described in Section 3.1.5, Andrew/CommScope Part Number 78EZNF, or Equal.

REVISED EXHIBIT A: RFQ# BPH14114: PRICING PAGE

RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
1	3.1.2	CommScope 450-470 MHz 6.6/7.8dB Exposed Dipole Omni Antenna, CommScope Part Number DB408-B, or Equal		49	Each	\$788.33	\$38,628.17
2	3.1.2	CommScope 150-160 MHz 6/9dB Exposed Dipole Omni Antenna, CommScope Part Number DB-264A, or Equal		19	Each	\$1,283.33	\$24,383.27
3	3.1.3	CommScope S-300 Stand-off Bracket 36" with a 1-7/8" O.D. x 36" antenna mounting pipe. Includes mounting hardware for a maximum of 3.5" OD tower legs, CommScope Part Number S-300, or Equal		3	Each	\$152.40	\$457.20
4	3.1.4	CommScope Adapter clamp set for up to 6.5" 60 degree, straight or tapered angle legs, CommScope Part Number AD-P60-SCP, or Equal		3	Each	\$125.37	\$376.11
5	3.1.5	Andrew 7/8-inch coaxial cable, corrugated copper, Andrew Part Number AVA5-50FX, or Equal		18150	Foot	\$3.91	\$70,966.50
6	3.1.6	CommScope 1/2-inch foam dielectric 50 Ohm coaxial cable with 5-inch bending radius to prevent kinking. Maximum frequency capacity is 8.8 GHz, CommScope Part Number LDF4-50A, or Equal		7260	Foot	\$1.73	\$12,559.80
7	3.1.7	CommScope Snap-In hangers for 7/8" corrugated cable, 10 pack. The hanger installs in 3/4" holes in support structures. Stainless steel construction, CommScope Part Number SSH-78, or Equal		611	Packs of 10	\$33.30	\$20,346.30
8	3.1.8	CommScope SSH-12 "SnapStak" Stackable Snap-In Hangers (1/2"), 10 pack, CommScope Part Number SSH-12, or Equal		247	Packs of 10	\$19.67	\$4,760.14
9	3.1.9	CommScope Andrew "SureGround" Grounding Kit for 7/8" Aluminum or Copper, corrugated or smooth cable w/48" #6 tinned copper ground wire lead. Includes 2 hole lugs and hardware, CommScope Part Number SG78-12B2U, or Equal		196	Each	\$19.67	\$3,855.32
10	3.1.10	CommScope Andrew Grounding kit for SFX-500 flex cable. Includes 3-foot #6 AWG cable with 3/4" and universal 3/8" two-hole lugs, CommScope Part Number SFX-SEK, or Equal	MPN: GK-SUNV - Specifications Included	76	Each	\$8.59	\$652.84
11	3.1.11	Andrew/CommScope Type N male EZ Fit connector that is compatible to 7/8" coaxial cable described in Section 3.1.5, Andrew/CommScope Part Number 78EZNM, or Equal		69	Each	\$23.71	\$1,635.99

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RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
12	3.1.12	Andrew/CommScope Type N female EZ Fit connector that is compatible to 7/8" coaxial cable described in Section 3.1.5, Andrew/CommScope Part Number 78EZNF, or Equal		49	Each	\$23.71	\$1,161.79
13	3.1.13	CommScope Andrew Type N Male Positive Stop for HL4RP-50, AL4RPV-50 and LDF4-50A. Self-flare with self-captivated silver-plated center pin. Tri-metal plated body, CommScope Part Number L4TNM-PSA, or Equal		27	Each	\$16.03	\$432.81
14	3.1.14	CommScope Andrew Type N Female Positive Stop for HL4RP, AL4RPV and LDF4. Self-flare with self-captivated silver-plated center pin. Tri-metal plated body, CommScope Part Number L4TNF-PSA, or Equal		19	Each	\$16.03	\$304.57
15	3.1.15	Polyphaser 125-1000MHz general coverage flange-mounted protector. 50,000 amps surge, <200nJ throughput energy. Power rating based on frequency. Type N female connectors, Polyphaser Part Number IS-50NX-C2, or Equal		96	Each	\$43.90	\$4,214.40
16	3.1.16	CommScope Andrew FSJ4-50B 1/2-inch 50 Ohm coaxial cable. Spiral copper corrugated outer conductor, 1.25 inch bending radius. Copper-clad aluminum center conductor. Maximum frequency capacity is 10.2 GHz, CommScope Part Number FSJ4-50B, or Equal		2880	Foot	\$2.45	\$7,056.00
17	3.1.17	CommScope Andrew Type N Male Connector for FSJ4-50B superflexible cable. Hex head, captivated center pin. Silver body & gold plated PIN. Version 2, CommScope Part Number F4PNMV2-HC, or Equal		192	Each	\$17.93	\$3,442.56
18	3.1.18	Belden 83242 RG142B/U Teflon Plenum Cable. Dual silver shields for 98 percent coverage, Belden Part Number 83242 0011000, or Equal		2505	Foot	\$3.54	\$8,867.70
19	3.1.19	Emerson BNC male crimp connector for RG-55, 142, 223 and 400 cable, Emerson Part Number CPMC-88-13, or Equal		85	Each	\$1.43	\$121.55
20	3.1.20	RF Industries Type N male connector for RG55, RG223, RG142, Belden 8219 & 9907 cable. Silver plated body, gold pin. Crimp center pin, crimp on braid, RF Industries Part#RFN-1005-3CI, or Equal		85	Each	\$3.58	\$304.30
21	3.1.21	Wireless Solutions 4" boot assembly kit, w/ 1 hole for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-1, or Equal		5	Each	\$14.07	\$70.35
22	3.1.22	Wireless Solutions 4" boot assembly kit w/ 2 holes for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-2, or Equal		5	Each	\$13.75	\$68.75

RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
23	3.1.23	Wireless Solutions 4" boot assembly kit w/ 3 holes for 7/8" corrugated coax, Wireless Solutions Part Number WS-B478-3, or Equal		19	Each	\$13.75	\$261.25
24	3.1.24	Wireless Solutions 4" boot assembly kit w/3 holes for 1/2" corrugated coax, Wireless Solutions Part Number WS-B412-3, or Equal		19	Each	\$14.75	\$280.25
25	3.1.25	Wireless Solutions 4" boot assembly kit w/ 1 hole for 1/2" corrugated coax, Wireless Solutions Part Number WS-B412-1, or Equal		5	Each	\$14.78	\$73.90
26	3.1.26	TerraWave 2.4GHz 19 dBi Panel Antenna with Integrated N-Style Jack Connector. Includes Articulating Pole Mount, TerraWave Part Number T24190PI0006GT, or Equal		3	Each	\$73.72	\$221.16
27	3.1.27	TerraWave 4.9-5.85 GHz Parabolic grid antenna, 30 dBi, 950MHz bandwidth. Includes articulating mast mount and integrated N-Style Jack Connector, TerraWave Part Number T49300G10006, or Equal		3	Each	\$174.88	\$524.64
28	3.1.28	General Dynamics Gabriel 5.25-5.85GHz Flat Directional Panel Antenna with N-Type female termination and 18.4 dBi gain @ midband. .5ft. flat panel diagonal, General Dynamics Part Number DFPS.5-52, or Equal		3	Each	\$184.63	\$553.89
29	3.1.29	RF Industries interseries adapter kit. 30 piece combination of male and female BNC, TNC, N, SMA, UHF, and mini-UHF connectors. With zippered case, RF Industries Part#RFA-4024, or Equal		5	Each	\$133.17	\$665.85
30	3.1.30	Larsen low profile 26 dBi black 5V GPS antenna. Includes bolt mount for 1/4" hole and 17' RG174 cable with SMA connector, Larsen Part Number GPSDM08, or Equal		5	Each	\$36.11	\$180.55
31	3.1.31	PCTEL rubber hole plug for 3/8" hole. 1-1/4" overall diameter. Package of 25, PCTEL Part Number K37/25, or Equal		12	Packs of 25	\$26.95	\$323.40
32	3.1.32	PCTEL rubber hole plug for 1/4" hole. 1-1/2" overall diameter. Package of 25, PCTEL Part Number K35/25 or, Equal		12	Packs of 25	\$26.76	\$321.12
33	3.1.33	PCTEL rubber hole plug for 7/8" hole. 1-1/2" overall diameter. Package of 25, PCTEL Part Number K39/25, or Equal		12	Packs of 25	\$26.51	\$318.12

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RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
34	3.1.34	Adtran Tracer 6410 Modular Microwave Radio. 2.4GHz Series Chassis only. Plan A Frequency Channel plan. Designed for DC power, Adtran Part Number 12806410L2A, or Equal	MPN: E240031 - Specifications Attached	3	Each	\$4,973.50	\$14,920.50
35	3.1.35	Adtran Tracer 6410 Modular Microwave Radio. 2.4GHz Series Chassis only. Plan B Frequency Channel plan. Designed for DC power, Adtran Part Number 12806410L2B, or Equal	MPN: E240031 - Specifications Attached	3	Each	\$4,973.50	\$14,920.50
36	3.1.36	Adtran Tracer 6420 Series Modular Microwave radio. Chassis only 5.8GHz HP 24-dbm Output. Plan A Frequency Channel plan. Designed for DC power, Adtran Part Number 12806420L2A, or Equal	MPN: E500221 - Specifications Attached	3	Each	\$2,520.00	\$2,520.00
37	3.1.37	Adtran Tracer 6420 Series Modular Microwave radio. Chassis only 5.8 GHz HP 24-dbm Output. Plan B Frequency Channel plan. Designed for DC power, Adtran Part Number 12806420L2B, or Equal	MPN: E500221 - Specifications Attached	3	Each	\$2,520.00	\$2,520.00
38	3.1.38	Adtran Quad T1 I (Module only) Quad T1 interface module. Adtran Product Number 1280040L1, or Equal	MPN: K016240031 - Specifications Attached	6	Each	\$400.00	\$2,400.00
39	3.1.39	Adtran 4-port ethernet bridge/layer 2 switch - For Adtran microwave ethernet module only. Quad Ethernet switch module 1, Adtran Product Number 1280050L1, or Equal	Included in E240031 & E500221	12	Each	N/A	N/A
40	3.1.40	Adtran 1280650L1 external AC power supply for TRACER 4000/5000/6000 series license-free microwave radios. 100-250 volts AC input, 48 volts, 1.2 amps DC output (57 watts), Adtran Product Number 1280650L1, or Equal	Included in E240031 & E500221	12	Each	N/A	N/A
41	3.1.41	CommScope AVA6-50 1-1/4" Foam Helix cable average power @ 450MHz should be 3.59kW. Priced/foot, CommScope Product Number AVA6-50, or Equal		1000	Foot	\$7.96	\$7,960.00
42	3.1.42	CommScope Andrew AVA7-50 1-5/8" foam dielectric cable, 50-Ohm, annular corrugated copper outer conductor, corrugated copper tube inner conductor. 20" bending radius. Average power @ 450MHz should be 7.18kW. Price/foot, CommScope Product Number AVA7-50, or Equal		1000	Foot	\$10.53	\$10,530.00
43	3.1.43	CommScope Andrew Type N Male series EZfit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. Type N Male, CommScope Product Number 114E2NM, or Equal		25	Each	\$68.15	\$1,703.75
44	3.1.44	CommScope Andrew Type N Female series EZfit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. Type N Female, CommScope Product Number 114E2NF, or Equal		25	Each	\$68.15	\$1,703.75

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RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
45	3.1.45	CommScope Andrew 7/16 DIN Male series EZ fit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. DIN Male, CommScope Product Number 114EZDM, or Equal		25	Each	\$64.90	\$1,622.50
46	3.1.46	CommScope Andrew 7/16 DIN Female series EZ fit connector for 1-1/4" HELIAX AVA6-50 and FXL cables. Captivated 1480-AW Trimetal Silver. DIN Female, CommScope Product Number 114EZDF, or Equal		25	Each	\$64.90	\$1,622.50
47	3.1.47	Larsen 152-162MHz unity gain 1/4 wave chrome pre-tuned antenna. Larsen Product Number NMOQW152, or Equal		20	Each	\$7.91	\$158.20
48	3.1.48	Larsen 450-470MHz unity gain 1/4 wave chrome pre-tuned antenna. Larsen Product Number NMOQW450, or Equal		20	Each	\$7.86	\$157.20
49	3.2.49	Larsen NMO mount for Motorola-style mobile antennas of 0-1000MHz. Nickel-plated stainless steel permanent mount is for a 3/4 inch hole in mounting surfaces. Includes 17 feet of RG58/U cable and mini UHF connector. Thread size is 1-1/8 inch - 18, Larsen Product Number NMOKMPL, or Equal		40	Each	\$12.85	\$514.00
50	3.1.50	Larsen Dual-band mobile cellular antenna. NMO antenna includes a 3/4-inch hole mount. Includes 17 feet of RG58/U dual-shield cable with FME female connector, Larsen Product Number NMOC/P3EUDFME, or Equal		20	Each	\$30.12	\$602.40
51	3.1.51	Ripley hole saw for installing permanent mount mobile antennas. Makes 3/4" hole and limits depth to 1/8". Fits 3/8" or larger electric drills. Includes all tools required for equipping to drill (eg. 1/8" Allen Key), Ripley Product Number HSK19, or Equal		15	Each	\$33.04	\$495.60
52	3.1.52	Ripley replacement blades for HSK19 hole saw (item#51). 2 blades per package, Ripley Product Number SB-89, or Equal		15	Pack of 2	\$13.09	\$196.35
53	3.1.53	Fluke Networks TS22A Phone line test set 1-way amplified speaker. Two audio levels for hands free listening and for use with voice response systems. Tests lines for dial tone with talk, monitor, and dial functions in tone or pulse operation. Features last number redial. Fluke Networks Product Number TS22A, or Equal		12	Each	\$327.32	\$3,927.84
54	3.1.54	Belden RG213/U Coaxial cable with 97-percent coverage braided shield. Single bare stranded copper center. Priced/foot, Belden Product Number Belden 8267, or Equal		1000	Foot	\$1.02	\$1,020.00

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RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
55	3.1.55	RF Industries UHF male connector for RG8, RG8A & RG213 cables. Silver plated shell, silver plated body. Teflon insulation. Solder pin and braid, RF Industries Product Number PL259, or Equal	MPN: RFU-501 - Specifications Attached	100	Each	\$2.31	\$231.00
56	3.1.56	CPI COMM 16 frequency telephone style remote. Uses sequential tone format. Front panel PTT and status updating. Includes full duplex option. Black. EIA standard tone system. Monitor, intercom, front panel PTT, crossmute, and parallel status updating must be standard features. CPI COMM Product Number TR10-16F-FD-BK, or Equal		10	Each	\$444.99	\$4,449.90
57	3.1.57	RF Industries Universal crimp tool kit w/ (2) frames & (2) dies: (1) for RG58/U, 59/U, 142/U, 8X, and Proflex; and (2) for RG8/U, 213/U, 214/U; and Belden 9913, RF Industries Product Number RFA-4006, or Equal		6	Each	\$153.84	\$923.04
58	3.1.58	DuraComm Corp. Rack mount switching power supply for 19 inch racks. Uses 110 or 220 VAC input to produce 48 VDC output and features 25 amps peak or 20 amps continuous current. Thermostatically controlled fans provide cooling. Has electronic and fuse output protection. N+1 redundancy, DuraComm Corp. Product Number RM2548, or Equal		5	Each	\$625.00	\$3,125.00
59	3.1.59	DuraComm, Rack mount switching power supply for 19 inch racks. Uses 110 or 220 VAC input to produce 13.8 VDC output and features 50 amps peak or 36 amps continuous current. Thermostatically controlled fans provide cooling. Has electronic and fuse output protection. N+1 redundancy, DuraComm Corp. Product Number RM5012, or Equal		5	Each	\$350.00	\$1,750.00
60	3.1.60	Bussman fuse, GMT, 1 AMP, 10 pack, Bussman Product Number BK/GMT-1A, or Equal		24	Packs of 10	\$11.50	\$276.00
61	3.1.61	Bussman fuse, GMT, 1.5 AMP, 10 pack, Bussman Product Number BK/GMT-1-1/2A, or Equal		24	Packs of 10	\$11.90	\$285.60
62	3.1.62	Bussman fuse, GMT, 2 AMP, 10 pack, Bussman Product Number BK/GMT-2A, or Equal		24	Packs of 10	\$11.50	\$276.00
63	3.1.63	Bussman fuse, GMT, 3 AMP, 10 pack, Bussman Product Number BK/GMT-3A, or Equal		24	Packs of 10	\$11.50	\$276.00
64	3.1.64	Bussman fuse, GMT, 4 AMP, 10 pack, Bussman Product Number BK/GMT-4A, or Equal		24	Packs of 10	\$11.90	\$285.60
65	3.1.65	Bussman fuse, GMT, 5 AMP, 10 pack, Bussman Product Number BK/GMT-5A, or Equal		24	Packs of 10	\$11.50	\$276.00
66	3.1.66	Bussman fuse, GMT, 7.5 AMP, 10 pack, Bussman Product Number BK/GMT-7-1/2A, or Equal		24	Packs of 10	\$11.50	\$276.00

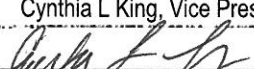
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RFQ Item#	Spec Section	Description	Brand/Model Quoted (if alternate)	Estimated Annual Quantity	UOM	Unit Price	Extended Price
67	3.1.67	Bussman fuse, GMT, 10 AMP, 10 pack, Bussman Product Number Item BK/GMT-10A, or Equal		24	Packs of 10	\$11.50	\$276.00
68	3.1.68	Bussman fuse, GMT, 15 AMP, 10 pack, Bussman Product Number Item BK/GMT-15A, or Equal		24	Packs of 10	\$11.50	\$276.00
69	3.1.69	3M SCOTCH "88" vinyl plastic electrical tape. 2" x 36 yards. 1 roll per box. Black. For extreme temperature conditions. SUPER 88-2 INCH, 3M Products Part Number SUPER 88-2 INCH, or equal		10	Each	\$21.53	\$215.30
70	3.1.70	3M SCOTCH "88" vinyl plastic electrical tape. 1-1/2" x 44'. 1 roll per carton. Black. For extreme temperature conditions. 88SUPER 1-1/2" x 44, 3M Products Part Number 88SUPER 1-1/2"x44, or Equal		10	Each	\$5.58	\$66.96
71	3.1.71	3M Temflex vinyl plastic electrical tape. Made with PVC tape. Will withstand up to 80C/176F. 3/4" x 60' roll, Black, 3M Products Part Number 1700 TEMFLEX-1, or Equal		100	Each	\$0.89	\$89.00
72	3.1.72	Amphenol UG-27A Type N female to Type N male angle adapter with mitered body. Amphenol RF Part Number 082-64, or Equal		25	Each	\$28.99	\$724.75
73	3.1.73	RF Industries Mini-UHF male to UHF female adapter, Amphenol RF Product Number RFU-621, or Equal		25	Each	\$4.16	\$104.00
74	3.1.74	Amphenol UG-146 UHF female to Type N male adapter, Amphenol RF Product Number 000-4400, or Equal		25	Each	\$16.18	\$404.50
TOTAL OVERALL COST (Add all Extended Prices)							\$302,552.29

Vendors should provide the brand and model/part number (where indicated) when bidding items of alternative manufacturer to those established in the specifications and on this pricing page. When bidding alternates, bidders should submit with their bid documentation which denotes how the alternate meets the specifications of the established brand and model/part number. Bidders should multiply bid Unit Price times the listed Estimated Annual Quantity to calculate Extended Price for each RFQ item#.

VENDOR SECTION

Vendor Name:	TESSCO Incorporated
Physical Address:	11126 McCormick Road, Hunt Valley, MD 21031
Remit-to Address:	PO Box 102885, Atlanta, GA 30368
Telephone:	800-316-2830
Fax:	410-527-0005
Email:	bid@tessco.com
Authorized Vendor Representative (print name):	Cynthia L King, Vice President & Treasurer
Authorized Vendor Representative Signature:	

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: BPH14114

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 type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input 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 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.

TESSCO Incorporated

Company


Authorized Signature

3/24/14

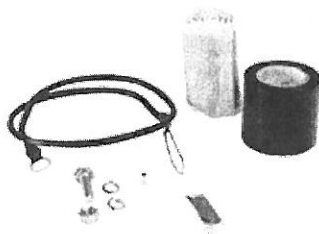
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.
Revised 6/3/2012

Product Specifications

COMMScope®

POWERED BY



GK-SUNV

Universal Grounding Kit for 1/4 in through 5/8 in corrugated coaxial cable

Dimensions

Nominal Size	1/2 in 1/4 in 3/8 in 5/8 in
Bonding Conductor Length	609.6 mm 24 in
Cable Jacketing Removal Length, maximum	59.1 mm 2.3 in
Cable Jacketing Removal Length, minimum	55.9 mm 2.2 in
Compatible Diameter, maximum	15.240 mm 0.600 in
Compatible Diameter, minimum	2.540 mm 0.100 in

Electrical Specifications

Current Handling	Tested to withstand 30,000 amps peak current surge
Current Handling Test Method	MIL-STD-1757
Grounding, Bonding and Shielding Test Method	MIL-STD-188-124A
Lightning Protection Test Method	IEC 1024-1

General Specifications

Cable Type	Corrugated Smoothwall
Grounding Kit Type	Universal Grounding Kits
Color	Black
Bonding Conductor Material	Copper
Bonding Conductor Wire Size	10 gauge
Bonding Conductor Jacketing Material	PE
Grounding Strap Material	Tinned copper
Includes	Grounding kit Hardware Lug One roll of 2 in PVC tape One roll of 24 in butyl rubber tape
Lug Attachment	Factory attached
Lug Type	One-hole lug
Package Quantity	1
Rivet Material	Copper
Weatherproofing Method	Butyl and electric tape

Mechanical Specifications

Blowing Rain Test Method	MIL-STD-810, Method 506
Corrosion Test Method	MIL-STD-1344, Method 1001
Freezing Rain/Icing Test Method	MIL-STD-810, Method 521
Humidity Test Method	MIL-STD-1344, Method 1002
Immersion Test Method	IEC 60529:2001, IP68
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)

Product Specifications



GK-SUNV



Storage Temperature	-40 °C to +80 °C (-40 °F to +176 °F)
Thread Size	M8
UV Resistance Test Method	MIL-STD-810, Method 505
Vibration Test Method	MIL-STD-202, Method 214

Packed Dimensions

Height	152.4 mm 6.0 in
Length	57.2 mm 2.3 in
Shipping Weight	0.28 kg 0.62 lb
Width	76.2 mm 3.0 in

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

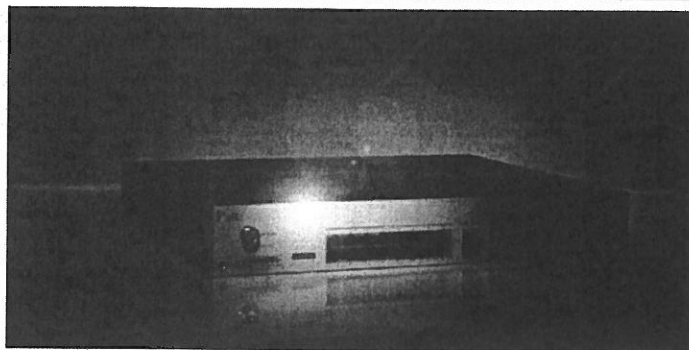
- 9905-71 — Black 2 in PVC Tape, 20 ft
- 42615-10 — Butyl Rubber Tape, 24 in

* Footnotes

Grounding, Bonding and Shielding Test Method	Military Standard for Grounding, Bonding, and Shielding: Bond Resistance Requirement of a Maximum dc resistance of 0.001 ohm
Lightning Protection Test Method	Protection Against Lightning Electromagnetic Impulse, Table 1—Protection Level III–IV, 1995-02



EX-2.4i Series



All-Indoor, Carrier-Class 2.4 GHz TDD Radio Systems for Low and Medium Capacity Ethernet and TDM Applications

The EX-2.4i series of all-indoor digital microwave radios is the first family of carrier-class TDD radios available in the 2.4 GHz ISM band. The EX-2.4i line delivers up to 216 Mbps of aggregate user throughput and up to sixteen T1/E1s at distances of up to 30 miles with five 9s availability. Featuring native TDM and native Ethernet transport and full software configurability and upgradeability, the EX-2.4i series was designed to meet demanding backhaul requirements of enterprise organizations and service providers seeking the accessibility benefits of an all-indoor configuration.



Carrier-class TDD. The EX-2.4i series radios combine native TDM and native Ethernet transport with low, fixed latency to deliver guaranteed throughput and service quality. Capacity can be allocated variably between TDM and Ethernet via software, while the selectable throughput symmetry control feature enables radio capacity to efficiently match asymmetric traffic requirements. Optional 1+1 monitored hot standby (MHS) protection provides full hardware redundancy.

Industry-leading Spectrum Management. The EX-2.4i radios include selectable channel bandwidth and 1 MHz tuning resolution, yielding up to eight non-overlapping frequency channels and up to 62 center frequencies of operation. These capabilities, combined with selectable modulation and superior system gain, provide unparalleled interference avoidance and transmission resiliency. A built-in spectrum analyzer is even included to accelerate deployment and simplify troubleshooting.

ExaltSync™ Synchronization. The ExaltSync technology embedded in the EX-2.4i series radios allows multiple radio systems to be collocated in close proximity without self-interference, minimizing antenna separation and ensuring reuse of scarce spectrum across all collocated systems.

Security, Management and Data Networking. The EX-2.4i radios deliver the highest data and management security available with optional 128- and 256-bit AES encryption and secure SNMP v3 management, together with enhanced fault management and diagnostic features. The 802.1Q VLAN option provides built-in network administration and security flexibility.



				
Primary Specifications		EX-2.4i Lite	EX-2.4i	EX-2.4i-16
Maximum Capacity ¹	TDM	4xT1/E1		16xT1/E1
	Ethernet (Aggregate)	100 Mbps	200 Mbps	
Frequency (GHz)		2.400-2.483		
Maximum Range ²		> 30 miles at 99.999% throughput availability		

¹ Please refer to the Exalt Throughput and Range Specification document for detailed capacity information.

² Distance based upon FCC regulations, average climate and terrain, 6' dish antennas, 3 dB transmission system losses at each end. Longer or shorter distances will apply for alternative antennas, country regulations, transmission system losses, path topologies and radio configurations. See Exalt's link budget and path planning tool to model your scenario.

Specifications	EX-2.4i Series				Specifications	EX-2.4i / EX-2.4i Lite	EX-2.4i-16
System					Physical		
Frequency Band (GHz)	2.400-2.483				Single-piece Indoor Unit (IDU)		
Tuning Resolution	1 MHz				Dimensions (H x W x D)		
Output Power (full power)	+27 dBm QPSK +24 dBm 16QAM				1RU 1.75 x 17 x 14 in 4.5 x 43.2 x 35.6 cm		
Output Power (min power)	+7 dBm				Operating Temperature		
Power Control Step Size	0.5 dB				-40 to +65 °C -40 to +149 °F		
Receiver Threshold (BER=10 ⁻⁴)	8 MHz	16 MHz	32 MHz	64 MHz	Full Spec Temperature		
QPSK	-88	-85	-82	-79	-25 to +60 °C -13 to +140 °F		
16QAM	-80	-77	-74	-71	Weight		
Non-overlapping Channels	8	5	2	1	9.5 lbs; 4.3 kg		
Maximum RSL	-25 dBm error-free 0 dBm no damage				Environmental		
Throughput Symmetry Control	5 modes 20/80, 80/20, 35/65, 65/35, 50/50				GR-1089-CORE intra-building		
Error Floor	10 ⁻¹²				Altitude		
Maximum Packet Size	1916 bytes				15,000 ft; 4.6 km		
Latency (T1/E1)	1ms, typical				Humidity		
Link Security	96-bit proprietary encryption 128-bit and 256-bit AES encryption ¹				95% non-condensing		
VLAN	802.1Q				Interfaces		
Management	HTTP GUI CLI/Telnet SNMP v1, 2c, v3				RF		
Compliance	FCC 15.247 IC RSS-210				N-type(F), impedance 50 ohm (x2)		
System Components					TDM T1/E1 Interfaces		
Complete Link	Two terminals with AC adapter & accessory kit				RJ48C/RJ45 (F) (x4)		
Single Terminal	One terminal with AC adapter & accessory kit				RJ48C/RJ45 (F) (x16)		
Accessory Kit	DC power connector, rack & grounding hardware (spare)				T1 Impedance		
AC Adapter	AC adapter (spare)				100 ohms, balanced		
¹ Software license key upgrade.					T1 Line Code		
					AMI, B8ZS, selectable per channel		
					T1 Data Rate		
					1.544 Mbps		
					T1 Compliance		
					ANSI T1.102-1987; ITU-T; G.823; GR-499-CORE		
					E1 Impedance		
					120 ohms, balanced		
					E1 Line Code		
					HDB3		
					E1 Data Rate		
					2.048 Mbps		
Compliance					CEPT-1; G.703; ITU-T-G.703		
Loopback Modes					Remote Internal; Remote External; Local Line		
Ethernet					RJ45 (F) (x2), auto-MDIX		
Interface Speed					10/100BaseT		
Duplex					Half, Full, Auto		
Compliance					802.3		
Console (Serial)					9-pin Sub-D (F)		
Interface Speed					9600 bps		
Compliance					EIA-574 (RS-232)		
Alarm					9-pin Sub-D (F)		
					Inputs (2) TTL/Closure		
					Outputs (2) Relay (Form C)		
ExaltSync Synchronization					RJ45 (F) Internal Sync, 1pps (GPS)		
DC Power					6-pin barrier strip		
Input Voltage					±20-60 VDC		
Consumption					<38.5W 48V: <0.8A, 24V: <1.6A		
AC Power Adapter					EIC to NEMA 5-15		
Input					100-240VAC, 1.5A		
Output					48VDC, 1.5A, 72W		

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Exalt Communications Inc.
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Campbell, CA 95008 USA

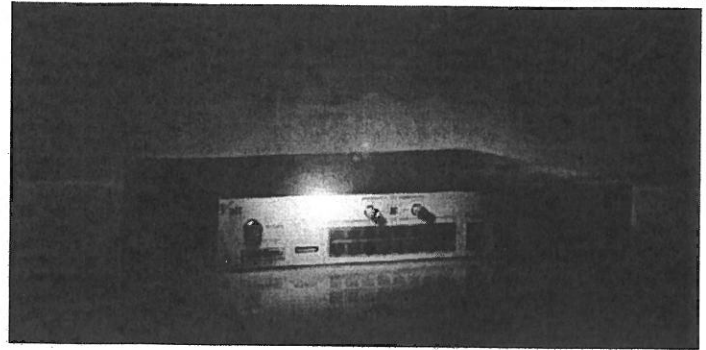
Phone: +1 (408) 871-1804
Toll free: (888) 91EXALT
sales@exaltcom.com

www.exaltcom.com

DS-2.4i-F-1108



EX-5i Series



All-Indoor, Carrier-Class, Tri-Band 5 GHz TDD Radio Systems for Low, Medium and High Capacity Ethernet and TDM Applications

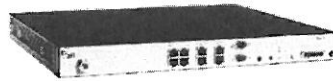
The EX-5i series of all-indoor digital microwave radios is the first family of carrier-class, tri-band TDD radios available in the 5.2 – 5.8 GHz license-exempt bands. The EX-5i line delivers up to 216 Mbps of aggregate user throughput and up to sixteen T1/E1s plus one DS3. Featuring native TDM and native Ethernet transport and full software configurability and upgradeability, the EX-5i series was designed to meet demanding backhaul requirements of enterprise organizations and service providers seeking the accessibility benefits of an all-indoor configuration.

Carrier-class TDD. The EX-5i series radios combine native TDM and native Ethernet transport with low, fixed latency to deliver guaranteed throughput and service quality. Capacity can be allocated variably between TDM and Ethernet via software, while the selectable throughput symmetry control feature enables radio capacity to efficiently match asymmetric traffic requirements. Optional 1+1 monitored hot standby (MHS) protection provides full hardware redundancy.

Industry-leading Spectrum Management. The EX-5i radios include selectable channel bandwidth and 1 MHz tuning resolution, yielding up to 54 non-overlapping frequency channels and up to 415 center frequencies of operation. These capabilities, combined with selectable modulation and superior system gain, provide unparalleled interference avoidance and transmission resiliency. A built-in spectrum analyzer is even included to accelerate deployment and simplify troubleshooting.

ExaltSync™ Synchronization. The ExaltSync technology embedded in the EX-5i series radios allows multiple radio systems to be collocated in close proximity without self-interference, minimizing antenna separation and ensuring reuse of scarce spectrum across all collocated systems.

Security, Management and Data Networking. The EX-5i radios deliver the highest data and management security available with optional 128- and 256-bit AES encryption and secure SNMP v3 management, together with enhanced fault management and diagnostic features. The 802.1Q VLAN option provides built-in network administration and security flexibility.



Primary Specifications		EX-5i Lite	EX-5i	EX-5i-16	EX-5i-DS3
Maximum Capacity ¹	TDM	4xT1/E1		16xT1/E1	16xT1/E1; 1xDS3
	Ethernet (Aggregate)	100 Mbps	200 Mbps		
Frequency (GHz)		Tri-band: 5.250-5.350, 5.470-5.725, 5.725-5.850			
Range ²		> 30 miles at 99.999% throughput availability			

¹ Please refer to the Exalt Throughput and Range Specification document for detailed capacity information.

² Distance based upon FCC regulations, average climate and terrain, 6" dish antennas, 3 dB transmission system losses at each end. Longer or shorter distances will apply for alternative antennas, country regulations, transmission system losses, path topologies and radio configurations. See Exalt's path planning tool to model your scenario.

Specifications	EX-5i Series	Specifications	EX-5i Lite	EX-5i	EX-5i-16	EX-5i-DS3
System		Physical				
Frequency Bands ¹ (GHz)	5.250-5.350 5.470-5.725 5.725-5.850	Dimensions (H x W x D)	1RU 1.75 x 17 x 14 in 4.5 x 43.2 x 35.6 cm		1.5RU 2.63 x 17 x 14 in 6.7 x 43.2 x 35.6 cm	
Tuning Resolution	1 MHz	Physical Configuration	Single-piece Indoor Unit (IDU)			
Output Power (full power)		Operating Temperature	-40 to +65 °C -40 to +149 °F			
5725-5850 MHz band	+24 dBm QPSK;+21 dBm 16QAM	Full Spec Temperature	-25 to +60 °C -13 to +140 °F			
5250-5350 MHz band ²	+13 dBm	Weight	9.5 lbs / 4.3 kg		12 lbs / 5.5 kg	
5470-5725 MHz band ²	+13 dBm	Environmental	GR-1089-CORE intra-building			
Output Power (min power)	Full power minus 20 dB	Altitude	15,000 ft; 4.6 km			
Power Control Step Size	0.5 dB	Humidity	95% non-condensing			
Receiver Threshold (BER=10 ⁻⁴)	8 MHz 16 MHz 32 MHz 64 MHz ³	Interfaces				
QPSK	-86 -83 -80 -77	RF	N-type(F), impedance 50 ohm			
16QAM	-78 -75 -72 -69	TDM T1/E1 Interfaces	RJ48C/RJ45 (F) (x4)	RJ48C/RJ45 (F) (x16)		
Non-overlapping Channels		T1 Impedance	100 ohms, balanced			
5.250-5.350 GHz	10 5 2 1	T1 Line Code	AMI, B8ZS, selectable per channel			
5.470-5.725 GHz	29 14 7 3	T1 Data Rate	1.544 Mbps			
5.725-5.850 GHz	15 7 3 1	T1 Compliance	ANSI T1.102-1987; ITU-T; G.823; GR-499-CORE			
Maximum RSL (QPSK)	-25 dBm error-free 0 dBm no damage	E1 Impedance	120 ohms, balanced			
Throughput Symmetry Control	5 modes 20/80, 80/20, 35/65, 65/35, 50/50	E1 Line Code	HDB3			
Error Floor	10 ⁻¹²	E1 Data Rate	2.048 Mbps			
Latency (T1/E1)	1ms, typical	E1 Compliance	CEPT-1; G.703; ITU-T-G.703			
Link Security	96-bit proprietary encryption 128-bit and 256-bit AES encryption ³	DS3 Impedance	- BNC (F) (2x) 75 ohms, unbalanced			
VLAN	802.1Q	DS3 Line Code	- B3ZS			
Management	HTTP GUI CLI/Telnet SNMP v1, 2c, v3	DS3 Data Rate	- 44.736 Mbps			
Compliance	FCC 15.247, FCC 15.407 EN 301-893, EN 302-502 EN 60-950, EN 301-489, IC RSS-210	DS3 Compliance	-ANSI T1.102-1993; GR-499-CORE			
System Components		Loopback Modes	Remote Internal; Remote External; Local Line			
Complete Link ⁴	Two terminals, each with AC adapter and accessory kit	Ethernet	RJ45 (F) (x2), auto-MDIX			
Single terminal	One terminal with AC adapter and accessory kit	Interface Speed	10/100BaseT			
Accessory Kit	DC power connector, rack and grounding hardware (spare)	Duplex	Half, Full, Auto			
AC Adapter	AC adapter (spare)	Compliance	802.3			
Exalt Capacity Expansion Kit	For 6 GHz Part 101 links (optional accessory kit)	Console (Serial)	9-pin Sub-D (F)			
		Interface Speed	9600 bps			
		Compliance	EIA-574 (RS-232)			
		Alarm	9-pin Sub-D (F)			
		Inputs (2)	TTL/Closure			
		Outputs (2)	Relay (Form C)			
		ExaltSync	RJ45 (F)			
		Synchronization	Internal Sync 1pps (GPS)			
		DC Power	6-pin barrier strip		6-pin barrier strip	
		Input Voltage	±20-60VDC		±20-60VDC	
		Consumption	<38.5W (48V:<0.8A, 24V:<1.6A)		<45W (48V: <0.9A, 24V: 1.8A)	
		AC Power Adapter	EIC to NEMA 5-15			
		Input	100-240VAC, 1.5A			
		Output	48VDC, 1.5A, 72W			

¹ Not all frequency bands are authorized or available for use in all countries.

² +24 dBm output power. Consult Exalt for availability.

³ Software license key upgrade.

⁴ Two complete links (4 terminals) required for MHS protection along with Exalt MHS kit and

¹ Not all frequency bands are authorized or available for use in all countries.

² +24 dBm output power. Consult Exalt for availability.

³ Software license key upgrade.

⁴ Two complete links (4 terminals) required for MHS protection along with Exalt MHS kit and protection cabling. Consult your Exalt Sales representatives for MHS availability. (MHS is not available on EX-5i or EX-5i lite).



Specifications for RFQ Item# 38

Network Systems > Broadband Radios > Point-to-Point Radios > Unlicensed T-Carrier-Ethernet > SKU# 389937

**Exalt Communications Corp - EX-2.4i Lite 0xT1/E1 to 4xT1/E1 Upgrade Key****TESSCO SKU :** 389937 **Mfg Part #:** K016240031 **Qty/UOM :** 1 EACH **UPC:** 888063899379

EXALT EX-2.4i Lite upgrade key, single terminal, 0xT1/E1 to 4xT1/E1. *Drop Ship only

List: \$500.00**Your Price:** Log in**Qty:** 1

Add

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Crimp-LMR400List:\$31.00
Your Price: Log in

1 QTY

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Superflexible 1/2" Cable

Learn More



Low Loss RG8/U Cable

Learn More



Andrew Antenna Clamps

Learn More

1 2 3 4 5 6 7 8 9 10

Technical Specs Options

GSA

Contract:

GS-35F-0548P

Schedule:

70 - Information Technology

Description

Upgrade Key, EX-2.4i Lite, single terminal, 0xT1/E1 to 4xT1/E1.

Frequency

2.4GHz

Mfg. Warranty

1 Year