



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

Request for Quotation

RFQ NUMBER
DPS0931

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
JOHN ABBOTT
304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE
Tyco Electronics
221 Jefferson Ridge Pkwy.
Lynchburg, VA 24501

WEST VIRGINIA STATE POLICE
4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/02/2009				

BID OPENING DATE: **04/23/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		725-74		
<p>TWO-WAY RADIOS, PORTABLE</p> <p>OPEN-END CONTRACT TO PROVIDE VHF & UHF DIGITAL TWO-WAY PORTABLE RADIOS FOR THE WEST VIRGINIA STATE POLICE PER THE SPECIFICATIONS.</p> <p>QUESTIONS: QUESTIONS SHALL BE SUBMITTED IN WRITING TO: JOHN ABBOTT, SR. BUYER - EMAILS PREFERRED, AND SHOULD BE SENT TO JOHN.H.ABBOTT@WV.GOV, NO LATER THAN 4/17/2009; 2:00 PM</p> <p>EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL</p>						

RECEIVED
 2009 APR 23 A 10:19
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *[Signature]* TELEPHONE **804-717-8281** DATE **4/22/09**

TITLE **SALES AGENT** FEIN **65-0916944** ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'
FAX - 804-717-8468



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

**Request for
 Quotation**

RFQ NUMBER
DPS0931

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
**JOHN ABBOTT
 304-558-2544**

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

**WEST VIRGINIA STATE POLICE

 4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141**

DATE PRINTED 04/02/2009	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
-----------------------------------	---------------	----------	--------	---------------

BID OPENING DATE: **04/23/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. 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.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER
DPS0931

PAGE
3

ADDRESS CORRESPONDENCE TO ATTENTION OF
**JOHN ABBOTT
 304-558-2544**

RFQ COPY
 TYPE NAME/ADDRESS HERE

RFQ COPY

VENDOR

WEST VIRGINIA STATE POLICE

**4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/02/2009				

BID OPENING DATE: **04/23/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.</p> <p>REV. 04/11/2001</p> <p>EXHIBIT 4</p> <p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p> <p>PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINIA CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHICH IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FBN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, 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

Request for Quotation

RFQ NUMBER
DPS0931

PAGE
4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN ABBOTT
304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SUPPLIER

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/02/2009				

BID OPENING DATE: **04/23/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE AGENCY AS A CONDITION OF AWARD.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: JOHN ABBOTT-----</p> <p>RFQ. NO.: DPS0931-----</p> <p>BID OPENING DATE: 4/23/2009-----</p> <p>BID OPENING TIME: 1:30 PM-----</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER: **DPS0931**

PAGE: **5**

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN ABBOTT
304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

PROPERTY

SHIP TO

WEST VIRGINIA STATE POLICE

4124 KANAWHA TURNPIKE
SOUTH CHARLESTON, WV
25309 304-746-2141

DATE PRINTED: 04/02/2009	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
BID OPENING DATE: 04/23/2009		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
CONTACT PERSON (PLEASE PRINT CLEARLY): <u>TERESA STONE 804-717-8281</u>						
***** THIS IS THE END OF RFQ DPS0931 ***** TOTAL: _____						
<p>PLEASE SUBMIT QUESTIONS AND PURCHASE REQUESTS TO:</p> <p>TYCO ELECTRONICS TERESA STONE 10801 SURRY ROAD CHESTER, VA 23891 PH-804-717-8281 FAX-804-717-8468 email: teresa.stone@tycoelectronics.com</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS.

SIGNATURE	TELEPHONE	DATE
TITLE	FBN	ADDRESS CHANGES TO BE NOTED ABOVE

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

VHF and UHF PORTABLE DIGITAL RADIO SPECIFICATIONS

The West Virginia State Police, hereinafter agency is soliciting competitive bids to establish an open-end contract for the purchase of digital P-25 portable/handheld radio equipment and related accessories. The awarded contract(s) shall be available for use by this agency as well as all other entities of state government, and all counties and municipalities within the State Of West Virginia.

The agency has placed the digital P-25 portable/handheld radio equipment into two different tiers according to their performance capabilities and features of each unit. The two tiers will be referred to as Tier-1 and Tier-2 hereinafter and are outlined below. It should be noted the award of this contract may result in a split award between Tiers.

		Comply?	
		Yes	No
<u>TIER-1</u>			
1. VHF Portable – P-25 Digital CAI ready – Trunking Capable with optional software			
1.1.	Radio shall be programmable for operation in the 136-174 MHz band.	<u>X</u>	_____
1.2.	Radio shall have a programmable output power of 2 to 5 watts.	<u>X</u>	_____
1.3.	Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
1.3.1.	Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
1.3.2.	A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____
1.4.	Digital Capabilities		
1.4.1.	Radio shall be P-25 CAI compatible and operate on the West Virginia Department of Natural Resources system.	<u>X</u>	_____
1.4.2.	Radio shall be capable of upgrade to P-25 Trunking capability.	<u>X</u>	_____
1.5.	Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 24 zones.	<u>X</u>	_____

		Comply?	
		Yes	No
1.5.1. P-25 Trunked Channelization			
1.5.1.1.	Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear). <i>- Not recommended</i>	<u>X</u>	_____
1.5.1.2.	Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
1.5.2. Conventional (Non-Trunked) Channelization			
1.5.2.1.	Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
1.5.2.2.	Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
1.5.2.3.	There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
1.6. Scanning			
1.6.1.	Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____
1.6.2.	Scan lists may also be defined in programming software.	<u>X</u>	_____
1.6.2.1.	Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
1.6.2.2.	Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
1.6.2.3.	Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____

	Comply?	
	Yes	No
1.7. Display		
1.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters. - <i>8 characters</i>	_____	<u>X</u>
1.7.2. Radio shall have a backlit display.	<u>X</u>	_____
1.7.3. Radio shall have a battery status.	<u>X</u>	_____
1.7.4. Radio shall have ID display capability.	<u>X</u>	_____
1.8. Channel/Zone selection		
1.8.1. Channel selection will be by way of rotary knob to select a minimum of 16 channels.	<u>X</u>	_____
1.8.2. Zone selection to allow access to more groups of frequencies will be via other controls or buttons.	<u>X</u>	_____
1.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	_____
2. UHF Portable – P-25 Digital Trunking ready		
* 2.1. Radio shall be programmable for operation in the 403-470 MHz band. - <i>SEE BELOW</i> *	<u>X</u>	_____
2.2. Radio shall have a programmable output power of 2 to 5 watts.	<u>X</u>	_____
2.3. Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
2.3.1. Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
2.3.2. A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____

* 2.1. - Model numbers differ between 378-430 mhz and 440-512 mhz AS noted in pricing.

	Comply?	
	Yes	No
2.4. Digital Capabilities		
2.4.1. Radio shall be P-25 Trunking capable and compatible with the WVIRP P-25 Trunked system.	<u>X</u>	_____
2.4.2. Radio shall include P-25 CAI (Common Air Interface) compatibility.	<u>X</u>	_____
2.5. Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 24 zones.	<u>X</u>	_____
2.5.1. P-25 Trunked Channelization		
2.5.1.1. Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear). - <i>Not recommended</i>	<u>X</u>	_____
2.5.1.2. Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
2.5.2. Conventional (Non-Trunked) Channelization		
2.5.2.1. Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
2.5.2.2. Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
2.5.2.3. There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
2.6. Scanning		
2.6.1. Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____

	Comply?	
	Yes	No
2.6.2. Scan lists may also be defined in programming software.	<u>X</u>	_____
2.6.2.1. Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
2.6.2.2. Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
2.6.2.3. Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____
2.7. Display		
2.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters. <i>- 8 characters</i>	_____	<u>X</u>
2.7.2. Radio shall have a backlit display.	<u>X</u>	_____
2.7.3. Radio shall have a battery status.	<u>X</u>	_____
2.7.4. Radio shall have ID display capability.	<u>X</u>	_____
2.8. Channel/Zone selection		
2.8.1. Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u>	_____
2.8.2. Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u>	_____
2.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	_____
2.10. Encryption		
2.10.1. Any hardware necessary for AES encryption will be installed in the radio at time of purchase.	<u>X</u>	_____

	Comply?	
	Yes	No
2.10.2. AES encryption capability will be offered as a software option at time of purchase.	<u>X</u>	_____
2.10.3. AES encryption keys shall be able to be loaded utilizing a Motorola KVL 3000 Plus keyloader. A part number for appropriate cable shall be provided.	_____	<u>X</u>
2.10.4. Radio shall be capable of storing multiple AES encryption keys. The ability to store more than one key shall be considered to be part of AES encryption being in the radio.	<u>X</u>	_____

3. General Specifications

3.1. Remote Microphone

3.1.1. A remote microphone with coiled cord shall be provided.	<u>X</u>	_____
3.1.1.1. The microphone cable shall be capable of extending a minimum of 24 inches.	<u>X</u>	_____
3.1.1.2. The microphone shall have a spring clip to allow it to be clipped to clothing.	<u>X</u>	_____
3.1.1.3. The remote microphone shall be available for individual purchase.	<u>X</u>	_____

3.2. Charger

3.2.1. A desktop charger shall be provided to allow rapid charging from an 117V power source.	<u>X</u>	_____
3.2.1.1. This charger shall be equipped with indication of both charging and charger completion.	<u>X</u>	_____
3.2.1.2. This charger shall be capable of both a fast and trickle charge to return the battery to a fully charged condition in 4 hours or less.	<u>X</u>	_____
3.2.1.3. This unit should incorporate a built-in battery conditioner.	<u>X</u>	_____
3.2.1.4. The charger shall be available for individual purchase.	<u>X</u>	_____

		Comply?	
		Yes	No
3.3. Portable Radio Belt Loop			
3.3.1.	A black leather belt loop shall be provided with each portable purchased.	<u>X</u>	_____
3.3.2.	The black leather belt loop shall be available for individual purchase, should additional belt loops be needed.	<u>X</u>	_____
3.4. Warranty			
3.4.1.	All equipment shall be warranted for a minimum period of 3 years, including parts and labor, and beginning when the equipment is first placed in service.	<u>X</u>	_____
3.4.2.	All features that are placed in the radio by way of programming or feature encoding will remain for the life of the radio.	<u>X</u>	_____
3.4.3.	Any lost feature information (i.e. # of channels, type of radio, etc) will be replaced (provided) at no charge for the life of the radio.	<u>X</u>	_____
3.4.4.	The successful vendor shall provide pre-paid shipping labels to cover all shipping charges for any item needing to be returned for repair work during the warranty period. <i>-Tyco pays to return repaired items to customer at no charge</i>	_____	<u>X</u>
3.5. Service Manuals (Only for WV State Police purchases)			
3.5.1.	Schematics and complete service manuals will be available.	<u>X</u>	_____
3.5.2.	An option shall be provided to purchase depot level services manuals in paper form.	<u>X</u>	_____
3.5.3.	Electronic versions of depot level service manuals shall be provided at no cost to WV State Police upon the initial purchase under this contract.	<u>X</u>	_____
3.5.4.	Any failure to comply will be grounds for disqualification of the bid, or cancellation of the contract.	<u>X</u>	_____

		Comply?	
		Yes	No
3.6. Programming Software and Equipment Firmware			
3.6.1.	An option shall be available to purchase Software, Cable and any interfaces necessary to program the radio.	<u>X</u>	<u> </u>
3.6.1.1.	Programming cables shall utilize USB interface to computers.	<u> </u>	<u> </u>
	Note: Any interfaces to Parallel or Serial ports shall cause disqualification of associated radios and options.	<u>X</u>	<u> </u>
3.6.1.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates. <i>priced separately</i>	<u> </u>	<u>X</u>
3.6.1.2.1.	Short term access is not acceptable.	<u>X</u>	<u> </u>
3.6.1.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u> </u>	<u>X</u>
3.6.2.	Radio firmware required to keep hardware current to P-25 standards shall be provided continuously during the life of the contract. <i>- P25 Phase I only</i>	<u>X</u>	<u> </u>
3.6.2.1.	Manufacturer shall provide internet access to this software/firmware. <i>see pricing</i>	<u>X</u>	<u> </u>
3.6.2.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u> </u>	<u>X</u>
3.6.2.2.1.	Short term access is not acceptable.	<u>X</u>	<u> </u>
3.6.2.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u> </u>	<u>X</u>

	Comply?	
	Yes	No
3.7. Evaluation of bid		
3.7.1. A working example of the equipment to be provided will be available for evaluation prior to award.	<u>X</u>	_____
3.7.2. Operating and repair manuals will be provided on each component delivered for evaluation.	<u>X</u>	_____
3.7.3. The documentation supplied by the accepted vendor will not be returned, and shall not be construed as being part of the manuals required in other parts of this specification.	<u>X</u>	_____
3.7.4. A working example of the equipment to be provided will be available for evaluation prior to award and for certification on the WVIRP system as required.	<u>X</u>	_____
3.7.5. Special / Promotional pricing offered by vendors for limited periods of time shall not be considered for bid award.	<u>X</u>	_____
3.8. Manufacturers modifications and dealer roles		
3.8.1. Any modifications to equipment necessary to comply with specifications will be completed at factory/corporate locations and shall not be performed at field repair shops.	<u>X</u>	_____
3.8.2. Any local dealers representing manufacturers are expected to only provide support to the manufacturer and NOT warranty or provide modifications to equipment. (Warranty work shall be performed at corporate depot type repair facilities.)	<u>X</u>	_____
3.8.3. All bidders must provide written certification from manufacturers of their qualification to represent that manufacturer as an authorized vendor. Failure to comply will be grounds for disqualification.	<u>X</u>	_____

Tyco Electronics is the manufacturer of the equipment being bid herein.

	Comply?	
	Yes	No
4. Options for Tier-1		
4.1. Addition of P-25 Trunking for Tier-1 - Item #1	<u>X</u>	_____
4.2. AES Encryption for Tier 1 - Item #2	<u>X</u>	_____
4.3. Keyloader cable for use with Motorola KVL 3000 Plus	_____	<u>X</u>
4.4. Programming Software	<u>X</u>	_____
4.5. Programming Cable and any necessary interface	<u>X</u>	_____
4.6. Additional Desktop Charger	<u>X</u>	_____
4.7. Additional Lapel Microphone	<u>X</u>	_____
4.8. Additional Portable Radio Belt Loop	<u>X</u>	_____
4.9. Additional Battery identical to that originally provided	<u>X</u>	_____
4.10. Additional year of warranty (Total of 4 years)	<u>X</u>	_____
4.11. Additional year of warranty (Total of 5 years)	<u>X</u>	_____

TIER-2**1. VHF Portable – P-25 Digital CAI ready – Trunking Capable with optional software**

		Comply?	
		Yes	No
1.1.	Radio shall be programmable for operation in the 136-174 MHz band.	<u>X</u>	_____
1.2.	Radio shall have a programmable output power of 2 to 4 watts.	<u>X</u>	_____
1.3.	Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
1.3.1.	Battery life should be 10 hours or greater. NIMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
1.3.2.	A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____
1.4.	Digital Capabilities		
1.4.1.	Radio shall be P-25 CAI compatible and operate on the West Virginia Department of Natural Resources system.	<u>X</u>	_____
1.4.2.	Radio shall be capable of upgrade to P-25 Trunking capability.	<u>X</u>	_____
1.5.	Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 16 zones.	<u>X</u>	_____
1.5.1.	P-25 Trunked Channelization		
1.5.1.1.	Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear). <i>-Not recommended</i>	<u>X</u>	_____
1.5.1.2.	Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
1.5.2.	Conventional (Non-Trunked) Channelization		

		Comply?	
		Yes	No
1.5.2.1.	Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
1.5.2.2.	Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
1.5.2.3.	There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
1.6. Scanning			
1.6.1.	Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____
1.6.2.	Scan lists may also be defined in programming software.	<u>X</u>	_____
1.6.2.1.	Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
1.6.2.2.	Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
1.6.2.3.	Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____
1.7. Display			
1.7.1.	Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters. <i>- 8 characters</i>	_____	<u>X</u>
1.7.2.	Radio shall have a backlit display.	<u>X</u>	_____
1.7.3.	Radio shall have a battery status.	<u>X</u>	_____
1.7.4.	Radio shall have ID display capability.	<u>X</u>	_____

		Comply?	
		Yes	No
1.8.	Channel/Zone selection		
1.8.1.	Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u>	_____
1.8.2.	Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u>	_____
1.9.	Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	_____
2. UHF Portable – P-25 Digital Trunking ready			
2.1.	Radio shall be programmable for operation in the 403-470 MHz band. <i>Order either 378-430 or 440-510 MHz split</i>	<u>X</u>	_____
2.2.	Radio shall have a programmable output power of 2 to 4 watts.	<u>X</u>	_____
2.3.	Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
2.3.1.	Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
2.3.2.	A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____
2.4.	Digital Capabilities		
2.4.1.	Radio shall be P-25 Trunking capable and compatible with the WVIRP P-25 Trunked system.	<u>X</u>	_____
2.4.2.	Radio shall include P-25 CAI (Common Air Interface) compatibility.	<u>X</u>	_____
2.5.	Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 16 zones.	<u>X</u>	_____

		Comply?	
		Yes	No
2.5.1. P-25 Trunked Channelization			
2.5.1.1.	Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear). - <i>Not recommended</i>	<u>X</u>	_____
2.5.1.2.	Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
2.5.2. Conventional (Non-Trunked) Channelization			
2.5.2.1.	Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
2.5.2.2.	Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
2.5.2.3.	There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
2.6. Scanning			
2.6.1.	Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____
2.6.2.	Scan lists may also be defined in programming software.	<u>X</u>	_____
2.6.2.1.	Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
2.6.2.2.	Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
2.6.2.3.	Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____

	Comply?	
	Yes	No
2.7. Display		
2.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters.	_____	_____
2.7.2. Radio shall have a backlit display.	<u>X</u> _____	_____
2.7.3. Radio shall have a battery status.	<u>X</u> _____	_____
2.7.4. Radio shall have ID display capability.	<u>X</u> _____	_____
2.8. Channel/Zone selection		
2.8.1. Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u> _____	_____
2.8.2. Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u> _____	_____
2.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u> _____	_____
2.10. Encryption		
2.10.1. Any hardware necessary for AES encryption will be installed in the radio at time of purchase.	<u>X</u> _____	_____
2.10.2. AES encryption capability will be offered as a software option at time of purchase.	<u>X</u> _____	_____
2.10.3. AES encryption keys shall be able to be loaded utilizing a Motorola KVL 3000 Plus keyloader. A part number for appropriate cable shall be provided.	_____	<u>X</u> _____
2.10.4. Radio shall be capable of storing multiple AES encryption keys. The ability to store more than one key shall be considered to be part of AES encryption being in the radio.	<u>X</u> _____	_____
3. General Specifications		
3.1. Remote Microphone		
3.1.1. A remote microphone with coiled cord shall be provided.	<u>X</u> _____	_____

		Comply?	
		Yes	No
3.1.1.1.	The microphone cable shall be capable of extending a minimum of 24 inches.	<u>X</u>	_____
3.1.1.2.	The microphone shall have a spring clip to allow it to be clipped to clothing.	<u>X</u>	_____
3.1.1.3.	The remote microphone shall be available for individual purchase.	<u>X</u>	_____
3.2. Charger			
3.2.1.	A desktop charger shall be provided to allow rapid charging from an 117V power source.	<u>X</u>	_____
3.2.1.1.	This charger shall be equipped with indication of 1) charging and 2) charger completion.	<u>X</u>	_____
3.2.1.2.	This charger shall be capable of a fast and trickle charge to return the battery to a fully charged condition in 4 hours or less.	<u>X</u>	_____
3.2.1.3.	This unit should incorporate a built-in battery conditioner.	<u>X</u>	_____
3.2.1.4.	The charger shall be available for individual purchase.	<u>X</u>	_____
3.3. Portable Radio Belt Loop			
3.3.1.	A black leather belt loop shall be provided with each portable purchased.	<u>X</u>	_____
3.3.2.	The black leather belt loop shall be available for individual purchase, should additional belt loops be needed.	<u>X</u>	_____
3.4. Warranty			
3.4.1.	All equipment shall be warranted for a minimum period of 3 years, including parts and labor, and beginning when the equipment is first placed in service.	<u>X</u>	_____
3.4.2.	All features that are placed in the radio by way of programming or feature encoding will remain for the life of the radio.	<u>X</u>	_____

		Comply?	
		Yes	No
3.4.3.	Any lost feature information (i.e. # of channels, type of radio, etc) will be replaced (provided) at no charge for the life of the radio.	<u>X</u>	_____
3.4.4.	The successful vendor shall provide pre-paid shipping labels to cover all shipping charges for any item needing to be returned for repair work during the warranty period. <i>Tyco pays to return repaired item to customer</i>	_____	<u>X</u>
3.5.	Service Manuals (Only for WV State Police purchases)		
3.5.1.	Schematics and complete service manuals will be available.	<u>X</u>	_____
3.5.2.	An option shall be provided to purchase depot level services manuals in paper form.	<u>X</u>	_____
3.5.3.	Electronic versions depot level service manuals shall be provided at no cost to WV State Police upon initial purchase under this contract.	<u>X</u>	_____
3.5.4.	Any failure to comply will be grounds for disqualification of the bid, or cancellation of the contract.	<u>X</u>	_____
3.6.	Programming Software and Equipment Firmware		
3.6.1.	An option shall be available to purchase Software, Cable and any interfaces necessary to program the radio.	<u>X</u>	_____
3.6.1.1.	Programming cables shall utilize USB interface to computers.		
	Note: Any interfaces to Parallel or Serial ports shall cause disqualification of associated radios and options.	<u>X</u>	_____
3.6.1.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	_____	<u>X</u>
3.6.1.2.1.	Short term access is not acceptable.	<u>X</u>	_____
3.6.1.2.2.	Username, password, and website	_____	<u>X</u>

		Comply?	
		Yes	No
address shall be provided with bid and shall be part of the bid analysis and award.			
3.6.2.	Radio firmware required to keep hardware current to P-25 standards shall be provided continuously during the life of the contract. - P25 Phase I only	<u> X </u>	<u> </u>
3.6.2.1.	Manufacturer shall provide internet access to this software/firmware. - See pricing	<u> X </u>	<u> </u>
3.6.2.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u> </u>	<u> X </u>
3.6.2.2.1.	Short term access is not acceptable.	<u> X </u>	<u> </u>
3.6.2.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u> </u>	<u> X </u>
3.7. Evaluation of bid			
3.7.1.	A working example of the equipment to be provided will be available for evaluation prior to award.	<u> X </u>	<u> </u>
3.7.2.	Operating and repair manuals will be provided on each component delivered for evaluation.	<u> X </u>	<u> </u>
3.7.3.	The documentation supplied by the accepted vendor will not be returned, and shall not be construed as being part of the manuals required in other parts of this specification.	<u> X </u>	<u> </u>
3.7.4.	A working example of the equipment to be provided will be available for evaluation prior to award and for certification on the WVIRP system as required.	<u> X </u>	<u> </u>
3.7.5.	Special / Promotional pricing offered by vendors for limited periods of time shall not be considered for bid award.	<u> X </u>	<u> </u>

	Comply?	
	Yes	No
3.8. Manufacturers modifications and dealer roles		
3.8.1. Any modifications to equipment necessary to comply with specifications will be completed at factory/corporate locations and shall not be performed at field repair shops.	<u>X</u>	_____
3.8.2. Any local dealers representing manufacturers are expected to only provide support to the manufacturer and NOT warranty or provide modifications to equipment. (Warranty work shall be performed at corporate depot type repair facilities.)	<u>X</u>	_____
3.8.3. All bidders must provide written certification from manufacturers of their qualification to represent that manufacturer as an authorized vendor. Failure to comply will be grounds for disqualification. <i>Tyco is the manufacturer of bid equipment</i>	<u>X</u>	_____
4. Options for TIER 2		
4.1. Addition of P-25 Trunking for Tier 2 - Item #1	<u>X</u>	_____
4.2. AES Encryption for Tier 2 - Item #2	<u>X</u>	_____
4.3. Keyloader cable for use with Motorola KVL 3000 Plus	_____	<u>X</u>
4.4. Programming Software	<u>X</u>	_____
4.5. Programming Cable and any necessary interface	<u>X</u>	_____
4.6. Additional Desktop Charger	<u>X</u>	_____
4.7. Additional Lapel Microphone	<u>X</u>	_____
4.8. Additional Portable Radio Belt Loop	<u>X</u>	_____
4.9. Additional Battery identical to that originally provided	<u>X</u>	_____
4.10. Additional year of warranty (Total of 4 years)	<u>X</u>	_____
4.11. Additional year of warranty (Total of 5 years)	<u>X</u>	_____

VHF and UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION

TIER 1

Item #1 VHF Portable – P-25 CAI \$ _____
(P-25 Trunking optional)

Make: _____ Model: _____

Item #2 UHF Portable – P-25 Trunked \$ _____
(P-25 CAI included)

Make: _____ Model: _____

Options for TIER 1

Addition of P-25 Trunking for Item #1 \$ _____

AES Encryption for Item #2 \$ _____

Keyloader cable for use with Motorola KVL 3000 Plus \$ _____

Programming Software \$ _____

Programming Cable and any necessary interface \$ _____

Additional Desktop Charger \$ _____

Additional Lapel Microphone \$ _____

Additional Portable Radio Belt Loop \$ _____

Additional Battery identical to what was provided \$ _____

Additional year of warranty (Total of 4 years) \$ _____

Additional year of warranty (Total of 5 years) \$ _____

TOTAL BID FOR TIER-1 \$ _____

SEE ATTACHED



April 22, 2009

West Virginia State Police
4124 Kanawha Turnpike
South Charleston, WV 25309

Reference: RFQ: DPS0931

Greetings:

In the essence of time, and neatness, please refer to the attached as our Page 25 and 26, pricing for Tier 1 and Tier 2. Due to differences in our offerings to follow compliance with specifications, we have submitted our bid, following your format on a separate page. Please note that we comply with both Tier 1 and Tier 2 equally with the Tyco Electronics' model P5450. Therefore, we submit the same for both Tier 1 and Tier 2. Additionally, please note that in choosing between P25 CAI and P25 Trunked, the difference is varied by model of feature set, as well as price. As the radio would need to be ordered with whichever feature is needed by the user, we have broken them down separately.

I respectfully submit the following in place of the pages included by The West Virginia State Police department pages 24 and 25 of RFQ DPS0931.

Best regards,

A handwritten signature in black ink, appearing to read 'T.M. Stone', written in a cursive style.

Teresa M. Stone
Sales Agent
Tyco Electronics



**VHF AND UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION**

TIER 1

Item #1 – VHF Portable – P25 CAI **\$1,934.61**
(Trunking optional)

Make: Tyco Electronics Model: P5450 Model MAEX-CH1XX

Item #2 – UHF Portable – P25 Trunked **\$2,557.41**
(P-25 CAI included)

Make: Tyco Electronics Model: P5450 Model MAEX-CN1XX (378-430)
Model: P5450 Model MAEX-CU1XX (440-512)

TIER 1

Item #1 – VHF Portable – P25 CAI **\$2,557.41**
(with P25 Trunking)

Make: Tyco Electronics Model: P5450 Model MAEX-CH1XX/PKGPT

Item #2 – UHF Portable – P25 Trunked **\$3,240.01**
(with AES Encryption)

Make: Tyco Electronics Model: P5450 Model MAEX-CU1XA (378-430)
Model: P5450 Model MAEX-CN1XA (440-512)

Options for TIER 1

Keyloader for use with Motorola KVL 3000 Plus	\$ N/A
Keyloader for use with Tyco Electronics P5450	\$ 1,912.50
Programming Software – P25 CAI	\$ 229.50
Programming Software – P25 Trunking	\$ 2,263.50
Programming Cable with USB adapter	\$ 355.50
Additional Desktop Charger	\$ 86.40
Additional Lapel Microphone	\$ 97.20
Additional Portable Radio Belt Loop	\$ 25.20
Additional Battery identical to what is provided	\$ 72.00
Additional year of warranty (Total of 4 years)	\$ 108.00
Additional year of warranty (Total of 5 years)	\$ 108.00



Tyco Electronics

TIER 1 Update Subscriptions

Radio Firmware updates, 1 year subscription	\$ 900.00
Radio Software updates CAI, 1 year subscription	\$ 229.50
Radio Software updates Trunking, 1 year subscription	\$ 720.00



**VHF AND UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION**

TIER 2

Item #1 – VHF Portable – P25 CAI \$1,934.61
(Trunking optional)

Make: Tyco Electronics Model: P5450 Model MAEX-CH1XX

Item #2 – UHF Portable – P25 Trunked \$2,557.41
(P-25 CAI included)

Make: Tyco Electronics Model: P5450 Model MAEX-CN1XX (378-430)
Model: P5450 Model MAEX-CU1XX (440-512)

TIER 2

Item #1 – VHF Portable – P25 CAI \$2,557.41
(with P25 Trunking)

Make: Tyco Electronics Model: P5450 Model MAEX-CH1XX/PKGPT

Item #2 – UHF Portable – P25 Trunked \$3,240.01
(with AES Encryption)

Make: Tyco Electronics Model: P5450 Model MAEX-CU1XA (378-430)
Model: P5450 Model MAEX-CN1XA (440-512)

Options for TIER 2

Keyloader for use with Motorola KVL 3000 Plus	\$ N/A
Keyloader for use with Tyco Electronics P5450	\$ 1,912.50
Programming Software – P25 CAI	\$ 229.50
Programming Software – P25 Trunking	\$ 2,263.50
Programming Cable with USB adapter	\$ 355.50
Additional Desktop Charger	\$ 86.40
Additional Lapel Microphone	\$ 97.20
Additional Portable Radio Belt Loop	\$ 25.20
Additional Battery identical to what is provided	\$ 72.00
Additional year of warranty (Total of 4 years)	\$ 108.00
Additional year of warranty (Total of 5 years)	\$ 108.00



Tyco Electronics

TIER 2 Update Subscriptions

Radio Firmware updates, 1 year subscription	\$ 900.00
Radio Software updates CAI, 1 year subscription	\$ 229.50
Radio Software updates Trunking, 1 year subscription	\$ 720.00

VHF and UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION (Cont.)

TIER 2

Item #1 VHF Portable – P-25 CAI \$ _____
(P-25 Trunking optional)

Make: _____ Model: _____

Item #2 UHF Portable – P-25 Trunked \$ _____
(P-25 CAI included)

Make: _____ Model: _____

Options for TIER 2

Addition of P-25 Trunking for Items #1 \$ _____

AES Encryption for Items #2 \$ _____

Keyloader cable for use with Motorola KVL 3000 Plus \$ _____

Programming Software \$ _____

Programming Cable and any necessary interface \$ _____

Additional Desktop Charger \$ _____

Additional Lapel Microphone \$ _____

Additional Portable Radio Belt Loop \$ _____

Additional Battery identical to what was provided \$ _____

Additional year of warranty (Total of 4 years) \$ _____

Additional year of warranty (Total of 5 years) \$ _____

TOTAL BID FOR TIER-2 \$ _____

GRAND TOTAL \$ _____

SEE ATTACHED

P5400 Portables

VHF, UHF

The P5400 portable is a digital two-way radio that provides

- Multi-Mode functionality
- Digital voice and IP data
- Optional AES encryption



P5450

P5470

The P5400 portable enhances the productivity and increases the efficiency of its users.

Multiple Applications with One Radio

The P5400 uses a new high-speed digital signal processor and the latest RF components to support multiple applications in one package:

- Project 25 (P25) Digital Trunking
- P25 Digital Conventional
- ProVoice™ Digital Trunking
- Enhanced Digital Access Communications System (EDACS®) Trunking
- Complete Analog Conventional features

Maximum RF Performance

The radio operates over the VHF band from 136 to 174 MHz and in the UHF band from either 378 to 430 or 440 to 512 MHz, and combines digital and analog operation in one radio. Such versatility maximizes interoperability.

- TIA-603 compliance – the highest analog RF performance
- TIA-102 Class-A compliance – the highest level of P25 RF

performance available on the market.

High Performance in a Durable Package

The sturdy mechanical package of the P5400 provides high performance and reliable service.

- MIL-STD-810F durable – including 1-meter drop per TIA
- Programmable dual-position switch for flexible operation
- Tx/Rx LED and enhanced clarity LCD for more visible signaling (including features such as a battery-level gauge)
- At 13.6 ounces with Lithium-Ion battery, the lightest weight portable offered by M/A-COM
- Illuminated channel indicator for easy channel identification
- Intrinsically safe certification (pending)

Software-Based Design for Customization

With the software-based design, the P5400 portable is readily configurable and easily expandable with software upgrades to meet customized needs.

- Stores up to 1,024 trunked system/group combinations and up to 512 conventional channels

- Stores 99 individual call numbers and 99 telephone numbers in memory
- ProFile™ offers easy over-the-air programming for efficient updates
- ProScan™ provides smooth, automatic roaming between sites
- Personality Lock prevents unauthorized users from programming radios or accessing the system.

Radio TextLink Text Messages

With this option, users may receive, display, and respond to text messages sent from authorized users on the network. This feature improves real-time communications among first responders while also providing the capability to leave messages with users that are actively engaged in other critical activities.

For More Information

For more information about this or any other M/A-COM product from Tyco Electronics Wireless Network Solutions, call toll free in the U.S. or Canada 800-368-3277. From outside the U.S. call +1-434-455-6403.



Tyco Electronics

Our commitment. Your advantage.

Technical specifications are subject to change without notice. Product sales are subject to applicable U.S. export control laws.

General Specifications

P5400 Portables are available in 2 models:

P5470: System Model with LCD and DTMF keypad

P5450: Scan Model with LCD and limited keypad

Dimensions (H x W x D):

(Without Knobs and Antenna)

With battery:

5.37 x 2.44 x 1.67 in.

(136.5 x 62.0 x 42.5 mm)

Weight (with Battery):

Li-Ion: 13.6 oz (386g)

NiCd: 17.3 oz (490g)

NiMH: 18.3 oz (519g)

Input Voltage:

7.5 VDC (nominal)

Vibration:

5 G (per U.S. Forest Service)

Shock:

1 meter drop (per TIA-603B)

Battery Life (at 5% Tx, 5% Rx, and 90% standby):

NiCd: 8 hours (1600 mAh)

Li-Ion: 9 hours (2000 mAh)

NiMH: 11 hours (2400 mAh)

Operating Temperature Range:

NiCd: -22 to +140°F

(-30 to +60°C)

Li-Ion: +14 to +122°F

(-10 to +50°C)

NiMH: -4 to +122°F

(-20 to +50°C)

Relative Humidity:

90% @ 122°F (+50°C)

Altitude:

Operational: 15,000 ft (4,572 m)

In Transit: 50,000 ft (15,240 m)

Color (case):

Black

Options and Accessories

Headset, earpiece, speaker microphones, PC programming software and cables, subminiature surveillance accessories, antennas, cases, straps, belt loops and swivel mounts, desk chargers, wall chargers, and vehicular chargers.

Intrinsically Safe Options

To be provided upon receipt of Factory Mutual and CSA certifications.



Transmitter

	VHF	UHF
Frequency Range (MHz):	136-174	378-430, 440-512
Rated RF Power (W):	0.5-5	0.5-4
Frequency Stability (-30 to +60°C; +25°C Ref) (ppm):	±1.5	±1.5
Frequency Separation (MHz):	38 (full bandwidth)	52, 72 (full bandwidth)
Modulation Deviation (kHz):	5.0 (wideband), 2.5 (narrowband)	5.0 (wideband), 2.5 (narrowband)
FM Hum and Noise (Companion Receiver) (dB):	<-45 (wideband) <-39 (narrowband)	<-45 (wideband) <-39 (narrowband)
Spurious and Harmonics (dBm/dBc):	<-36/-73	<-36/-72
Audio Response (dB):	+1/-3	+1/-3
Audio Distortion:	<3% (1 kHz tone @ 3 kHz deviation (wideband)) <3% (1 kHz tone @ 1.5 kHz deviation (narrowband))	<3% (1 kHz tone @ 3 kHz deviation (wideband)) <3% (1 kHz tone @ 1.5 kHz deviation (narrowband))
Project 25 Modulation Fidelity (%):	<5	<5
Project 25 ACP (dBc):	>67	>67

Receiver

	VHF	UHF
Frequency Range (MHz):	136-174	378-430, 440-512
Frequency Separation (MHz):	38 (full bandwidth)	52, 72 (full bandwidth)
Channel Spacing (kHz):	25 (wideband), 12.5 (narrowband)	25 (wideband), 12.5 (narrowband)
Frequency Stability (-30 to +60°C; +25°C Ref) (ppm):	±1.5	±1.5
Sensitivity (12 dB SINAD) (µV/dBm):	0.25/-119.0 (wideband), 0.25/-119.0 (narrowband)	0.25/-119.0 (wideband), 0.25/-119.0 (narrowband)
Selectivity @ 12.5 kHz (dB):	>60	>60
@ 15 kHz (dB):	>65	N/A
@ 25 kHz (dB):	>75	>73
Intermodulation (dB):	>75	>73
Spurious and Image Rejection (dB):	>75	>73
Rated Audio Output (mW):	500	500
Audio Distortion:	<3% @ rated power	<3% @ rated power
Project 25 Reference Sensitivity @ 5% BER (µV/dBm):	0.25/-119.0	0.25/-119.0
Project 25 Adjacent Channel Rejection (dB):	>60	>60

Environmental Specifications

Standard	Parameter	Methods & Procedures
MIL-STD-810F*	Low Pressure	500.4/1,2
	High Temperature	501.4/1,2
	Low Temperature	502.4/1,2
	Temperature Shock	503.4/1
	Solar Radiation	505.4/2
	Blowing Rain	506.4/1
	Humidity	507.4
	Salt Fog	509.4
	Blowing Dust	510.4/1
	Vibration (Minimum Integrity)	514.5/1, Category 24
	Vibration (Basic Transportation)	514.5/1, Category 4
	Shock (Functional/Basic)	516.5/1
	Shock (Transit Drop)	516.5/4
	IEC 60529	Dust-tight, Water Jets
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard, Section 2.15
TIA-603B	Shock (1 meter drop)	Paragraph 3.3.5.3

*Also meets equivalent superseded MIL-STD-810C, -D, and -E.

Digital Operation

Vocoding Method:	Improved MultiBand Excitation (IMBE™)
Data Rate:	9600 bps
Modulation:	GFSK for ProVoice, C4FM for P25

Regulatory Data

Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules	NTIA Certification Number
150-174	5	±1.5	OWDTR-0044-E	90	3636B-0044	RSS-119	JF-1209392
421-430	4	±1.5	OWDTR-0045-E	90	3636B-0045	RSS-119	JF-1209392
440-512	4	±1.5	OWDTR-0046-E	90	3636B-0046	RSS-119	JF-1209392

M/A-COM, Inc., P. O. Box 2000, Lynchburg, Virginia 24501, Phone: 800-368-3277

ECR-7479M EDACS is a registered trademark of M/A-COM, Inc.

ProVoice, ProFile, and ProScan are trademarks of M/A-COM, Inc.

All other trademarks are the property of their respective manufacturers.

Copyright © 2008 M/A-COM, Inc. All rights reserved. www.macom-wireless.com

11/08 Printed in U.S.A.



Tyco Electronics

Our commitment. Your advantage.

SPECIFICATIONS

Mechanical Characteristics

Approximate Weight:	6.4 oz
Operating Temp. Range:	-22 to +146°F (-30 to +60°C)
Cable:	36-inch extended coil cord, shielded
Cable Pull:	40 lb
Cable Flex:	25,000 cycles
PTT Operations:	1 million nominal
Clothing Clip:	Rotates 360° with positive detents every 45°

Electrical Characteristics (Microphone)

Type:	Electret Condenser
Typical Sensitivity:	-62 dBV
Frequency Range:	300 to 3000 Hz

Electrical Characteristics (Speaker)

Size:	50 mm
Sound Pressure Level:	95 dB minimum
Frequency Range:	300 to 3000 Hz
Impedance:	8Ω
Power Handling:	1.0 Watt

Standard Speaker Microphone



The standard speaker microphone includes a two-position volume control setting, emergency button, earphone jack, and a rubber PTT. A clothing clip that rotates a full 360 degrees provides complete accessibility. The design and construction meet MIL-STD-810F specifications.

Antenna with Mini-Coil Cord

*Includes Coiled Cable and Antenna Port
(Order antenna separately).*

P5400	MAEX-NAE9E
P5300	MAEX-NAE9E

Coiled Cord without Antenna

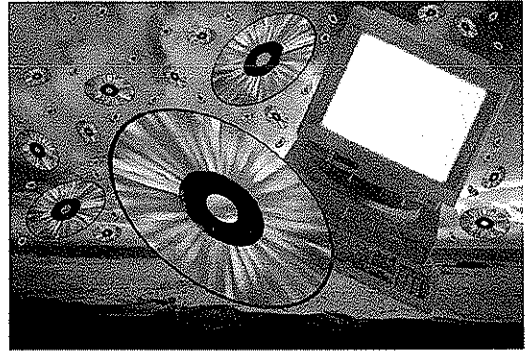
Includes Coiled Cable.

P5400	MAEX-NAE9D
P5300	MAEX-NAE9D

Software FX™

Software FX

- Provides subscriber updates to keep systems current
- Allows customers to ride the technology wave
- Is more cost effective than replacing equipment



Selecting a M/A-COM radio system represents a major commitment, for both the customer and M/A-COM, and means establishing a long-term partnership. While the partnership will continue relatively unchanged, technology will continue to evolve.

Customers want and need to continuously follow these technology improvements. Software FX provides the mechanism to meet this objective.

Subscriber Updates

For subscribers, Software FX provides software updates two times per year. These updates provide the capability to take advantage of new features and functions and enable new technology platforms. To take full advantage of these enhancements, hardware may need to be modified, replaced, or added.

For example, many of our Management Systems have transitioned from Windows NT® to Windows XP™ or Windows® 2003 operating systems. This change largely reflects the transition in the computer industry from the Windows NT® operating system to today's current operating systems. This transition allows M/A-COM customers to ride the technology wave. Software FX customers will receive software application upgrades as part of the standard FX offering. Their only investment is to replace computer hardware. FX subscribers can also take advantage of the many hardware upgrade specials offered as part of the program.

Cost Effective

Software FX provides a cost-effective alternative to premature system replacement.

Software FX allows gradual migration of system operation, giving customers the capability to incorporate the latest features, functions, and options without the disruption of complete system swap out. Inevitable change is the ally of Software FX customers.

For More Information

For more information about this or any other M/A-COM product from Tyco Electronics Wireless Network Solutions, call toll free in the U.S. or Canada 800-368-3277. From outside the U.S. call +1-434-455-9223 (Asia Pacific), +1-434-455-9229 (Latin America, Middle East, and Africa), and +1-434-455-9219 (Europe).



Tyco Electronics

Our commitment. Your advantage.

System Tune-Up

M/A-COM recommends the System MASTR® Tune option which provides twice-yearly system alignment, preventive maintenance, Software FX subscription, and Software FX installation.

M/A-COM Regional Service Managers provide overall planning and implementation of this service, delivering the following:

- Reliable and predictable RF coverage
- Constant audio levels on all channels at all sites
- Stable and predictable overlap areas on simulcast
- Even power output levels on all stations
- Minimal service interruptions during Software FX upgrades

Options

Software FX subscriptions can be purchased on either an annual basis or through discounted multi-year plans. The subscription fees are based upon the size and complexity of the customer's system.

Yearly Subscription

This single-year commitment is paid annually. The plan allows the first-time buyer to discover the investment value of Software FX without making a long-term commitment.

Multi-Year Single Installment

This plan offers a significant discount for a one-time payment covering several years of Software FX.

Multi-Year Annual Payment

This plan establishes a fixed annual fee for a multi-year commitment. This option complements long-term planning with a fixed cost over the term of the contract.

Features

The Software FX product is designed to provide software update services to participating customers. Subscribers receive the following:

- Periodic software releases for system, radio, and programming software components
- Software release notes and features summary with each release
- System configuration audit with initial subscription
- Configuration audit kept current with software releases as shipped
- Current FX release provided upon enrollment
- Software installation support from the Technical Assistance Center
- Support Services account on the Tech-Link web page
- Software replacement services if media are corrupted or damaged
- Incentive programs for hardware replacements such as Communications Systems Director (CSD), Console, and IMC™ Manager upgrades

Software Updates

Software releases twice per year reflect the continuing investment in system development to meet customer requirements. Each software release provides:

- Enhancements for existing features
- New features built upon earlier generations of software
- Capability to enable new licensed features

Software Release Notes

Each software update includes Software Release Notes. These technical documents detail the following:

- Enhancements or new features included within the software release
- Installation instructions
- Software and hardware compatibility information, where applicable

Telephone Support

The Technical Assistance Center (TAC) in Lynchburg, Virginia provides telephone support for installation from 8 a.m. to 5 p.m. (Eastern Time), Monday through Friday, excluding holidays.

Telephone: 1-800-528-7711 in the U.S. and Canada
+1-434-385-2400 Worldwide

VENDOR PREFERENCE CERTIFICATE

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

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

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

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

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

Bidder: TERESA M. STONE

Signed: 

Date: 4/22/09

Title: Sales Agent

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

STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT****VENDOR OWING A DEBT TO THE STATE:**

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

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

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

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

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

Vendor's Name: Tyco Electronics
Authorized Signature: [Signature] Date: 4/22/09