



Motorola Solutions, Inc.  
7031 Columbia Gateway Dr., 3rd Fl.  
Columbia, MD 21046-2289

Telephone: +1 410 712 6200  
Fax: +1 410 712 6489

June 16, 2011

Tara Lyle  
State of West Virginia  
Department of Administration  
Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305

Re: ADJ1107, RFQ for Portable Radios

Dear Ms. Lyle:

Motorola Solutions, Inc. by and through its Government and Enterprise Mobility Solutions business ("Motorola"), is pleased to have the opportunity to provide the State of West Virginia with quality communications equipment and services. The Motorola project team has taken great care to propose a solution that will meet your needs and provide unsurpassed value.

To best meet the functional and operational requirements of the State of West Virginia, Motorola's proposal includes a combination of hardware, and software devices as specified in RFQ ADJ1107.

Motorola's proposal is subject to Motorola's Clarifications to the West Virginia Adjutant General's Office Request for Quotation #ADJ1107 and to the attached and incorporated Communications Products Agreement or, in the alternative, a negotiated version thereof. Any questions can be directed to Peter Marotta, Motorola Account Manager for the State of West Virginia at 304-860-5051.

Sincerely,  
MOTOROLA SOLUTIONS, INC.

Jacquelyn M. Wasni  
MSSSI Vice President  
North America Government Markets

RECEIVED

2011 JUN 16 AM 11:42

WV PURCHASING  
DIVISION



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  
 ADJ1107

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 TARA LYLE  
 304-558-2544

RFQ COPY  
 TYPE NAME/ADDRESS HERE

ADJUTANT GENERAL'S DEPARTMENT  
 MOUNTAINEER CHALLENGE PROGRAM  
 CAMP DAWSON  
 240 ARMY ROAD  
 KINGWOOD, WV  
 26537  
 304-341-6406

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/23/2011				

BID OPENING DATE: 06/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		725-74		
TWO-WAY RADIOS, PORTABLE  INQUIRIES:  WRITTEN QUESTIONS WILL BE ACCEPTED UNTIL CLOSE OF BUSINESS ON 06/03/2011. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER OR E-MAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO:  TARA LYLE DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305  FAX: 304-558-4115 E-MAIL: TARA.L.LYLE@WV.GOV  EXHIBIT 3  LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AWARD 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.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Tara Lyle</i>	TELEPHONE 410-712-4896	DATE June 16, 2011
TITLE MSSSI Vice President	FEIN 36-1115800	ADDRESS CHANGES TO BE NOTED ABOVE

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

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

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

**INSTRUCTIONS TO BIDDERS**

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



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
ADJ1107

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF
TARA LYLE
304-558-2544

RFQ COPY  
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

ADJUTANT GENERAL'S DEPARTMENT  
 MOUNTAINEER CHALLENGE PROGRAM  
 CAMP DAWSON  
 240 ARMY ROAD  
 KINGWOOD, WV  
 26537

304-341-6406

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/23/2011				

BID OPENING DATE: 06/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>RENEWAL: THIS CONTRACT MAY BE RENEWED FOR REPAIR SERVICE/MAINTENANCE UPON THE MUTUAL 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>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATION IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p> <p>THIS TEAM EXHIBIT HAS BEEN REPLACED BY THE ONLINE VERSION WHICH IS AVAILABLE HERE:</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  
 ADJ1107

PAGE  
 3

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 TARA LYLE  
 304-558-2544

RFQ COPY  
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

ADJUTANT GENERAL'S DEPARTMENT  
 MOUNTAINEER CHALLENGE PROGRAM  
 CAMP DAWSON  
 240 ARMY ROAD  
 KINGWOOD, WV  
 26537

304-341-6406

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/23/2011				

BID OPENING DATE: 06/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>HTTP://WWW.STATE.WV.US/ADMIN/PURCHASE/VRC/VENPREF.PDF</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>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:-----TL/32-----</p> <p>RFQ. NO.:-----ADJ1107-----</p> <p>BID OPENING DATE:-----06/16/2011-----</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> <p>-----</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 60130  
 Charleston, WV 25305-0130

# Request for Quotation

BID NUMBER  
**ADJ1107**

PAGE  
**4**

ADDRESS CORRESPONDENCE / ATTENTION OF  
**TARA LYLE**  
**304-558-2544**

PROPERTY

RFQ COPY  
 TYPE NAME/ADDRESS HERE

PROPERTY

ADJUTANT GENERAL'S DEPARTMENT  
 MOUNTAINEER CHALLENGE PROGRAM  
 CAMP DAWSON  
 240 ARMY ROAD  
 KINGWOOD, WV  
 26537  
**304-341-6406**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/23/2011				
BID OPENING DATE: 06/16/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
CONTACT PERSON (PLEASE PRINT CLEARLY):						
----- Peter Marotta -----						
***** THIS IS THE END OF RFQ ADJ1107 ***** TOTAL:						<u>\$89,651.60</u>
<p>* Motorola's proposal is subject to Motorola's Clarifications to the West Virginia Adjutant General's Office Request for Quotation #ADJ1107 and to the attached and incorporated Communications Products Agreement or, in the alternative, a negotiated version thereof.</p> <p>CLARIFICATION to Point 9 on General TERMS PAGE</p> <p>* 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 do not conform to the specifications of bid and contract herein.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>P. Marotta</i>	TELEPHONE 410-712-4896	DATE June 16, 2011
TITLE MSSSI Vice President	FEIN 36-1115800	ADDRESS CHANGES TO BE NOTED ABOVE

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

**ADJ1107**  
**Two-way radios and accessories**

The Adjutant General's Office – Mountaineer Challenge Academy is interested in purchasing two-way radio equipment and related accessories.

**GENERAL REQUIREMENTS:**

1. Successful bidder shall warrant all equipment, parts and labor for a period of one year.
2. Training manuals and documentation on operation and procedures shall be included in the delivery.
3. Any equipment or material other than that specified herein should be supported by literature and technical data.
4. Successful vendor must be certified as a "certified reseller" for the listed products. Bidder bidding an "or equal" brand must be certified resellers of their respective brands.

**DELIVERY:**

The delivery costs must be included in the bid.

**The delivery address:**

Mountaineer Challenge Academy  
1001 Army Road, Camp Dawson  
Kingwood, West Virginia 26537

**AWARD:**

Vendors should utilize the attached quotation form for listing their costs quoted for each item listed. This contract will be awarded to one vendor. The contract will be awarded to the vendor with the most complete bid with the lowest grand total meeting the specifications

RFQ No. ADJ1107

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Jacquelyn M. Wasni, MSSSI Vice President, Motorola Solutions, Inc.

Authorized Signature: *JM Wasni* Date: June 16, 2011

State of Maryland

County of Howard, to-wit:

Taken, subscribed, and sworn to before me this 16th day of June, 2011.

My Commission expires October 16, 2013.

**AFFIX SEAL HERE**

NOTARY PUBLIC *Regan Baxter*

REGAN BAXTER  
Notary Public-Maryland  
Howard County  
My Commission Expires  
October 16, 2013



# State of West Virginia VENDOR PREFERENCE CERTIFICATE

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

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

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

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

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

Bidder: Motorola  
Date: 6/14/2011

Signed: *Peter M...*  
Title: Motorola Account Manager

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

NONE TAKEN

ATTACHMENT  
P.O.# \_\_\_\_\_

This agreement constitutes the entire agreement between the parties, and there are no other terms and conditions applicable to the licenses granted hereunder.

Agreed

\_\_\_\_\_  
Signature                      Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature                      Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Agency/Division

**AGREEMENT ADDENDUM**

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

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

ACCEPTED BY:

**STATE OF WEST VIRGINIA**

**VENDOR**

Spending Unit: \_\_\_\_\_

Company Name: \_\_\_\_\_

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



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

# Request for Quotation

REQ NUMBER  
 ADJ1107

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 TARA LYLE  
 304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE

RFQ COPY

ADJUTANT GENERAL'S DEPARTMENT  
 MOUNTAINEER CHALLENGE PROGRAM  
 CAMP DAWSON  
 240 ARMY ROAD  
 KINGWOOD, WV  
 26537  
 304-341-6406

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	INCOTERMS
06/08/2011				

BID OPENING DATE: 06/16/2011 BID OPENING TIME: 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
1. QUESTIONS AND ANSWERS ARE ATTACHED. 2. REVISED BID FORM ATTACHED. 3. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.						
END OF ADDENDUM NO. 1						
0001	1	LS		725-74		
TWO-WAY RADIOS, PORTABLE						
***** THIS IS THE END OF RFQ ADJ1107 *****						TOTAL: \$89,651.60
* MOTOROLA'S PROPOSAL is subject to Motorola's Clarifications to the West Virginia General's Office Request for Quotation #ADJ1107 and to the attached and incorporated Communications Products Agreement or, in the alternative, a negotiated version thereof.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>M. Wason</i>	* TELEPHONE 410-712-4896	DATE June 16, 2011
TITLE MSSSI Vice President	FEIN 36-1115800	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'  
 \* Motorola's proposal is subject to Motorola's Clarifications to the West Virginia Adjutant General's Office Request for Quotation #ADJ1107 and to the attached and incorporated Communications Products Agreement or, in the alternative, a negotiated version thereof.

ADJ1007  
ADDENDUM NO. 1

QUESTIONS:

**Q1:** Is this contract considered a statewide contract such that other state agencies can buy off of it?

**A1:** This RFQ is not considered a statewide contract. There is no piggyback language in the RFQ, therefore, other state agencies will not be utilizing this contract.

**Q2:** Should the control station XTL 1500 device described in item nos 18 through 23, also support ADP privacy?

**A2:** No plans of using ADP. No ADP.

**Q3:** For item 6, the paragraphs in the RFQ state only 1 year of warranty is desired, while this item asks for 2 years. Should the warranty be considered as an option or as part of the bid?

**A3:** We want the standard warranty that comes with the products. No plans of purchasing additional warranty.

CLARIFICATIONS:

1. Revised bid form attached. The "2 year repair service advantage and ENH:ADP Privacy, or equal" have been removed from the bid form.
2. Remove the Life of Contract paragraph and the renewal paragraph from the RFQ.
3. This project will not fall under any prevailing wage laws.

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

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

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

### INSTRUCTIONS TO BIDDERS

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

ADJ1107

Two-way radios

ITEM NO.	MODEL #	DESCRIPTION	QTY	UNIT PRICE	EXTENDED PRICE
		<b>Direct Bid Items</b>			
1	H66QDC9PW5BN	XTS1500 UHF M1 R1 380-470 MHZ, or equal	65	\$ 520.00	\$ 33,800.00
2	Q811	SOFTWARE P25 CONVENTIONAL, or equal	65	\$ 275.20	\$ 17,888.00
3	INTN9858	XTS1500/2500 Spare Battery, or equal	67	\$ 88.00	\$ 5,896.00
4	HLN6853	XTS1500/2500 Belt Clip, or equal	67	\$ 9.20	\$ 616.40
5	INTN1873	Single Unit Impress Charger, or Equal	67	\$ 132.00	\$ 8,844.00
6	H66SDD9PW5BN	ASTRO DIGITAL XTS1500 UHF R2 MODEL 1.5 1-5W 96 CHANNEL (DISPLAY), or equal	2	\$ 600.00	\$ 1,200.00
7	Q574BJ	ENH: TRUNKING 9600 BAUD, or equal	2	\$ 744.00	\$ 1,488.00
8	Q811	ENH: SOFTWARE P25 CONVENTIONAL, or equal	2	\$ 275.20	\$ 560.40
9	T5365	QUANTAR Station, or equal	1	\$ 7,220.00	\$ 7,220.00
10	X640	380-400 MHZ Operation ( 100-25W), or equal	1	\$ 5,168.00	\$ 5,168.00
11	X806 D	Conventional CAI Operation, or equal	1	\$ 2,784.00	\$ 2,784.00
12	X580	REPEATER OPERATION	1		
13	X87	Delete CABINET	1	\$ (100.00)	\$ (100.00)
14	X286	MULTI PL COMPATIBILITY	1	\$ 368.00	\$ 368.00
15	X288	Provides two modes of operation: user selects one or the other with the RSS: REMOTE RSS Capability	1	\$ 160.00	\$ 160.00
16	M28QSS9PW1 N	ASTRO® Digital XTL 1500 MOBILE, or equal	1	\$ 1,280.00	\$ 1,280.00
17	G964	9600 ASTRO DIGITAL ENHANCE, or equal	1	\$ 664.00	\$ 664.00
18	G89	NO ANTENNA NEEDED	1		
19	G91	ADD: CONTROL STATION POWER SUPPLY	1	\$ 215.20	\$ 215.20
20	G798	CONTROL STATION MOUNT	1	\$ 38.40	\$ 38.40
21	W382	CONTROL STATION MICROPHONE	1	\$ 135.20	\$ 135.20
22	L3213	MC1000 BASIC TONE DESKSET, or equal	1	\$ 420.00	\$ 840.00
23	L3276AC	TOUR REMOTE ADAPTER	1	\$ 556.00	\$ 556.00
24	DDN6340	GENERIC RADIO CABLE WITH UNTERMINATED BARE LEADS	1	\$ 40.00	\$ 40.00
		TRC/DC Remote Adapters (L3276/L3277). Provides 10FT cable with DB 25 connector on one end.			
		<b>GRAND TOTAL</b>			\$ 89,651.60
	Vendor Name:	Motorola Solutions, Inc.			
	Contact Name:	Peter Marotta			
	Vendor Address:	7031 Columbia Gateway Dr. 3rd Floor, Columbia, MD 21046			
	Phone No.:	304-860-5051			
	Fax No.:	410-712-4996			

ADJ1107

Two-way radios

ITEM NO.	MODEL #	DESCRIPTION	QTY	UNIT PRICE	EXTENDED PRICE
<p>The items listed on this page can directly substitute for similarly numbered items on the previous page. The products listed on this page are the next generation versions of the previous page items. These can be considered as options to the previous page items and are fully equivalent.</p>					
1	H98QDD9PW5 N	MOTOROLA EQUIVALENT BID APX6000 UHF R1 MODEL 1 PORTABLE	65	\$ 1,360.00	\$ 88,400.00
2	Q806	ADD: ASTRO DIGITAL CAL OPERATION	65	\$ 412.00	\$ 26,780.00
3	NNTN7037	APX 7000 IMPRES NIMH 2100MAH SUBMERSIBLE (IP67) BATTERY	67	\$ 100.00	\$ 6,700.00
4	NTN8266B	2.5" PLASTIC BELT CLIP ATTACHMENT	67	\$ 9.60	\$ 643.20
5	WPLN7080	APX 7000 IMPRES CG SU APX7000 US/NA/CA/IL	67	\$ 100.00	\$ 6,700.00
6	H98SDF9PW6 N	APX6000 UHF R2 MODEL 2 PORTABLE	2	\$ 1,760.00	\$ 3,520.00
7	Q806	ADD: ASTRO DIGITAL CAL OPERATION	2	\$ 412.00	\$ 824.00
8.a	H38	ADD: SMARTZONE OPERATION	2	\$ 960.00	\$ 1,920.00
8.b	Q361	ADD: P25 9600 BAUD TRUNKING	2	\$ 240.00	\$ 480.00
9	T7039A	GTR 8000 BASE RADIO	1	\$ 4,800.00	\$ 4,800.00
10	X640AL	ADD : UHF R2 MID POWER (435-624)	1	\$ 5,040.00	\$ 5,040.00
11	CA01484AA*	ADD : PROJECT 25 FDMA CONVENTIONAL SOFTWARE	1	\$ 5,200.00	\$ 5,200.00
12	X153AW	ADD : RACK MOUNT HARDWARE	1	\$ 40.00	\$ 40.00
13	DLN8459R	CONFIGURATION/SERVICE SOFTWARE	1	\$ 20.00	\$ 20.00
14	n/a	n/a			
15	n/a	n/a			
16	M25QSS9PW1 N	APX6500 UHF R1 MID POWER MOBILE	1	\$ 1,519.20	\$ 1,519.20
17a	G806	ENH: ASTRO DIGITAL CAL OP APX	1	\$ 412.00	\$ 412.00
17b	G48	ENH: CONVENTIONAL OPERATION APX6500	1	\$ 400.00	\$ 400.00
17c	G442	ADD: APX O5 CONTROL HEAD	1	\$ 345.60	\$ 345.60
17d	G444	ADD: CONTROL HEAD SOFTWARE	1	\$ -	\$ -
18	G66	ADD: DASH MOUNT 05	1	\$ 100.00	\$ 100.00
18a	G89	ADD: NO RF ANTENNA NEEDED	1	\$ -	\$ -
18b	G90	ADD: NO MICROPHONE NEEDED	1	\$ -	\$ -
18c	G142	ADD: NO SPEAKER NEEDED	1	\$ -	\$ -
19	G91	ADD: CONTROL STATION POWER SUPPLY	1	\$ 215.20	\$ 215.20
20	W665	ADD: CONTROL STATION OPERATION	1	\$ 56.00	\$ 56.00
21	W382	ADD: CONTROL STATION DESK GCAI MIC	1	\$ 135.20	\$ 135.20
22	L3213	MC1000 BASIC TONE DESKSET	1	\$ 420.00	\$ 420.00
23	L3276AC	PHONE REMOTE ADAPTER	1	\$ 556.00	\$ 556.00
24	DDN6340	GENERATOR RADIO CABLE WITH UNTERMINATED BARE LEADS	1	\$ 40.00	\$ 40.00
TRC/DCC Remote Adapters (L3276/L3277). Provides 10FT cable with DB 25 connector on one end.					
GRAND TOTAL					\$ -
Vendor Name: Motorola Solutions, Inc.					
Contact Name: Peter Marotta					
Vendor Address: 7031 Columbia Gateway Dr. 3rd Floor, Columbia, MD 21046					
Phone No. 304-860-5051					
Fax No. 410-712-4996					
					2 of 2



EXHIBIT 10

REQUISITION NO.: .....

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED  
ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY  
PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1 .....

NO. 2 .....

NO. 3 .....

NO. 4 .....

NO. 5 .....

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE  
ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. VENDOR  
MUST CLEARLY UNDERSTAND THAT ANY VERBAL  
REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY  
ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES  
AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE  
INFORMATION ISSUED IN WRITING AND ADDED TO THE  
SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.



SIGNATURE

Jacquelyn M. Wasni  
Motorola Solutions, Inc.

COMPANY

June 16, 2011

DATE

# State of West Virginia



## Certificate

*I, Natalie E. Tennant, Secretary of State of the  
State of West Virginia, hereby certify that*

**MOTOROLA SOLUTIONS, INC.**

a corporation formed under the laws of Delaware filed an application to be registered as a foreign corporation authorizing it to transact business in West Virginia. The application was found to conform to law and a "Certificate of Authority" was issued by the West Virginia Secretary of State on May 07, 1973.

I further certify that the corporation has not been revoked by the State of West Virginia nor has a Certificate of Withdrawal been issued to the corporation by the West Virginia Secretary of State.

Accordingly, I hereby issue this

## CERTIFICATE OF AUTHORIZATION



*Given under my hand and the  
Great Seal of the State of  
West Virginia on this day of  
June 15, 2011*

*Natalie E. Tennant*

*Secretary of State*

## Communications Products Agreement

Motorola Solutions, Inc. ("Motorola"), and the State of West Virginia ("Customer") enter into this "Agreement," pursuant to which Customer will purchase and Motorola will sell the Products, as described below. Motorola and Customer may be referred to individually as a "Party" and collectively as the "Parties." For good and valuable consideration, the Parties agree as follows:

### Section 1 EXHIBITS

The exhibits listed below are incorporated into and made a part of this Agreement. In interpreting this Agreement and resolving any ambiguities, the main body of this Agreement takes precedence over the exhibits and any inconsistency between the exhibits will be resolved in their listed order.

- Exhibit A Motorola "Software License Agreement"  
Exhibit B "Technical and Implementation Documents"  
B-1 "List of Products" dated June 16, 2011  
B-2 "Statement of Work" dated \_\_\_\_\_

### Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

- 2.1. "Confidential Information" means any information that is disclosed in written, graphic, verbal, or machine-recognizable form, and is marked, designated, or identified at the time of disclosure as being confidential or its equivalent; or if the information is in verbal form, it is identified as confidential at the time of disclosure and is confirmed in writing within thirty (30) days of the disclosure. Confidential information does not include any information that: is or becomes publicly known through no wrongful act of the receiving Party; is already known to the receiving Party without restriction when it is disclosed; is or becomes, rightfully and without breach of this Agreement, in the receiving Party's possession without any obligation restricting disclosure; is independently developed by the receiving Party without breach of this Agreement; or is explicitly approved for release by written authorization of the disclosing Party.
- 2.2. "Contract Price" means the price for the Products, excluding applicable sales or similar taxes and freight charges.
- 2.3. "Effective Date" means that date upon which the last Party executes this Agreement.
- 2.4. "Equipment" means the equipment listed in the List of Products that Customer purchases from Motorola under this Agreement.
- 2.5. "Force Majeure" means an event, circumstance, or act of a third party that is beyond a Party's reasonable control (e.g., an act of God, an act of the public enemy, an act of a government entity, strikes or other labor disturbances, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, and riots).
- 2.6. "Infringement Claim" means a third party claim alleging that the Equipment manufactured by Motorola or the Motorola Software directly infringes a United States patent or copyright.
- 2.7. "Motorola Software" means Software that Motorola or its affiliated company owns.
- 2.8. "Non-Motorola Software" means Software that another party owns.
- 2.9. "Open Source Software" (also called "freeware" or "shareware") software with either freely obtainable source code, license for modification, or permission for free distribution.
- 2.10. "Products" mean the Equipment and Software provided by Motorola under this Agreement.

2.11. "Proprietary Rights" means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.

2.12. "Software" means the Motorola Software and Non-Motorola Software in object code format that is furnished with the Products.

2.13. "Warranty Period" means one (1) year from the date of shipment of the Products.

### Section 3 SCOPE OF AGREEMENT AND TERM

3.1. SCOPE OF WORK. Motorola will provide and install (if applicable) the Products, and perform its other contractual responsibilities, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.

3.2. CHANGE ORDERS. Either Party may request changes within the general scope of this Agreement. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

3.3. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the Effective Date and continues until the expiration of the Warranty Period or three (3) years from the Effective Date, whichever occurs last.

3.4. ADDITIONAL EQUIPMENT OR SOFTWARE. During the Term of this Agreement, Customer may order additional Equipment or Software if it is then available. Each order must refer to this Agreement and must specify the pricing and delivery terms. Notwithstanding any additional or contrary terms in the order, the applicable provisions of this Agreement (except for pricing, delivery, and payment terms) will govern the purchase and sale of the additional Equipment or Software. Payment is due within twenty (20) days after the invoice date, and Motorola will send Customer an invoice as the additional Equipment is shipped or Software is licensed. Alternatively, Customer may register with and place orders through Motorola Online ("MOL"), and this Agreement will be the "Underlying Agreement" for those MOL transactions rather than the MOL On-Line Terms and Conditions of Sale. MOL registration and other information may be found at <http://www.motorola.com/businessandgovernment/> and the MOL telephone number is (800) 814-9601.

3.5. MAINTENANCE SERVICE. This Agreement does not cover maintenance or support of the Products except as provided under the warranty. If Customer wishes to purchase maintenance or support, Motorola will provide a separate maintenance and support proposal upon request.

3.6. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.7. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software. All Open Source Software is licensed to Customer in accordance with, and Customer agrees to abide by, the provisions of the standard license of the copyright owner and not the Software License Agreement. Upon request by Customer, Motorola will use commercially reasonable

efforts to determine whether any Open Source Software will be provided under this Agreement; and if so, identify the Open Source Software and provide to Customer a copy of the applicable standard license (or specify where that license may be found); and provide to Customer a copy of the Open Source Software source code if it is publicly available without charge (although a distribution fee or a charge for related services may be applicable).

**3.8. OPTIONAL EQUIPMENT OR SOFTWARE.** This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for one (1) year after the Effective Date), Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Motorola which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

#### Section 4 PERFORMANCE SCHEDULE

If this Agreement includes the performance of services, the Statement of Work will describe the performance schedule.

#### Section 5 CONTRACT PRICE, PAYMENT, AND INVOICING

- 5.1. **CONTRACT PRICE.** The Contract Price in U.S. dollars is \$ \_\_\_\_\_.
- 5.2. **INVOICING AND PAYMENT.** Motorola will submit invoices to Customer for Products when they are shipped and for services, if applicable, when they are performed. Customer will make payments to Motorola within twenty (20) days after the date of each invoice. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the maximum allowable rate. For Customer's reference, the Federal Tax Identification Number for Motorola Solutions, Inc. is 95-1115800.
- 5.3. **FREIGHT, TITLE, AND RISK OF LOSS.** Motorola will pre-pay and add all freight charges to the invoices. Title and risk of loss to the Equipment will pass to Customer upon shipment. Title to Software will not pass to Customer at any time. Motorola will pack and ship all Equipment in accordance with good commercial practices.

5.4. **INVOICING AND SHIPPING ADDRESSES.** Invoices will be sent to the Customer at the following address:

\_\_\_\_\_

The address which is the ultimate destination where the Equipment will be delivered to Customer is:

\_\_\_\_\_

The Equipment will be shipped to the Customer at the following address (Insert if this information is known):

\_\_\_\_\_

Customer may change this information by giving written notice to Motorola.

#### Section 6 SITES AND SITE CONDITIONS

6.1. **ACCESS TO SITES.** If Motorola is providing installation or other services, Customer will provide all necessary construction and building permits, licenses, and the like; and access to the work sites or vehicles identified in the Technical and Implementation Documents as reasonably requested by Motorola so that it may perform its contractual duties.

6.2. **SITE CONDITIONS.** If Motorola is providing installation or other services at Customer's sites, Customer will ensure that these work sites be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate: physical space, air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the Products.

#### Section 7 ACCEPTANCE

Acceptance of the Products will occur upon delivery to Customer unless the Statement of Work provides for acceptance verification or testing, in which case acceptance of the Products will occur upon successful completion of the acceptance verification or testing. Notwithstanding the preceding sentence, Customer's use of the Products for their operational purposes will constitute acceptance.

#### Section 8 REPRESENTATIONS AND WARRANTIES

8.1. **EQUIPMENT WARRANTY.** During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship.

8.2. **MOTOROLA SOFTWARE WARRANTY.** Unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Motorola Software in accordance with the terms of the Software License Agreement and the provisions of this Section that are applicable to the Motorola Software. TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERCEDES THIS SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

8.3. **EXCLUSIONS TO EQUIPMENT AND MOTOROLA SOFTWARE WARRANTIES.** These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Motorola Software in other than its normal, customary, and authorized manner; accident, liquid, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

8.4. **WARRANTY CLAIMS.** To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or refund the price of the defective Equipment or Motorola Software. That action will be the full extent of Motorola's liability for the warranty claim. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced

product is warranted for the balance of the original applicable Warranty Period. All replaced products or parts will become the property of Motorola.

**8.5. ORIGINAL END USER IS COVERED.** These express limited warranties are extended by Motorola to the original user purchasing the Products for commercial, industrial, or governmental use only, and are not assignable or transferable.

**8.6. DISCLAIMER OF OTHER WARRANTIES. THESE WARRANTIES ARE THE COMPLETE WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

#### **Section 9 DELAYS**

Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the performance schedule for a time period that is reasonable under the circumstances.

#### **Section 10 DISPUTES**

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

**10.1. GOVERNING LAW.** This Agreement will be governed by and construed in accordance with the laws of the State in which the Products are delivered.

**10.2. NEGOTIATION.** Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

**10.3. MEDIATION.** The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

**10.4. LITIGATION, VENUE AND JURISDICTION.** If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in the state in which the Products are delivered. Each Party irrevocably agrees to submit to the exclusive jurisdiction of the courts in such state over any claim or matter arising under or in connection with this Agreement.

**10.5. CONFIDENTIALITY.** All communications pursuant to subsections 10.2 and 10.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of these Dispute resolution procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either Party.

#### **Section 11 DEFAULT AND TERMINATION**

If either Party fails to perform a material obligation under this Agreement, the other Party may consider the non-performing Party to be in default (unless a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of the default. Except for a default by Customer for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting Party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting Party will begin implementing the cure plan immediately after receipt of notice by the other Party that it approves the plan. If Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan. If the non-performing Party fails to cure the default, the performing Party may terminate any unfulfilled portion of this Agreement and recover damages as permitted by law and this Agreement.

#### **Section 12 PATENT AND COPYRIGHT INFRINGEMENT INDEMNIFICATION**

**12.1.** Motorola will defend at its expense any suit brought against Customer to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Customer promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Customer providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the same conditions, Motorola will pay all damages finally awarded against Customer by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

**12.2.** If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable charge for depreciation. The depreciation amount will be calculated based upon generally accepted accounting standards.

**12.3.** Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. In no event will Motorola's liability resulting from its indemnity obligation to Customer extend in any way to royalties payable on a per use basis or the Customer's revenues, or any royalty basis other than a reasonable royalty based upon revenue derived by Motorola from Customer from sales or license of the infringing Motorola Product.

**12.4.** This Section 12 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 12 are subject to and limited by the restrictions set forth in Section 13.

## Section 15 GENERAL

15.1. **TAXES.** The Contract Price does not include excise, sales, lease, use, property, or other taxes, assessments or duties, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest and penalties) within twenty (20) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting taxes on its income or net worth.

15.2. **ASSIGNABILITY AND SUBCONTRACTING.** Except as provided herein, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Customer. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other Party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

15.3. **WAIVER.** Failure or delay by either Party to exercise any right or power under this Agreement will not be a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving Party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

15.4. **SEVERABILITY.** If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed and the remainder of this Agreement will continue in full force and effect.

15.5. **INDEPENDENT CONTRACTORS.** Each Party will perform its duties under this Agreement only as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

15.6. **HEADINGS AND SECTION REFERENCES; CONSTRUCTION.** The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

15.7. **ENTIRE AGREEMENT.** This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which shall constitute one and the same instrument. A facsimile copy or computer image, such as a PDF or lift image, or a signature shall be treated as and shall have the same effect as an original signature. In addition, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each Party signs that document.

## Section 13 LIMITATION OF LIABILITY

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or services with respect to which losses or damages are claimed. **ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT; THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT.** This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than one (1) year after the accrual of the cause of action, except for money due upon an open account.

## Section 14 CONFIDENTIALITY AND PROPRIETARY RIGHTS

### 14.1. CONFIDENTIAL INFORMATION.

During the term of this Agreement, the Parties may provide each other with Confidential Information. Each Party will maintain the confidentiality of the other Party's Confidential Information and not disclose it to any third party, except as authorized by the disclosing Party in writing or as required by a court of competent jurisdiction; restrict disclosure of the Confidential Information to its employees who have a "need to know" and not copy or reproduce the Confidential Information; take necessary and appropriate precautions to guard the confidentiality of the Confidential Information, including informing its employees who handle the Confidential Information that it is confidential and is not to be disclosed to others, but these precautions will be at least the same degree of care that the receiving Party applies to its own confidential information and will not be less than reasonable care; and use the such Confidential Information only in furtherance of the performance of this Agreement. Confidential Information is and will at all times remain the property of the disclosing Party, and no grant of any proprietary rights in the Confidential Information is given or intended, including any express or implied license, other than the limited right of the recipient to use the Confidential Information in the manner and to the extent permitted by this Agreement.

### 14.2. PRESERVATION OF MOTOROLA'S PROPRIETARY RIGHTS.

Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola's Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

15.8. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either delivered personally or sent to the address shown below by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt.

Customer \_\_\_\_\_  
Attn: \_\_\_\_\_  
Motorola Solutions, Inc.  
Attn: \_\_\_\_\_  
fax: \_\_\_\_\_  
fax: \_\_\_\_\_

15.9. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

15.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

15.11. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.6 (Motorola Software), Section 3.7 (Non-Motorola Software); if any payment obligations exist, Sections 5.1 and 5.2 (Contract Price and Invoicing and Payment); Subsection 9.7 (Disclaimer of Implied Warranties); Section 10 (Disputes); Section 13 (Limitation of Liability); Section 14 (Confidentiality and Proprietary Rights); and all of the General terms in this Section 15.

The Parties hereby enter into this Agreement as of the Effective Date.

Motorola Solutions, Inc. State of West Virginia

By: \_\_\_\_\_ Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Exhibit A  
SOFTWARE LICENSE AGREEMENT

This Exhibit A Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and State of West Virginia ("Licensee").

For good and valuable consideration, the parties agree as follows:

Section 1 DEFINITIONS

- 1.1 "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.
- 1.2 "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).
- 1.3 "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.
- 1.4 "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.
- 1.5 "Primary Agreement" means the agreement to which this exhibit is attached.

1.6 "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or system damaged.

1.7 "Software" (i) means proprietary software in object code format, and adaptations, translations, de- compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

Section 2 SCOPE

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary Software or products containing embedded or pre-loaded proprietary Software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the Software and Documentation.

Section 3 GRANT OF LICENSE

3.1. Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; (ii) identify the Open Source Software and provide Licensee a copy of the applicable Open Source Software License (or specify where that license may be found); and, (iii) provide Licensee a copy of the Open Source Software source code, without charge, if it is publicly available (although distribution fees may be applicable).

#### Section 4 LIMITATIONS ON USE

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; provided that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4. When using Motorola's Radio Service Software ("RSS"), Licensee must purchase a separate license for each location at which Licensee uses RSS. Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

4.5. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and

security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

#### Section 5 OWNERSHIP AND TITLE

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

#### Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY

6.1. The commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software.

6.2. Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.

#### Section 7 TRANSFERS

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee



paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than RSS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; provided that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

#### **Section 8 TERM AND TERMINATION**

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

#### **Section 9 UNITED STATES GOVERNMENT LICENSING PROVISIONS**

This Section applies if Licensee is the United States Government or a United States Government agency. Licensee's use, duplication or disclosure of the Software and Documentation under Motorola's copyrights or trade secret rights is subject to the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless they are being provided to the Department of Defense. If the Software and Documentation are being provided to the Department of Defense, Licensee's use, duplication, or disclosure of the Software and Documentation is subject to the restricted rights set forth in subparagraph (c)(7)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. The Software and Documentation may or may not include a Restricted Rights notice, or other notice referring to this Agreement. The provisions of this Agreement will continue to apply, but only to the extent that they are consistent with the rights provided to the Licensee under the provisions of the FAR or DFARS mentioned above, as applicable to the particular procuring agency and procurement transaction.

#### **Section 10 CONFIDENTIALITY**

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and Confidential Information and are Motorola's trade secrets, and that the provisions in the Primary Agreement concerning Confidential Information apply.

#### **Section 11 LIMITATION OF LIABILITY**

The Limitation of Liability provision is described in the Primary Agreement.

#### **Section 12 NOTICES**

Notices are described in the Primary Agreement.

#### **Section 13 GENERAL**

13.1. COPYRIGHT NOTICES. The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2. COMPLIANCE WITH LAWS. Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3. ASSIGNMENTS AND SUBCONTRACTING. Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.4. GOVERNING LAW. This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

13.5. THIRD PARTY BENEFICIARIES. This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.6. SURVIVAL. Sections 4, 5, 6.3, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.7. ORDER OF PRECEDENCE. In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

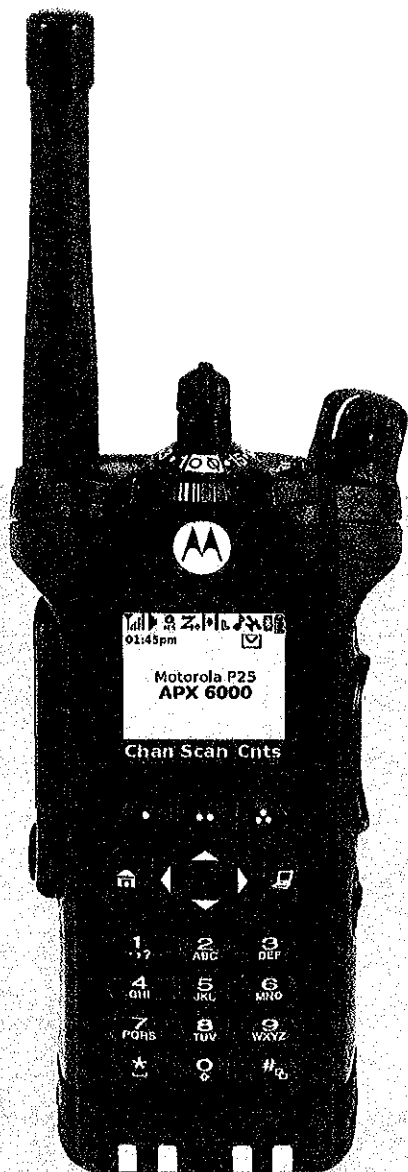
13.8. SECURITY. Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

## SPECIFICATION SHEET



# APX™ 6000

## PROJECT 25 PORTABLE RADIO



Delivering outstanding performance in a compact form factor without sacrificing the features you need most. The APX™ 6000 is the next generation of ruggedly-reliable performers that gives you the advanced features such as Mission Critical Wireless and GPS location tracking in the smallest, P25 Phase 2 capable radio available. Whether you're on patrol or racing to a fire, the APX 6000 puts you in greater control of your safety, response time and technology investment.

Focus on the task not the technology, with the real-world ready radio that turns mission critical into mission complete.

- Channel Capacity:
  - 870 standard
  - 1250 max
- Universal Push-to-Talk
- T-Grip
- Dual Battery Latch
- Orange emergency button
- 16 position rotary knob
- 2 position concentric switch
- 3 position toggle switch
- 3 programmable side buttons
- Transmit LED indicator
- Backlit Keypad:
  - Home and Data buttons
  - 3 soft keys
  - 4 direction navigation key
  - 4 x 3 keypad
- Full Bitmap Display:
  - 2 lines of icons
  - 4 lines x 14 characters of text
  - Status icons

### CUTTING-EDGE FEATURES IN A COMPACT SIZE

- Innovative T-grip design gives you a secure grip and better control
- High-contrast color display is easy to read in different lighting conditions
- Top display is quick to read while looking down, at a glance or from an angle
- Universal push-to-talk button with enhanced grooves is easy to find by "touch"

### EXCELLENT AUDIO YOU CAN HEAR LOUD AND CLEAR

- Excellent audio ensures voice communications are intelligible, even in high noise environments
- Dual sided 2 microphone noise canceling technology
- Equipped with the latest AMBE digital voice vocoder

### FUTURE-READY TECHNOLOGY TO RELY ON TODAY

- Smallest P25 Phase 2 capable radio available that provides twice the voice capacity
- Backwards and forwards compatible with all Motorola mission critical radio systems
- Supports applications like Mission Critical Wireless and GPS location tracking for greater safety



# APX™ 6000 SPECIFICATIONS

## FEATURES AND BENEFITS:

- Available in 700/800 MHz, VHF, and UHF Range 1 bands
- Trunking standards supported:
  - Clear or digital encrypted ASTRO®25 Trunked Operation
  - Capable of SmartZone®, SmartZone Omnilink, SmartNet®
- Analog MDC-1200 and Digital APCO P25 Conventional System Configurations
- Narrow and wide bandwidth digital receiver (6.25 kHz / 12.5 kHz / 25 kHz)
- Embedded digital signaling (ASTRO & ASTRO 25)
- Intelligent Lighting
- Radio Profiles
- Unified Call List (Models 2 and 3 only)
- User programmable voice announcement
- Meets Applicable Mil Specs 810C, D, E, F and G
- Immersible IP67 standard (submersible 1 meter, 30 minutes)\*
- Yellow and green colored housing options
- Custom recessed label areas

## Superior Audio Features:

- 0.5 W high audio speaker
- Dual microphones
- 2-mic noise canceling technology
- Utilizes Windows XP, Vista and Windows 7 Customer Programming Software (CPS)
- Supports USB communications
- Built in FLASHport™ support
- Full portfolio of accessories including IMPRES batteries, chargers and audio devices

## OPTIONAL FEATURES:

- GPS Location Tracking
- Mission Critical Wireless
- Enhanced Encryption capability
- Programming Over Project 25
- Over the Air Rekey
- Text Messaging

\* Immersible radios meet industry standards (IPx7) for immersion.

## TRANSMITTER – TYPICAL PERFORMANCE SPECIFICATIONS

	700/800	VHF	UHF Range 1
Frequency Range/Bandsplits	700 MHz 800 MHz	763-775, 793-805 MHz 806-824, 851-869 MHz	136-174 MHz 380-470 MHz
Channel Spacing		25/20/12.5 kHz	25/20/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj <sup>1</sup>	700 MHz 800 MHz	1-2.5 Watts 1-3 Watts	1-6 Watts 1-5 Watts
Frequency Stability <sup>1</sup> (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %
Modulation Limiting <sup>1</sup>		±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz
Emissions (Conducted and Radiated) <sup>1</sup>		-75 dB	-75 dB
Audio Response <sup>1</sup>		+1, -3 dB	+1, -3 dB
FM Hum & Noise		-47 dB	-47 dB
Audio Distortion <sup>1</sup>		< 1 %	0.50 %

## BATTERIES FOR APX 6000

Battery Capacity / Type	Dimensions (HxWxD)	Weight	Battery Part Number	Battery Capacity
Li-Ion IMPRES 2150 mAh IP67	3.39" x 2.34" x 1.46"	5 oz	PMNN4403	2150 mAh
Li-Ion IMPRES 2900 mAh IP67	3.07" x 2.34" x 1.65"	6.53 oz	NNTN7038	2900 mAh
Li-Ion IMPRES 4200 mAh IP67	5.07" x 2.34" x 1.65"	11.29 oz	NNTN7034	4200 mAh
Li-Ion IMPRES 4100 mAh FM <sup>2</sup> IP67	5.07" x 2.34" x 1.65"	11.29 oz	NNTN7033	4100 mAh
NiMH IMPRES 2100 mAh IP67	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7037	2100 mAh
NiMH IMPRES 2000 mAh FM <sup>2</sup> IP67	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7036	2000 mAh
NiMH IMPRES 2000 mAh FM <sup>2</sup> Rugged	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7035	2000 mAh
NiMH IMPRES 2100 mAh Rugged	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7573	2100 mAh

**RADIO MODELS**

**MODEL 1**

**MODEL 2**

**MODEL 3**

Display	Full bitmap monochromatic LCD top display 1 line text x 8 characters 1 line of icons No menu support Multi-color backlight		Top display plus: Full bitmap color LCD display 4 lines of text x 14 characters 2 lines of icons 1 menu line x 3 menus White backlight		Top display plus: Full bitmap color LCD display 4 lines of text x 14 characters 2 lines of icons 1 menu line x 3 menus White backlight	
Keypad	none		Backlight keypad 3 soft keys 4 direction Navigation key		Backlight keypad 3 soft keys 4 direction navigation key 4x3 keypad Home and Data buttons	
Channel Capacity	96		870		870	
FLASHport Memory	64 MB		64 MB		64 MB	
700/800 MHz (764-869 MHz)	H98UCD9PW5AN	Q360CY/Q360EF	H98UCF9PW6AN	Q360CY/Q360EF	H98UCH9PW7AN	Q360CY/Q360EF
VHF (136-174 MHz)	H98KGD9PW5AN	Q360DD/Q360EG	H98KGF9PW6AN	Q360DD/Q360EG	H98KGH9PW7AN	Q360DD/Q360EG
UHF Range1 (380-470 MHz)	H98QDD9PW5AN	Q360DA/Q360EH	H98QDF9PW6AN	Q360DA/Q360EH	H98QDH9PW7AN	Q360DA/Q360EH
Buttons & Switches	Large PTT button • Angled On/Off volume knob • Orange emergency button • 16 position top-mounted rotary knob 2-position concentric switch • 3-position toggle switch • 3 programmable side buttons					
<b>Transmitter Certification</b>						
700/800 (764-869 MHz)	AZ489FT5859/ AZ489FT5863					
VHF (136-174 MHz)	AZ489FT3824/ AZ489FT3829					
UHF Range1 (380-470 MHz)	AZ489FT4899/ AZ489FT4892					
<b>FCC Emission Designators</b>						
FCC Emission Designators	11K0F3E, 16K0F3E, 8K10F1D, 8K10F1E, 8K10F1W, 20K0F1E					
<b>Power Supply</b>						
Power Supply	One rechargeable Li-Ion 2150 mAh battery standard, or or high cap Li-Ion					

**RECEIVER – TYPICAL PERFORMANCE SPECIFICATIONS**

		700/800	VHF	UHF Range 1
Frequency Range/Bandsplits	700 MHz 800 MHz	763-775, 793-805 MHz 806-824, 851-869 MHz	136-174 MHz	380-470 MHz
Channel Spacing		25/20/12.5 kHz	25/20/12.5 kHz	25/20/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at Rated <sup>1</sup>		500mW	500mW	500mW
Frequency Stability <sup>1</sup> (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %
Analog Sensitivity <sup>2</sup>	12 dB SINAD	0.250 µV	0.216 µV	0.234 µV
Digital Sensitivity <sup>2</sup>	1% BER (800 MHz) 5% BER	0.347 µV (0.333 µV) 0.251 µV	0.277 µV 0.188 µV	0.307 µV 0.207 µV
Selectivity <sup>1</sup>	25 kHz channel 12.5 kHz channel	75.7 dB 67.5 dB	79.3 dB 70 dB	78.3 dB 68.1 dB
Intermodulation		80 dB	80.5 dB	80.2 dB
Spurious Rejection		76.6 dB	93.2 dB	80.3 dB
FM Hum and Noise	25 kHz 12.5 kHz	-54 dB -48 dB	-53.8 dB -48 dB	-53.5 dB -47.4 dB
Audio Distortion <sup>1</sup>		0.9 %	1.20 %	0.91 %

APX™ 6000 SPECIFICATIONS

PORTABLE MILITARY STANDARDS 810 C, D, E, F & G										
	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Basic Hot	501.5	I/A1, II/A2
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II/C1
Temperature Shock	503.1	I	503.2	I/A1C3	503.3	I/A1C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	Only 1 Proc	507.5	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	Only 1 Proc	509.5	Only 1 Proc
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Blowing Sand	Only 1 Proc	Only 1 Proc	510.2	II	510.3	II	510.4	II	510.5	II
Immersion	512.1	I	512.2	I	512.3	I	512.4	I	512.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.2	I, III, V	516.3	I, V, VI	516.4	I, V, VI	516.5	I, V, VI	516.6	I, V, VI
Shock (Drop)	516.2	II	516.2	IV	516.4	IV	516.5	IV	516.6	IV

\* Applicable to Rugged products only

DIMENSIONS OF THE RADIOS WITHOUT BATTERY		
	Inches	Millimeters
Length	5.47	139
Width Push-To-Talk button	2.39	60.7
Depth Push-To-Talk button	1.47	1.4
Width Top	3.32	84.3

GPS SPECIFICATIONS	
Channels	12
Tracking Sensitivity	-159 dBm
Accuracy <sup>6</sup>	<10 meters (95%)
Cold Start	<60 seconds (95%)
Hot Start	<10 seconds (95%)

**SPECIFICATION SHEET  
PRELIMINARY**



# APX™ 6500

## PROJECT 25 MOBILE RADIO

We've put exceptional flexibility into an advanced mission critical mobile radio that's easy to operate and intuitive to use. The APX 6500 P25 mobile allows users to choose from 2 control heads, mid and high power models and multiple installation configurations in an easy to install design. Innovative safety features such as GPS location tracking, intelligent lighting and one-touch controls help to keep first responders safer than ever before.

Focus on the task not the technology, with the hardworking mission critical mobile that turns mission critical into mission complete.

### FLEXIBLE PLATFORM

- Interchangeable control heads (O3 and O5) and transceivers (mid power and high power). Dual control head support offered on the O5
- O3 hand held control head – this unique, palm-sized device is easy to read and operate, with its large color display and keypad
- O5 control head – gives you a rugged display, easy-to-use controls and five programmable soft buttons for even more radio flexibility

### EASY TO INSTALL AND EFFORTLESS TO USE

- Mid-power model fits into any existing XTL footprint, so you can reuse mounting holes and cables
- High-power model trunnion design lets you remove the radio without removing the cables
- 12 character RF ID label helps you track information without uninstalling your radio

### CUTTING-EDGE TECHNOLOGY AND ADVANCED FEATURES

- Project 25 Phase 2 technology provides twice the voice capacity
- Integrated GPS lets you locate and track an individual or vehicle
- Advanced features like intelligent lighting, radio profiles and text messaging improve communication and coordination





## APX™ 6500 SPECIFICATIONS

### FEATURES AND BENEFITS:

Available in 700/800 frequency bands  
Up to 870 Channels

Trunking Standards supported:

- Clear or digital encrypted Trunked Operation
- Capable of SmartZone®, SmartZone Omnilink, SmartNet®

Analog MDC-1200 and Digital APCO P25 Conventional System

Configurations

Narrow and wide bandwidth digital receiver (6.25kHz/12.5kHz/25kHz)

Embedded digital signaling (ASTRO and ASTRO 25)

Integrated GPS capable

Integrated Encryption Hardware

Intelligent lighting

Radio profiles

Unified Call List

Meets applicable MIL-STD 810C, D, E, F and G  
Ships standard IP54

Utilizes Windows XP, Vista and Windows 7  
Customer Programming Software (CPS)

- Supports USB Communications
- Built in FLASHport™ support

Re-use of most XTAL™ accessories, plus new IMPRES accessories

### OPTIONAL FEATURES:

Enhanced Encryption Software Options  
Programming over Project 25 (POP25)

Text Messaging

Over the Air Re-Key (OTAR)

12 character RF ID asset tracking

Tactical OTAR

### TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

	700 MHz	800 MHz
Frequency Range/Bandsplits	764-776 794-806	806-825 851-870
Channel Spacing	25/12.5 kHz	25/20/12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj*	10-30 Watts Max	10-30 Watts Max
Frequency Stability* (-30°C to +60°C; +25°C Ref.)	±0.00015 %	±0.00015 %
Modulation Limiting*	±5 kHz /±2.5 kHz	±5 kHz /±4 kHz (NPSPAC) /±2.5 kHz
Modulation Fidelity (C4FM) 12.5kHz Digital Channel	±2.8 kHz	±2.8 kHz
Emissions* Conducted* Radiated*	-70/-85 dBc -20/-40 dBm	-70 dBc -20 dBm
Audio Response*	+1, -3 dB (EIA)	+1, -3 dB (EIA)
FM Hum & Noise (25 & 20 KHz /12.5 KHz)	40/34 dB	40/34 dB
Audio Distortion*	2 %	2 %

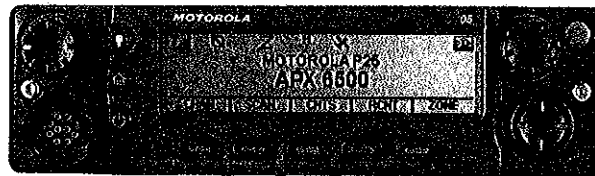
### DIMENSIONS

	Inches	Millimeters	
Mid Power Radio Transceiver	2 x 7 x 8.6	50.8 x 177.8 x 218.4	
O5 Control Head	2 x 7 x 2.5	50.8 x 180.3 x 63.5	
Mid Power Radio Transceiver and O5 Control Head-Dash Mount	2 x 7 x 9.6	50.8 x 180.3 x 243.8	
Mid Power Radio Transceiver and Remote Mount	2.0 x 7 x 9.6	50.8 x 180.3 x 243.8	
High Power Radio Transceiver	2.9 x 11.5 x 8.8	74 x 293 x 223	
High Power Radio Transceiver with Handle	3.4 x 11.5 x 8.8	87 x 293 x 223	
Mid Power Radio Transceiver and Control Head Weight	7.0 lbs	3.17 kg	
High Power Radio Transceiver Weight	With Trunnion Without Trunnion	14.2 lbs 12 lbs	6.4 kg 5.4 kg



**03 Hand Held Control Head features**

- 4 lines: 2 lines text (14 characters), 1 line icons, 1 line soft menu keys
- 3 x 6 keypad with up to 24 programmable soft keys
- Cellular style user interface and color display



**05 Control Head features**

- Tri-color LCD display
- 4 lines: 2 lines text (14 characters), 1 line icons, 1 line soft menu keys
- 3 x 6 keypad microphone accessory with 3 programmable soft keys
- 5 programmable soft key buttons and 5 scroll-through menus with
- Up to 24 programmable soft keys
- Dual control head configuration to fully control a single radio from 2 different wired locations

**RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS**

	700 MHz	800 MHz
Frequency Range/Bandsplits	764-776	851-870
Channel Spacing	25/12.5 kHz	25/20/12.5 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit
Audio Output Power at 3% distortion*	7.5W or 13W**	7.5W or 13W**
Frequency Stability* (-30°C to +60°C; +25°C Ref.)	±0.00015 %	±0.00015 %
Analog Sensitivity*	12 db SINAD	0.25 µV
Digital Sensitivity	1% BER 5% BER	0.3 µV 0.25 µV
Intermodulation	80 dB	80 dB
Spurious Rejection	90 dB	90 dB
Audio Distortion at rated*	3.00%	3.00%
Selectivity	25 kHz/30 kHz 12.5 kHz	80 dB 65 dB

**SIGNALING (ASTRO MODE)**

Signaling Rate	9.6 kbps
Digital ID Capacity	10,000,000 Conventional / 48,000 Trunking
Digital Network Access Codes	4,096 network site addresses
ASTRO® Digital User Group Addresses	4,096 network site addresses
Project 25 – CAI Digital User Group Addresses	65,000 Conventional / 4,094 Trunking
Error Correction Techniques	Golay, BCH, Reed-Solomon codes
Data Access Control	Slotted CSMA: Utilizes infrastructure-sourced data status bits embedded in both voice and data transmissions.

**POWER AND BATTERY DRAIN**

	764-870 MHz
Model Type	764-870 MHz
Minimum RF Power Output	10-35 Watt (764-870 MHz)
Operation	13.8V DC ±20% Negative Ground
Standby at 13.8V	764-870 MHz (10-35 Watt) 0.85A
Receive at Rate Audio at 13.8V	764-870 MHz (10-35 Watt) 3.2A
Transmit Current (A) at Rated Power (W)	764-870 MHz (10-35 Watt) 12A (35W), 8A (15W)

**GPS SPECIFICATIONS**

Channels	12
Tracking Sensitivity	-153 dBm
Accuracy**	<10 meters (95%)
Cold Start	<60 seconds (95%)
Hot Start	<10 seconds (95%)
Mode of Operation	Autonomous (Non-Assisted) GPS



APX™ 6500 SPECIFICATIONS

PORTABLE MILITARY STANDARDS 810 C, D, E, F & G										
	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.5	I-A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I-C3, II
Temperature Shock	503.1	—	503.2	I/A1C3	503.3	I/A1C3	503.4	I	503.5	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I-A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	—	507.5	II-Aggravated
Salt Fog	509.1	—	509.2	—	509.3	—	509.4	—	509.5	—
Blowing Dust	510.1	I	510.2	I, II	510.3	I, II	510.4	I, II	510.5	I, II
Vibration	514.1w	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I-cat.24
Shock	516.2	I, III	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, V, VI

ENCRYPTION	
Supported Encryption Algorithms	ADP, AES, DES, DES-XL, DES-OFB, DVP-XL
Encryption Algorithm Capacity	1
Encryption Keys per Radio	Module capable of storing 1024 keys. Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PID)
Encryption Frame Re-sync Interval	P25 CAI 300 mSec
Encryption Keying	Key Loader
Synchronization	XL – Counter Addressing OFB – Output Feedback
Vector Generator	National Institute of Standards and Technology (NIST) approved random number generator
Encryption Type	Digital
Key Storage	Tamper protected volatile or non-volatile memory
Key Erasure	Keyboard command and tamper detection
Standards	FIPS 140-2 FIPS 197

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-30°C / +60°C
Storage Temperature	-40°C / +85°C
Humidity	Per MIL-STD
ESD	IEC 801-2 KV
Water and Dust Intrusion	IP54, MIL-STD

FCC TYPE ACCEPTANCE ID		
Band	Output Power	Transmitter Number
764-870 MHz	10-35 Watt	AZ492FT5858

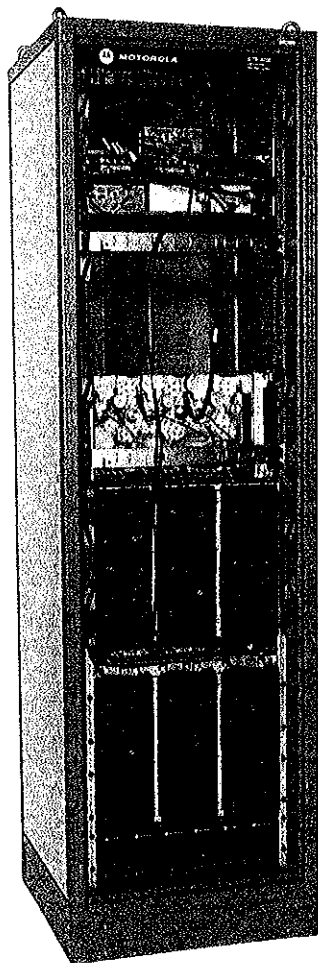
\* Measured in the analog mode per TIA/EIA 603 under nominal conditions  
 \*\* Accuracy specs are for long-term tracking (95th percentile values >5 satellites visible at a nominal -130 dBm signal strength)  
 + Specs includes performance for the non-GNSS/GNSS bands  
 ++ Output power in to 8 and 3.2 Ohm external speakers respectively  
 Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.



# G-Series Site Equipment

for ASTRO®25 Radio Networks

Motorola's ASTRO 25 networks are designed to meet the current and future customer requirements for Project 25 solutions. The G-series portfolio of products: RF stations, site controllers and comparators, are designed with flexibility and ease of service.



**GTR 8000 Expandable Site Subsystem**

## Flexible configurations

The G-series stations support the following configurations:

- Project 25 Phase 1 Integrated Voice & Data (IV&D) Trunking
  - Simulcast
  - Site Repeater
- High Performance Data
- X2-TDMA and Dynamic Dual Mode
  - 2-slot TDMA capability
  - Dynamic talkgroup allocation between P25 Phase 1 and X2-TDMA
- Digital conventional Project 25 Voice Common Air Interface (CAI)
- RF configurations
  - IP simulcast functionality reduces site complexity
  - Linear Simulcast Modulation provides industry-leading radio coverage with fewer sites in 700/800 MHz, UHF, & VHF

## Software defined architecture – easy to adapt equipment

- Base station, comparator, and site controller share common hardware
- Reconfigure hardware to meet different requirements – digital conventional P25 CAI, trunking, trunking simulcast
- Configurable Information Assurance capabilities – central logging, port security, back up and recovery
- Add new capabilities with a software download as they are developed – TDMA, and digital conventional P25 operation
- Installation and service costs are minimized with common hardware platforms

## Compact design for efficient use of site space

- Compact and integrated hardware is designed for efficient use of site space
- Expandable Site Subsystem offers up to six base radios and TX & RX peripherals in one vertical rack
- Standalone configurations occupy only three rack units of site space.
- Power supply supports AC & DC in the same unit
- Standard battery revert and battery charging capability in the G-series common Power Supply eliminates the need for an uninterrupted power supply (UPS) in many installations saving valuable site space

## DATA SHEET

### G-SERIES SITE EQUIPMENT for ASTRO®25 Radio Systems

#### Design Flexibility

As a software-defined radio, the G-series stations provide a lower total cost of ownership by offering the flexibility to add additional capabilities through software upgrades as they become available.

- Six basic modules (FRUs) create the entire G-series platform which can reduce the number of spare and replacement parts stocked
  - Transceiver, Power Amplifier, Power Supply, Fan Module, Site Controller/Comparator module, Expansion Hub
  - FRU modules are hot-swappable allowing servicing and replacement without system or site down-time

- Multisite (simulcast) systems require no field alignment<sup>1</sup> while Site Repeater systems feature greatly simplified alignment procedures with only one alignment process on the GCP 8000 Site Controller
  - Front-accessible LAN ports on G-series hardware makes it easy and efficient to service and upgrade using Customer Service Software (CSS) or Software Download Manager
- Subsystem configurations simplify initial installation and future site expansion or service

<sup>1</sup> Alignment is the tuning of the radio to the specified frequency. Traditional radios stray from the tuned frequency due to extended use or just over time and require regular alignment maintenance to ensure high signal quality and optimal performance

#### Configuration-Specific Features

##### GTR 8000 Expandable Site Subsystem

G-series product components are uniquely configured in a flexible self-contained rack.

- Supports ASTRO 25 Integrated Voice & Data (IV&D) systems and 25 kHz High Performance Data (HPD) systems
- Space-efficient modular design integrates up to six GTR 8000 Base Radios, redundant GCP 8000 Site Controllers, and a new site reference distribution interface in one rack or cabinet
- Radio Frequency Distribution System (RFDS) can be integrated into the prepackaged system for most frequency bands
- Conventional channels can be co-located in a trunking configuration

##### GTR 8000 Site Subsystem

A data-only system contained in a single, short, open rack.

- Supports ASTRO 25 25 kHz High Performance Data (HPD) systems only
- Provides HPD coverage equal to voice coverage
- Includes redundant GCP 8000 Site Controllers
- Integrates necessary Radio Frequency Distribution System (RFDS) equipment: duplexer, site preselector, and receiver multicoupler

##### GTR 8000 Base Radio

A single rack-mountable base radio.

- Supports ASTRO 25 Multisite (simulcast) IV&D, digital conventional P25 CAI voice, and 25 kHz HPD systems
- GTR 8000 base radios can be used as direct replacements for QUANTAR or STR 3000 Base Radios<sup>2</sup>
- GTR 8000 base radios may be installed in a wide variety of configurations and are not limited to the GTR 8000 Expandable Site Subsystem or GTR 8000 Site Subsystem configurations

##### GCP 8000 Site Controller

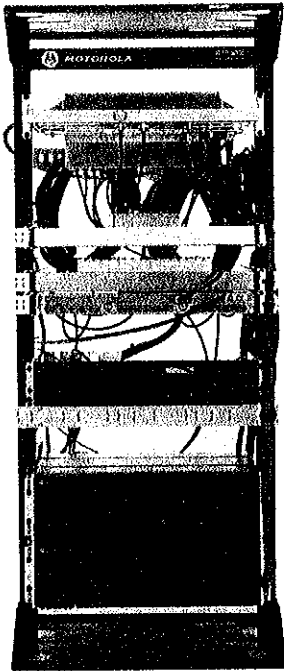
Controls voice and data messaging, manages site resources and supports frequency referencing.

- Redundant GCP 8000 Site Controllers ensures continuity of radio coverage
- Supports ASTRO 25 IV&D, Multisite (simulcast) operations and HPD applications

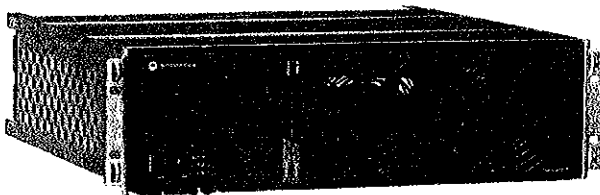
##### GCM 8000 Comparator

Ensures the broadcast of the best possible voice signal by combining the best parts of a signal that has been received by multiple sites in a Multisite (simulcast) system.

- Supports ASTRO 25 Multisite (simulcast) operation across all frequency bands
- Bit Error Rate voting methodology ensures highest-quality possible voice signal is broadcast
- GPS timing ensures seamless broadcast of data packets from multiple voice signals



GTR 8000 Site Subsystem



GTR 8000 Base Radio /  
GCP 8000 Site Controller /  
GCM 8000 Comparator

<sup>2</sup> GTR 8000 Base Radio compatibility depends on system software release.

**DATA SHEET**

G-SERIES SITE EQUIPMENT  
for ASTRO®25 Radio Systems

**GTR 8000 Expandable Site Subsystem**

<b>GENERAL PERFORMANCE</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Model Number	T7054A	T7054A	T7054A	T7054A
Number of Channels	2-5	1-6	1-6	1-6
Height*	90.4 in. (230 cm)	90.4 in. (230 cm)	90.4 in. (230 cm)	90.4 in. (230 cm)
Footprint (W x D)*	20.5 x 22.8 in. (52 x 58 cm)	20.5 x 22.8 in. (52 x 58 cm)	20.5 x 22.8 in. (52 x 58 cm)	20.5 x 22.8 in. (52 x 58 cm)
Weight (fully configured)*	475 lbs (215 kg)	475 lbs (215 kg)	UHF 380-435 MHz: 430lbs (195kg) UHF 450-512 MHz: 565lbs (260kg)	430 lbs (195 kg)
Temperature Range	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)
Power Requirements				
AC	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz
DC	43.2-60 VDC	43.2-60 VDC	43.2-60 VDC	43.2-60 VDC
Power Consumption (fully configured)	2500 W	C4FM: 3200 W LSM: 3500 W	C4FM: 3300 W LSM: 3600 W	C4FM: 3500 W LSM: 3000 W
Input/Output Impedance	50 ohms	50 ohms	50 ohms	50 ohms
Antenna Connectors				
Tx	7/16 Female	7/16 Female	7/16 Female	N Female
Rx	N Female	N Female	N Female	BNC Female
Channel Spacing	25 kHz	12.5 kHz	12.5 kHz	12.5 kHz
Modulation				
Tx	64QAM, 16QAM, QPSK	C4FM, LSM	C4FM, LSM	C4FM, LSM
Rx	64QAM, 16QAM, QPSK	C4FM	C4FM	C4FM
Frequency Stability	GPS synchronized	Repeater Site: 100 ppb/2 yr Simulcast (Multisite): External	Repeater Site: 100 ppb/2 yr Simulcast (Multisite): External	Repeater Site: 100 ppb/2 yr Simulcast (Multisite): External
<b>TRANSMITTER (CABINET OUTPUT**)</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Frequency Range	762-776, 851-870 MHz	762-776, 851-870 MHz	380-435, 435-524 MHz	136-174 MHz
Average Power output per channel	1-20 W	1-40 W	C4FM: 2-110W (380-450, 512-524 MHz) LSM: 2-100W (380-450, 512-524 MHz) C4FM: 1-33W (450-512 MHz) LSM: 1-30W (450-512 MHz)	C4FM: 2-100W LSM: 2-60 W
Modulation Fidelity	N/A	5%	5%	5%
EVM	10%	N/A	N/A	N/A
Spurious and Harmonic Emissions Attenuation	90 dB	90 dB	90 dB	90 dB
Emissions Designators	17K7D7D	8K70D1W, 8K10F1E, 8K70D7W, 8K10F7W, 8K10F1D	8K70D1W, 8K10F1E 8K10F7W, 8K10F1D 8K70D7W	8K70D1W, 8K10F1E 8K10F7W, 8K10F1D 8K70D7W
<b>RECEIVER (TOP OF CABINET)</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Frequency Range	792-825 MHz	792-825 MHz	380-435, 435-524 MHz	136-174 MHz
Sensitivity 1% Bit Error Rate Static (BER)				
64 QAM	-101 dBm	NA	NA	NA
16 QAM	-108 dBm	NA	NA	NA
QPSK	-115 dBm	NA	NA	NA
Sensitivity 5% Bit Error Rate Static (BER)				
C4FM	NA	-123 dBm	-115.5 dBm (380-450, 512-524MHz) -121.5 dBm (450-512 MHz)	-117 dBm
Intermodulation Rejection	75 dB***	80 dB	80 dB	80 dB
Adjacent Channel Rejection	50 dB***	60 dB	60 dB	60 dB
Spurious and Image Response Rejection	90 dB***	100 dB	85 dB (380-435 MHz) 110 dB (450-512 MHz)	90 dB
Intermediate Frequency				
1st	73.35 MHz	73.35 MHz	73.35 MHz	44.85 MHz
2nd	2.16 MHz	2.16 MHz	2.16 MHz	2.16 MHz

\* X8B2AH 75 Ft Open Rack Option

\*\* Includes Transmitter RF Distribution System for 700/800 MHz and UHF 450-512 MHz. Does not include Transmitter RF Distribution System for VHF and UHF 380-450, 512-524 MHz.

\*\*\* Reference signal is QPSK.

**DATA SHEET**

G-SERIES SITE EQUIPMENT  
for ASTRO®25 Radio Systems

**GTR 8000 Expandable Site Subsystem (continued)**

**TRANSMITTER RF DISTRIBUTION SYSTEM**

	<b>700/800 MHz</b>	<b>UHF: 450-512 MHz</b>
Frequency Range	762-776 or 851-870 MHz	450-512 MHz
Insertion Loss (150 kHz spacing)	3.1 dB typ	4.5 dB typ
Tx-Tx Isolation (150 kHz spacing)	32 dB	32 dB

**RECEIVER RF DISTRIBUTION SYSTEM**

	<b>700/800 MHz</b>		<b>UHF: 450-512 MHz</b>	
Frequency Range	792-825 MHz		450-512 MHz	
	Typical	Maximum	Typical	Maximum
Noise Figure	3.8 dB	5 dB	4.6 dB	5.5 dB
Gain	13 dB	-16 to 24 dB adjustable	10 dB	-16 to 24 dB adjustable
3rd Order Output Intercept	21 dBm		19 dBm	
Preselector Bandwidth	792-825 MHz		2 or 3.5 MHz	
RF Input Connector Type	N		N	
RF Output Connector Type	BNC		BNC	

**GCP 8000 Site Controller**

<b>GENERAL PERFORMANCE</b>	<b>HPD</b>	<b>IV&amp;D</b>
Model Number	T7038A	T7038A
Channel Capacity	5	Repeater Site: 28 Simulcast (Multicast): 30
Size (HxWxD)	5.25" x 19" x 18" (133 x 483 x 457 mm)	5.25" x 19" x 18" (133 x 483 x 457 mm)
Weight	40 lbs (18 kg)	40 lbs (18 kg)
Temperature Range	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)
Rack Option	19" standard rack mountable	19" standard rack mountable
Frequency Stability	GPS Synchronized	Simulcast (Multisite): External Repeater Site: 100 ppb/2 yr

<b>ELECTRICAL</b>	<b>HPD</b>	<b>IV&amp;D</b>
Power Requirements	AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC	AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC
Power Consumption	AC: 180 W DC: 100 W	AC: 150 W DC: 80 W

**GCM 8000 Comparator**

<b>GENERAL PERFORMANCE</b>	<b>IV&amp;D</b>	<b>GENERAL PERFORMANCE</b>	<b>IV&amp;D</b>
Model Number	T7321A	Time Stability	External Reference
Channel Capacity	1 or 2	Power Requirements	90-264 VAC, 47-63 Hz 43.2-60 VDC
Size	5.25" x 19" x 18" (133 x 483 x 457 mm)	Power Consumption	
Weight	40 lbs (18 kg)	AC, 1 module	150 W
Operating Temperature Range	-22 to 140 °F (-30 to 60°C)	AC, 2 modules	180 W
Rack Option	19" standard rack mountable	DC, 1 module	80 W
		DC, 2 modules	100 W

**DATA SHEET**

G-SERIES SITE EQUIPMENT  
for ASTRO®25 Radio Systems

**GTR 8000 Base Radio**

<b>GENERAL PERFORMANCE</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-435 MHz UHF: 435-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Model Number	T7039A	T7039A	T7039A	T7039A
Size (HxWxD)	5.25" x 19" x 18" (133x483x457mm)	5.25" x 19" x 18" (133x483x457mm)	5.25" x 19" x 18" (133x483x457mm)	5.25" x 19" x 18" (133x483x457mm)
Weight	46 lbs (21 kg)	46 lbs (21 kg)	46 lbs (21 kg)	46 lbs (21 kg)
Temperature Range	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)	-22 to 140 °F (-30 to 60°C)
Power Requirements				
AC	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz	90-264 VAC, 47-63 Hz
DC	43.2-60 VDC	43.2-60 VDC	43.2-60 VDC	43.2-60 VDC
Power Consumption	475 W	C4FM: 500W LSM: 550 W	C4FM: 510 W LSM: 560 W	C4FM: 550 W LSM: 460 W
Input/Output Impedance	50 ohms	50 ohms	50 ohms	50 ohms
Antenna Connectors				
Tx	N female	N female	N female	N female
Rx	BNC female	BNC female N female **	BNC female N female **	BNC female N female **
Channel Spacing	25 kHz	12.5 kHz	12.5 kHz	12.5 kHz
Modulation				
Tx	64QAM, 16QAM, QPSK	C4FM, LSM	C4FM, LSM	C4FM, LSM
Rx	64QAM, 16QAM, QPSK	C4FM	C4FM	C4FM
Frequency Stability	External Reference	External Reference	External Reference	External Reference
<b>TRANSMITTER</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-435 MHz UHF: 435-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Frequency Range	762-776, 851-870 MHz	762-776, 851-870 MHz	380-435, 435-524 MHz	136-174 MHz
Power output	2-50 W	2-100 W	C4FM: 2-110 W LSM: 2-100 W	C4FM: 2-100 W LSM: 2-60 W
Electronic Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth
Modulation Fidelity	N/A	5%	5%	5%
EVM	10%	N/A	N/A	N/A
Spurious and Harmonic Emissions Attenuation	90 dB	90 dB	90 dB	90 dB
Emissions Designators	17K7D7D	8K70D1W, 8K10F1E 8K70D7W, 8K10F7W, 8K10F1D	8K70D1W, 8K10F1E 8K10F7W, 8K10F1D 8K70D7W	8K70D1W, 8K10F1E 8K10F7W, 8K10F1D 8K70D7W
<b>RECEIVER</b>	<b>HPD 700/800 MHz</b>	<b>IV&amp;D 700/800 MHz</b>	<b>IV&amp;D UHF: 380-435 MHz UHF: 435-524 MHz</b>	<b>IV&amp;D VHF: 136-174 MHz</b>
Frequency Range	792-825 MHz	792-825 MHz	380-435, 435-524 MHz	136-174 MHz
Sensitivity 1% Bit Error Rate Static (BER)				
64 QAM	-98 dBm	NA	NA	NA
16 QAM	-104 dBm	NA	NA	NA
QPSK	-111 dBm	NA	NA	NA
Sensitivity 5% Bit Error Rate Static (BER)				
C4FM	NA	-118 dBm	-118 dBm	-118 dBm
Intermodulation Rejection	75 dB*	80 dB	80 dB	80 dB
Adjacent Channel Rejection	50 dB*	60 dB	60 dB	60 dB
Spurious and Image Response Rejection	85 dB*	85 dB 100 dB**	85 dB 100 dB**	90 dB 95 dB**
Intermediate Frequencies				
1st	73.35 MHz	73.35 MHz	73.35 MHz	44.85 MHz
2nd	2.16 MHz	2.16 MHz	2.16 MHz	2.16 MHz

\* Reference signal is QPSK.

\*\* Optional Preselector

**DATA SHEET**

G-SERIES SITE EQUIPMENT  
for ASTRO®25 Radio Systems

**GTR 8000 Site Subsystem**

**GENERAL PERFORMANCE INCLUDING RFDS**

Model Number	T7133A
Number of Channels	1
Height	27 RU, 50.4 in. (128 cm)
Footprint (W x D)	20.8 x 24.8 in. (52.8 x 62.9 cm)
Weight	225 lbs (102 kg)
Temperature Range	-22 to 140 °F (-30 to 60°C)
Power Requirements	AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC
Power Consumption	AC: 675W DC: 570W
Input/Output Impedance	50 ohms
Antenna Connectors	N Female
Channel Spacing	25 kHz
Modulation	Tx: 64QAM, 16QAM, QPSK Rx: 64QAM, 16QAM, QPSK
Frequency Stability	GPS synchronized

**TRANSMITTER INCLUDING RFDS**

Frequency Range	762-792, 851-870 MHz
Power output	1-27 W
Electronic Bandwidth	762-776, 851-870 MHz
Error Vector Magnitude	10%
Spurious and Harmonic Emissions Attenuation	90 dB
Emissions Designators	17K7D7W

**RECEIVER INCLUDING RFDS**

Frequency Range	792-825 MHz
Sensitivity 1% Bit Error Rate Static (BER) 64 QAM	-101 dBm
Sensitivity 1% Bit Error Rate Static (BER) 16 QAM	-108 dBm
Sensitivity 1% Bit Error Rate Static (BER) QPSK	-115 dBm
Intermodulation Rejection*	75 dB
Adjacent Channel Rejection*	50 dB
Spurious and Image Response Rejection*	90 dB
Preselector Bandwidth	792-825 MHz
Intermediate Frequencies	1st: 73.35 MHz 2nd: 2.16 MHz

\* Reference signal is QPSK.

**FCC TYPE ACCEPTANCE**

FCC Designation:	Frequency Range	Type	Power Output	Type Acceptance Number
	762-776 MHz	Transmitter	HPD: 2-50 W IV&D: 2-100 W	ABZ89FC5812
	851-870 MHz	Transmitter	HPD: 2-50 W IV&D: 2-100 W	ABZ89FC5810
	792-825 MHz	Receiver	N/A	ABZ89FR5811
	406-435MHz	Transmitter	2-110 W	ABZ89FC4821
	406-435MHz	Receiver	NA	ABZ89FR4822
	435-524 MHz	Transmitter	2-110 W	ABZ89FC4819
	435-524 MHz	Receiver	N/A	ABZ89FR4820
	136-174 MHz	Transmitter	2-100 W	ABZ89FC3790
	136-174 MHz	Receiver	N/A	ABZ89FR3791



Motorola, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. www.motorola.com/governmentandenterprise 1-800-367-2346

MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office.  
All other product or service names are the property of their registered owners. © Motorola, Inc. 2009 (0912)  
R3-11-2034H