



MOTOROLA SOLUTIONS

CITY OF DELRAY BEACH



P25 TWO WAY RADIO

SUBSCRIBER MIGRATION

- **APX6000 PUBLIC SAFETY PORTABLES**
- **APX6000 PORTABLE ACCESSORIES**
- **APX6500 PUBLIC SAFETY MOBILES**
- **MOTOROLA CERTIFIED SOUTH FLORIDA
IMPLEMENTATION FIELD SERVICES**



May 23, 2016

Don Marese
IT Project Manager
City of Delray Beach
150 NW 1st Avenue
Delray Beach FL 33444

RE: P25 Subscriber Migration Pricing

Dear Mr. Marese:

Motorola Solutions Inc. is pleased to extend to the City of City of Delray Beach our proposal for P25 Subscriber Migration.

APX6000 Public Safety Grade Portable Two way radios, in concert with APX6500 Public Safety Grade Mobiles represent the leading solution in North America and especially in South Florida. Over 6,000 of these units have been sold to Monroe, Martin, Broward, and Palm Beach Counties Agencies in the past three years.

We thank you for the opportunity to submit this proposal to the City of Delray Beach for a “best in class” solution. Our goal is to provide you with the best products and services available in the communications industry.

Any questions can be directed to John Anderson 561 245 1020 john.anderson@signalcommunications.com

Sincerely,

MOTOROLA Solutions, Inc.

A handwritten signature in blue ink that reads 'John Anderson'.

John Anderson
Authorized Motorola Representative
Government and Public Safety
8000 West Sunrise Blvd
Plantation FL 33222

P25 SUBSCRIBERS EXECUTIVE SUMMARY

UNDERSTANDING THE CHALLENGES...

From creating the first police car radio in 1930, to being the first to deliver Internet Protocol (IP) technology on a digital trunking radio system in 2001, Motorola is leading the way in high performance wireless communication systems. It is this history and experience that provides Motorola with the knowledge to understand the challenges faced by City of City of Delray Beach and to propose a solution to meet all of these challenges. As a trusted solution provider for many cities and counties, Motorola has helped our customers provide safe and welcoming communities. Our proven commitment to the public safety industry over the last 80 years combined with our vision to remain a leading developer of state of the art information and communication technologies helps ensure that the system Motorola has designed for the City of City of Delray Beach will meet its current needs and will be able to grow and adapt to meet future communication needs.

PROVIDING THE SOLUTION...

To meet the communications needs of the City of Delray Beach Motorola presents the following:

1) A proposal for P25 Subscribers Migration

These Motorola P25 subscribers meet all FCC and Homeland Security Public Safety Communications standards for Project 25 interoperability, and unlike our competitors our APX6000, APX6500, are capable of mixed mode (P25 digital / 3600 analog / Digital) Smartzone interoperability operation. This unique Motorola offering, permits a graceful system cut-over for P25 and Legacy non-P25 two way radios currently in operation in Palm Beach County, Broward County, Boca Raton, Boynton Beach, Ocean Ridge, Lantana, etc.

Motorola's P25 Two Way Radio competitors cannot provide this important system cutover capability, and what this means to the City of Delray Beach is that a new Harris P25 Portable or P25 Mobile Two Way radio, will only be able to talk to other new P25 radios, and not to any legacy two way radios that have not yet been replaced with a new P25 radio. Since it takes several days to complete the programming and installation of the new P25 Subscriber radios for a large customer such as the City of Delray Beach, an officer safety issue will certainly be present during the migration if you choose a vendor other than Motorola, as we are the only State of Florida Commodity Contract Vendor that can offer the City of Delray Beach the essential (P25 digital / 3600 analog / Digital interoperability operation capability.)

2) Competitive Pricing

All pricing offered to the City of Delray Beach is in accordance to the State of Florida Commodity Contract # 725-500-12-1 valid from 07/19/2011 through 06/29/2016; This contract was a competitive bid Contract, that serves the many Public Safety and Gov't users throughout the State of Florida.



The State of Florida, Department of Management Services, Division of State Purchasing administers statewide contracts and agreements for use by Florida State agencies, local governments, educational institutions, and other entities as defined in 60A-1.005, Florida Administrative Code. Statewide contracts and agreements enable eligible users to pool their buying power to lower total costs and reduce administrative burden while complying with Chapter 287 Florida Statutes governing the purchase of products and services.

725-500-12-1 [Land Mobile FM Or PM Communications Equipment](#) 07/19/2011 06/30/2016 Telecommunications State Term Contract [Justin Boynton](#)

CONTRACT BETWEEN FLORIDA DEPARTMENT OF MANAGEMENT SERVICES AND CONTRACTOR

Contract No.: 725-500-12-1

This Contract is by and between the State of Florida, Department of Management Services (Department), Division of State Purchasing (Division), an agency of the State of Florida with offices at 4050 Esplanade Way, Tallahassee, Florida 32399-0950, and Contractor. Whereas, the Contractor replied to the Division's Invitation to Bid ("ITB"), No.: ITB 09-725-500-A – Land Mobile FM or PM Communications Equipment, and the Department awarded to the Contractor pursuant to the terms and conditions of the ITB; Accordingly, and in consideration of the mutual promises contained in the Contract documents, the Department and Contractor do hereby enter into this Contract 725-500-12-1.

1.0 NAME OF PROJECT

Land Mobile FM or PM Communications Equipment

2.0 SUMMARY OF THE CONTRACTUAL SERVICES / SCOPE OF WORK

Land Mobile FM or PM Communications Equipment, this state term contract includes the purchase of public safety grade two-way voice radios (Category 1 or Category 2), and non-public safety two-way voice radios (Category 3), as well as dispatch consoles, RF Control Stations, Vehicular Repeaters, and radio equipment batteries and accessories.

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Land Mobile FM or PM Communications Equipment Contract No.: 725-500-12-1 (continued)**3.0 SUMMARY OF PENALTY FOR FAILURE OF CONTRACTOR TO MEET TERMS & CONDITIONS**

The primary penalties for failure to meet the Terms and Conditions include Termination for Convenience, Section 4.22, and Termination for Cause, Section 4.23 of ITB 09-725-500-A.

4.0 EFFECTIVE DATE

This Contract shall begin on July 1, 2011 or on the last date in which it is signed by all parties, whichever is later.

5.0 EXPIRATION DATE

This Contract shall expire June 30, 2014, unless renewed or cancelled earlier in accordance with its terms.

6.0 RENEWAL STATUS

State of Florida Commodities (SOF) Contract 725-500-12-1 is valid through 06/29/2016;

Invitation to Bid (ITB) for Land Mobile FM or PM Communications Equipment ITB No. 09-725-500-A

The State of Florida, Department of Management Services, Division of State Purchasing provides centralized statewide contracts for commodities and services for use by all state agencies, political subdivisions (such as municipalities, cities, towns, schools, universities, etc.), and others authorized by Florida Statute to use state contracts. State Purchasing has determined that in order to assist Eligible Users in meeting the Federal Communications Commission (FCC) mandate regarding the migration to narrowband or narrowband-equivalent technology, P25 for Gov't and Public Safety (the first requirements begin on January 1, 2011), a new contract for products meeting the specifications outlined within this Invitation to Bid is needed.

CONTRACT MANAGEMENT

The Department employee who is responsible for maintaining the Contract administration shall be:

Trey Collins, CPPB, FCCM

Purchasing Analyst

Department of Management Services

Division of State Purchasing

4050 Esplanade Way, Suite 360

Tallahassee, FL 32399-0950

(850) 488-9996 (Voice)

(850) 414-6122 (Fax)

trey.collins@dms.myflorida.com



May 23, 2016

Don Marese
IT Project Manager
City of Delray Beach
150 NW 1st Avenue
Delray Beach FL 33444

RE: P25 Subscriber Migration Pricing

Dear Mr. Marese:

This letter is intended to confirm that the pricing offered to the City of Delray Beach by Motorola Solutions for P25 Public Safety Grade Two Way Portables, Mobiles, and certified South Florida Implementation Services is the lowest price offered to any municipality or government agency within the State of Florida.

The pricing is established in the City of Boynton Beach Contract that Motorola received March 2016 for identical P25 Public Safety Grade Two Way Portables, Mobiles products and services.

Any questions can be directed to John Anderson 561 245 1020 john.anderson@signalcommunications.com

Sincerely,

MOTOROLA Solutions, Inc.

A handwritten signature in blue ink that reads 'John Anderson'.

John Anderson
Authorized Motorola Representative
Government and Public Safety
8000 West Sunrise Blvd
Plantation FL 33222

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WORKING TOGETHER...

Motorola will work with the to design and implement a system that meets the current needs of the City of Delray Beach as well as provide flexibility to grow with its communities for future needs. By working together, Motorola can provide integrated information and communication networks to improve effectiveness and to better serve the City of Delray Beach.

Motorola has assembled a team to work with the City of Delray Beach on this important project consisting of account managers, engineers, project managers, System technologists, and system maintenance support personnel. The project manager and the Motorola project manager will work together closely throughout the implementation of the project. Each member of the Motorola team stays abreast of the latest methods and techniques in their discipline through our comprehensive employee training programs offered through Motorola University.

By selecting Motorola, you gain the benefit of our investment in our people. Their qualifications and training have allowed us to implement and integrate some of the largest and most complex wireless networks in the world – on time and with solid, reliable results.

Our team will provide City of Delray Beach with:

■ **Coordinated Management.** Our project manager serves as single point of contact, works with the Bonner County to oversee the project, and answers any questions which may arise about the project. The project manager brings together the people and the resources for the project, and then manages them toward meeting every project milestone.

■ **Implementation Services.** In addition to a project manager, our team includes highly trained engineers, system technologists, customer support managers, and Motorola Certified Field Installation Technicians. Our engineers will work with you to finalize the system design. Our system technologists install and test the system. Our customer support managers work with you to design a maintenance program specifically for your communications needs. Our Motorola South Florida Certified Field Installation Technicians are very familiar with the proposed APX6000, and APX6500 P25 subscribers to the City of Delray Beach, and will professionally program, install, your new two way radio equipment on time, and on budget.

■ **Proven Implementation Processes.** Motorola will use its proven implementation processes that we have developed and fine-tuned over the years to ensure the timeliness and quality of our work. From concept to delivery, design, and installation, Motorola's direct sales representatives, system integration team, engineers, and service maintenance providers are ready to work together with you.

BENEFITING FROM MOTOROLA'S EXPERIENCE...

As we enter a new era of information and communication needs, Motorola is addressing critical demands by providing public safety customers with innovative solutions that include software, hardware, and services to improve operational performance. Our customers gain the benefit of our experience in many ways:

■ **Peace of Mind:** For over 80 years, Motorola has been a trusted source for mission critical public safety communications systems and is a leading provider of two way radio products, systems and services as well as large integrated communication and information technology systems for business and Government applications.

■ **User Confidence:** More Police, Fire and Gov't workers use Motorola Public Safety Grade Two Way Radios, than all of our competitor's products combined. It is estimated that Motorola has 78% of the Public Safety & Gov't Market, with the balance of 22% spread among our several competitors.

■ **Presence:** Motorola's sales force, combined with an extensive dealer and service center network, provides Motorola with over 7,000 points-of-presence worldwide, with solutions that cover a variety of commercial, government, and industrial communication needs. Motorola's P25 Subscriber Engineering is headquartered at our 8000 W. Sunrise Blvd, Plantation FL. South Florida Public Safety & Gov't customers currently operate more than 25,000 Motorola Public Safety Grade Two Way Radios; we are committed to South Florida, and will be here to serve the City of Delray Beach for decades to come.

■ **Innovative Solutions:** Motorola provides more than just enabling technology. Motorola works with customers from concept to installation while continuously upgrading solutions to bring rapid mobile intelligence to customer operations. Motorola is committed to helping customers navigate the rapidly changing landscape to make their organizations the best that they can be, now and in the future.

■ **Established Resources and Processes:** From our Customer Center for System Integration (CCSI) and System Support Center (SSC), to our processes for site readiness, testing, and problem escalation, Motorola has made investments in facilities people, and services to support project implementation and maintenance.

■ **Quality:** Dedication to quality is a way of life at Motorola. The company's ongoing process of continuous improvement reaches out for change, refinement, and even revolution in pursuit of quality excellence as recognized through the Malcolm Baldrige award in manufacturing for CGISS. Motorola was a recipient of the Baldrige Award in the award's inaugural year of 1988 and was again honored in November of 2002 by President George W. Bush and Commerce Secretary Don Evans. The Baldrige Award is the United States' premier award for performance excellence and quality achievement. Earning the Malcolm Baldrige National Quality Award acknowledges Motorola's CGISS' (Commercial Government and Industrial Solutions Sector) dedication to rigorous quality related processes and improvements over time. Motorola has been, and continues to be, the leading manufacturer and supplier of communications equipment both domestically and worldwide.

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COMMITTING TO YOUR SUCCESS...

As a trusted solution provider for numerous cities and counties in a public safety role for many years, Motorola is prepared to assist the with its current communication needs. Supported by a Motorola implementation team dedicated to the success of the City of Delray Beach P25 Subscriber Migration project and Motorola's responsive local services. The City of Delray Beach can be assured of the timely implementation of its system.

Motorola is committed to your success by:

- Delivering total, integrated communications solutions that empower your organization.
- Drawing on our proven 80 years of Public Safety and Gov't wireless communications experience, skills, and an extensive portfolio of technologies, services, and our proven South Florida resources, and capabilities to complete your project on time.
- Meeting your commitments so that you can be confident we will provide the right solution for your Organization. The citizens of the City of City of Delray Beach are depending on your Police, Fire Rescue, and Non Gov't users' ability to get the right information to the right people, in the right place, at the right time. Motorola is committed to working with the City of City of Delray Beach to make that happen.

In conclusion Motorola has served the City of Delray Beach for the past decade and looks forward to

**CONTINUING OUR RELATIONSHIP WITH THE CITY OF DELRAY BEACH
FOR GENERATIONS TO COME!**

P25 Subscriber Migration Pricing Summary

Delray Beach P25 Subscribers Pricing	Amount
SUB TOTAL DELRAY BEACH POLICE PORTABLE RADIOS & ACCESSORIES	\$933,464.00
SUB TOTAL DELRAY BEACH POLICE PORTABLE RADIO BATTERY CHARGERS	\$10,395.00
SUB TOTAL DELRAY BEACH POLICE MOBILE RADIOS	\$32,095.00
SUB TOTAL DELRAY BEACH KVL4000 ENCRYPTION KEYLOADER	\$3,296.65
SUB TOTAL DELRAY BEACH APX7500 CONSOLETTA CONTROL STATIONS	\$14,177.10
SUB TOTAL CERTIFIED SOUTH FLORIDA IMPLEMENTATION LABOR & SERVICES	\$32,000.00
SYSTEM GRAND TOTAL: EQUIPMENT, ACCESSORIES, AND LABOR SERVICES	\$1,025,427.75

Motorola P25 Subscriber Standard Warranty



I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

Motorola Solutions, Inc. ("Motorola") warrants the Motorola manufactured radio communications product, including original equipment crystal devices and channel elements ("Product"), against material defects in material and workmanship under normal use and service for a period of One (1) Year from the date of shipment.

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it with the same or equivalent Product (using new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided purchaser notifies Motorola according to the terms of this warranty. Repaired or replaced Product is warranted for the balance of the original applicable warranty period. All replaced parts of the Product shall become the property of Motorola.

II. WHAT THIS WARRANTY DOES NOT COVER:

- A. Defects or damage resulting from use of the Product in other than its normal and customary manner;
- B. Defects or damage from misuse, accident, water, or neglect;
- C. Defects or damage from improper testing, operation, maintenance, installation, or alteration;.
- D. Scratches or other cosmetic damage to Product surfaces that does not affect the operation;

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Model Numbers, Description, Unit Sell & Extended Pricing

ITEM	QTY	MODEL NUMBER	EQUIPMENT DESCRIPTION	LIST PRICE	DELRAY BEACH DISCOUNT %	DELRAY BEACH UNIT PRICE	DELRAY BEACH EXTENDED PRICE
1	200	H98UCF9PW5 N	APX6000 700/800 MHZ MODEL 2.5 PORTABLE TWO WAY RADIO;	\$ 2,588.00	30%	\$1,811.60	\$362,320.00
1a	200	H38	ADD: APX6000 SMARTZONE OPERATION;	\$ 1,200.00	30%	\$840.00	\$168,000.00
1b	200	QA00580	ADD: TDMA OPERATION;	\$ 450.00	30%	\$0.00	\$0.00
1c	200	G996	ADD: PROGRAMMING OVER P25 (OTAP) - (REQUIRED);	\$ 100.00	30%	\$70.00	\$14,000.00
1d	200	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE;	\$ 5.00	30%	\$3.50	\$700.00
1e	200	Q806	ADD: APX6000 ASTRO DIGITAL CAI OPERATION;	\$ 515.00	30%	\$360.50	\$72,100.00
1f	200	Q361	ADD: APX6000 P25 9600 BAUD TRUNKING;	\$ 300.00	30%	\$210.00	\$42,000.00
1g	200	Q15	ADD: APX6000 AES/DES ENCRYPTION OPERATION;;	\$ 799.00	30%	\$559.30	\$111,860.00
1h	200	H869BZ	ENh: APX6000 MULTIKEY OPERATION;	\$ 330.00	30%	\$231.00	\$46,200.00
1i	200	QA01837	ALT: APX6000 LIION IMPRES IP67 2900MAH (NNTN7038);	\$ 100.00	30%	\$70.00	\$14,000.00
1j	200	NAF5085A	APX 6000 700/800MHZ w / GPS DIPOLE ANTENNA;	\$ -		\$0.00	\$0.00
1k	200	QA00782	ADD: APX GPS ACTIVATION;	\$ -		\$0.00	\$0.00
1l	200	QA03399	ADD: ENHANCED DATA;	\$ 150.00	30%	\$105.00	\$21,000.00
1m	200	H301	DEL: DELETE STANDARD BELT CLIP/BASIC CARRY HOLDER	\$ (10.00)	30%	-\$7.00	-\$1,400.00
2	250	NNTN7038B	SPARE APX6000 LIION IMPRES IP67 2900MAH (NNTN7038);	\$ 142.00	30%	\$99.40	\$24,850.00
3	200	WPLN7080	APX6000 IMPRES SINGLE UNIT BATTERY CHARGER;	\$ 125.00	30%	\$87.50	\$17,500.00
4	200	PMMN4099B	IMPRES WINDPORTING RSM W /EMERGENCY BUTTON & 3.5MM AUDIO JACK;	\$ 132.00	36%	\$92.40	\$18,480.00
5	200	PMLN6802A	APX6000 MOLDED NYLON SWIVEL CARRYING CASE;	\$ 50.00	30%	\$35.00	\$7,000.00
6	25	HMN4104B	IMPRES RSM DSPLY W / JACK, W / EMERGENCY BUTTON CHANNEL SELECTOR;	\$ 413.00	30%	\$289.10	\$7,227.50
7	25	PMKN4113A	4 PIN NEXUS HIROSE FEMALE CORD FOR APX HMN4404B REMOTE SPEAKER MIC;	\$ 53.00	30%	\$37.10	\$927.50
8	30	NTN2571A	BLUETOOTH MISSION CRITICAL PUSH TO TALK POD	\$ 139.00	30%	\$97.30	\$2,919.00
9	30	NNTN8296	COVERT BLUETOOTH ACCESSORY KIT , EAR PIECE, 2WIRE SHORT CORD;	\$ 180.00	30%	\$126.00	\$3,780.00
SUB TOTAL				\$7,761.00		\$5,117.70	\$933,464.00
10	10	NNTN7073B	IMPRES MULTI-UNIT RAPID CHARGER W / 6 RADIO SLOTS W / 6 DIGITAL DISPLAYS;	\$ 1,485.00	30%	\$1,039.50	\$10,395.00
SUB TOTAL				\$ 1,485.00		\$ 1,039.50	\$10,395.00
11	7	M25URS9PW1 N	APX6500 700/800 MHZ MID MOBILE RADIO	\$ 2,194.00	30%	\$ 1,535.80	\$ 10,750.60
11a	7	G442	ADD: APX 05 CONTROL HEAD HARDWARE;	\$ 432.00	30%	\$ 302.40	\$ 2,116.80
11b	7	G66	ADD: STANDARD DASH MOUNT CONFIGURATION;	\$ 125.00	30%	\$ 87.50	\$ 612.50
11c	7	W22	ADD: PALM MICROPHONE;	\$ 72.00	30%	\$ 50.40	\$ 352.80
11d	7	GA00229	ADD: APX GPS ACTIVATION;	\$ 150.00	30%	\$ 105.00	\$ 735.00
11e	7	G851AG	ADD: APX6500 AES/DES ENCRYPTION OPERATION;	\$ 799.00	30%	\$ 559.30	\$ 3,915.10
11f	7	W969BG	ENH: APX6500 MULTI-KEY ENCRYPTION OPERATION;	\$ 330.00	30%	\$ 231.00	\$ 1,617.00
11g	7	Q806BE	ADD: APX6500 ASTRO DIGITAL CAI OPERATION;	\$ 515.00	30%	\$ 360.50	\$ 2,523.50
11h	7	G444	ADD: APX CONTROL HEAD SOFTWARE;	\$ -	30%	\$ -	\$ -
11i	7	G831	ADD: AUXILARY SPKR 15W WATER RESISTANT (3.2OHM) KIT# HSN4032;	\$ 60.00	30%	\$ 42.00	\$ 294.00
11j	7	G51	ADD: APX6500 SMARTZONE OPERATION;	\$ 1,200.00	30%	\$ 840.00	\$ 5,880.00
11k	7	G996	ADD: APX6500 PROGRAMING OVER P25 (OTAP);	\$ 100.00	30%	\$ 70.00	\$ 490.00
11l	7	G361AH	ADD: APX6500 P25 9600 BAUD TRUNKING OPERATION;	\$ 300.00	30%	\$ 210.00	\$ 1,470.00
11m	7	QA00580	ADD: TDMA OPERATION;	\$ 450.00	30%	\$ -	\$ -
11n	7	QA01648	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY;	\$ 5.00	30%	\$ 3.50	\$ 24.50
11o	7	G174AD	ADD: APX6500 ANTENNA 3DB LOW PROFILE 762-870 MHZ;	\$ 43.00	30%	\$ 30.10	\$ 210.70
11p	7	QA03399	ENH: APX6500 ENHANCED DATA;	\$ 150.00	30%	\$ 105.00	\$ 735.00
11q	7	GA00226	ADD: APX6500 GPS ANTENNA;	\$ 75.00	30%	\$ 52.50	\$ 367.50
SUB TOTAL				\$7,000.00		\$ 4,585.00	\$ 32,095.00
12	1	T7537B	KVL4000 PDA SNAP ON ENCRYPTION KEYLOADER;	\$ 1,250.00	30%	\$ 875.00	\$ 875.00
12a	1	CA00182AP	ADD: AES SOFTWARE ENCRYPTION KVL 4000 KEYLOADER OPTION;	\$ 750.00	30%	\$ 525.00	\$ 525.00
12b	1	X423AF	ADD: DES/DES-XL/DES-OFB ENCRYPTION KVL 4000 KEYLOADER OPTION;	\$ 1,550.00	30%	\$ 1,085.00	\$ 1,085.00
12c	1	U239AD	ADD: ASTRO 25 MODE ENCRYPTION KVL 4000 KEYLOADER OPTION;	\$ 250.00	30%	\$ 175.00	\$ 175.00
12d	1	X795AJ	ADD: ASN MODE ENCRYPTION KVL 4000 KEYLOADER OPTION;	\$ 600.00	30%	\$ 420.00	\$ 420.00
12e	1	CA01598AA	ADD: AC LINE CORD FOR KVL 4000 KEYLOADER OPTION;	\$ 11.00	30%	\$ 7.70	\$ 7.70
12f	1	C725AA	ADD: KVL4000 KEYLOADER APX PORTABLE OPTION;	\$ 75.00	30%	\$ 52.50	\$ 52.50
12g	1	CA01603AA	ADD: KVL4000 USB COMM / CHARGE CABLE W / CUP OPTION;	\$ 115.00	54%	\$ 52.50	\$ 52.50
12h	1	HKN6182A	KVL4000 KEYLOADING CABLE ADAPTER (GCAI) OPTION;	\$ 41.50	30%	\$ 29.05	\$ 29.05
12i	1	TKN8531C	KVL4000 KEYLOADER CABLE;	\$ 110.00	30%	\$ 77.00	\$ 77.00
SUB TOTAL				\$ 4,752.50		\$ 3,326.75	\$ 3,296.65



ITEM	QTY	MODEL NUMBER	EQUIPMENT DESCRIPTION	LIST PRICE	DELRAY BEACH DISCOUNT %	DELRAY BEACH UNIT PRICE	DELRAY BEACH EXTENDED PRICE
13	2	L30URS9PW1AN	APX7500 700 / 800 MHZ CONSOLETTTE CONTROL STATION	\$ 4,379.00	30%	\$ 3,065.30	\$ 6,130.60
13a	2	W382	ADD: CONTROL STATION DESKTOP PADDLE MIC;	\$ 169.00	30%	\$ 118.30	\$ 236.60
13b	2	L999	ADD: FULL FRONT PANEL W/ 05 CONTROL HEAD WITH KEYPAD;	\$ 789.00	30%	\$ 552.30	\$ 1,104.60
13c	2	Q806	ENH: ASTRO DIGITAL CAI OPERATION;	\$ 515.00	30%	\$ 360.50	\$ 721.00
13d	2	CA01598	ADD: AC LINE CORD US;	\$ -	30%	\$ -	\$ -
13e	2	G51	ENH: SMARTZONE OPERATION;	\$ 1,500.00	30%	\$ 1,050.00	\$ 2,100.00
13f	2	QA01648A	ADD: ADVANCED SYSTEM HARDWARE KEY;	\$ 5.00	30%	\$ 3.50	\$ 7.00
13g	2	G361	ADD: P25 PHASE I FDMA TRUNKING SOFTWARE OPERATION;	\$ 300.00	30%	\$ 210.00	\$ 420.00
13h	2	GA00580	ADD: TDMA OPERATION;	\$ -	30%	\$ -	\$ -
13i	2	G996	ADD: OVER THE AIR PROVISIONING;	\$ 100.00	30%	\$ 70.00	\$ 140.00
13j	2	G625AP	ADD: AES/DES-XL/DES-OFB ENCRYPTION	\$ 799.00	30%	\$ 559.30	\$ 1,118.60
13k	2	W969	ENH: APX7500 MULTI-KEY ENCRYPTION OPERATION;	\$ 330.00	30%	\$ 231.00	\$ 462.00
13l	2	GA00469AA	ENH: EXTENDED DISPATCH OPERATON;	\$ 500.00	30%	\$ 350.00	\$ 700.00
13m	2	HKN6233C	APX7500 CONSOLETTTE CONTROL STATION RACK MOUNT HARDWARE;	\$ 200.00	30%	\$ 140.00	\$ 280.00
13n	2	FHN7470AS	APX7500 CONSOLETTTE CONTROL STATION HEADSET INTERFACE;	\$ 197.50	30%	\$ 138.25	\$ 276.50
13o	2	CDN6281AR	APX7500 CONSOLETTTE CONTROL STATION HEADSET BASE AMPLIFIER;	\$ 204.00	30%	\$ 142.80	\$ 285.60
13p	2	GLN7278B	APX7500 CONSOLETTTE CONTROL STATION FOOT SWITCH HARDWARE;	\$ 139.00	30%	\$ 97.30	\$ 194.60
SUB TOTAL				\$ 10,126.50		\$ 7,088.55	\$ 14,177.10

Proposal Pricing Summary

Delray Beach P25 Subscribers Pricing	Amount
SUB TOTAL DELRAY BEACH POLICE PORTABLE RADIOS & ACCESSORIES	\$933,464.00
SUB TOTAL DELRAY BEACH POLICE PORTABLE RADIO BATTERY CHARGERS	\$10,395.00
SUB TOTAL DELRAY BEACH POLICE MOBILE RADIOS	\$32,095.00
SUB TOTAL DELRAY BEACH KVL4000 ENCRYPTION KEYLOADER	\$3,296.65
SUB TOTAL DELRAY BEACH APX7500 CONSOLETTTE CONTROL STATIONS	\$14,177.10
SUB TOTAL CERTIFIED SOUTH FLORIDA IMPLEMENTATION LABOR & SERVICES	\$32,000.00
SYSTEM GRAND TOTAL: EQUIPMENT, ACCESSORIES, AND LABOR SERVICES	\$1,025,427.75



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 a small, P25 Phase 2 capable radio. 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.

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

- Small P25 Phase 2 capable radio 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

- Universal Push-to-Talk
- T-Grip
- Dual Battery Latch
- Orange emergency button
- 16 position rotary switch
- 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



PRODUCT SPEC SHEET APX™ 6000



FEATURES AND BENEFITS:

Available in 700/800 MHz, VHF, UHF R1, and UHF R2 bands
Trunking standards supported:

- Clear or digital encrypted ASTRO®25 Trunked Operation
- Capable of SmartZone®, SmartZone Omnitalk, SmartNet®

Analog MDIC-1200 and Digital APCO P25 Conventional System Configurations

Narrow and wide bandwidth digital receiver
(8.25 kHz equivalent / 12.5 kHz / 30 kHz / 25 kHz)

Embedded digital signaling (ASTRO & ASTRO 25)

Available in 3 models

Integrated GPS capable

Man Down

Intelligent Lighting

Radio Profiles

Unified Call List (Models 2.5 and 3.5 only)

User programmable voice announcement

Meets Applicable MIL-STD-883C, D, E, F and G

IP67 standard

(submersible 1 meter, 30 minutes)**

Yellow and green colored housing options

Custom recess 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:

Mission Critical Wireless

Enhanced Encryption capability

Programming Over Project 25

Over the Air Relay

Text Messaging

Rugged submersible housing** (2 meters, 2 hours)

* Per the FCC Maximum Bandwidth rules, new products (APX6000 UHF R1, UHF R2) submitted for FCC certification after January 1, 2011 are restricted from being granted certification at 250K for United States - State & Local Markets only.

** Reduces meet industry standards (IP67) for immersion.

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

	700/800	VHF	UHF Range 1	UHF Range 2
Frequency Range/Bandsplit	700 MHz 800 MHz	763-776, 703-806 MHz 888-824, 851-870 MHz	136-174 MHz	580-470 MHz
Channel Spacing		25/12.5 kHz	30/15/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj ¹		1-3 Watts Max	1-6 Watts Max	1-5 Watts
Frequency Stability ² (-30°C to +60°C; 425°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %
Modulation Limiting ³		±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz
Emissions (Conducted and Radiated) ⁴		-75 dB	-75 dB	-75 dB
Audio Response ⁵		+1, -3 dB	+1, -3 dB	+1, -3 dB
RF Hum & Noise	700 MHz 800 MHz	-48 dB/-47 dB -46 dB/-45 dB	-47 dB -45 dB	-47 dB -45 dB
Audio Distortion ⁶	700 MHz 800 MHz	0.60 % 1 %	0.58 %	0.58 %

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	PW1W403	2150 mAh
Li-Ion IMPRES 2500 mAh IP67	3.07" x 2.34" x 1.65"	6.53 oz	NNTN7038	2500 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 FMP 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 2800 mAh FMP IP67	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7036	2800 mAh
NiMH IMPRES 2800 mAh FMP Rugged	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7035	2800 mAh
NiMH IMPRES 2100 mAh Rugged	5.12" x 2.34" x 1.57"	11.82 oz	NNTN7573	2100 mAh
Li-Ion IMPRES 2300 mAh FMP Rugged	3.39" x 2.34" x 1.65"	6.53 oz	NNTN8062	2300 mAh

*** Standard shipping battery



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PRODUCT SPEC SHEET APX™ 8000

RADIO MODELS			
			
	MODEL 1.5	MODEL 2.5	MODEL 3.5
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 Home and Data buttons	Backlight keypad 3 soft keys 4 direction navigation key 4x3 keypad Home and Data buttons
Channel Capacity*	96	1000	1000
FLASHport Memory	64 MB	64 MB	64 MB
700/800 MHz (763-870 MHz)	H08UC09PW5AN C060EF	H08UC09PW5AN C060EF	H08UC09PW5AN C060EF
VHF (136-174 MHz)	H08UC09PW5AN C060EG	H08UC09PW5AN C060EG	H08UC09PW5AN C060EG
UHF Range 1 (380-470 MHz)	H08UC09PW5AN C060EH	H08UC09PW5AN C060EH	H08UC09PW5AN C060EH
UHF Range 2 (450-520 MHz)	H08UC09PW5AN C060FC	H08UC09PW5AN C060FC	H08UC09PW5AN C060FC
Buttons & Switches	Large PTT button ■ Angled On/Off volume control ■ Orange emergency button ■ 16 position top-mounted rotary switch ■ 2-position concentric switch ■ Multi-color backlight ■ 3-position toggle switch ■ 3 programmable side buttons		
Transmitter Certification			
700/800 (764-869 MHz)	A2488F15863		
VHF (136-174 MHz)	A2488F13829		
UHF Range 1 (380-470 MHz)	A2488F14802		
UHF Range2 (450-520 MHz)	A2488F14003		
FCC Emissions Designators			
FCC Emissions Designators	11K0F3E, 16R0F3E, 8K10F1D, 8K10F1E, 8K10FTW, 20K0F1E**		
Power Supply			
Power Supply	One rechargeable 2150 mAh Li-Ion Battery Standard (PMNNA403), with alternate battery options available.		

**For the FCC PowerSaver rules, see product/VN000 (VHF), (UHF) | submitted for FCC certification after January 1, 2011 are indicated here being granted certification at 250W for United States - State & Local Markets only. *Accessories not included.

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS					
		700/800	VHF	UHF Range 1	UHF Range 2
Frequency Range/Bandsplits	700 MHz 800 MHz	763-776 MHz 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing		25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at Rated*		500mW	500mW	500mW	1000 mW
Frequency Stability† (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %
Analog Sensitivity‡	12 dB SINAD	0.250 µV	0.216 µV	0.234 µV	0.234 µV
Digital Sensitivity‡	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	0.307 µV 0.207 µV
Selectivity‡	25 kHz channel 12.5 kHz channel	75.7 dB 67.5 dB	79.3 dB 70 dB	78.3 dB 68.1 dB	78.3 dB 67.5 dB
Intermodulation		80 dB	80.5 dB	80.2 dB	80.2 dB
Spurious Rejection		76.6 dB	93.2 dB	80.3 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	-53.5 dB -47.4 dB
Audio Distortion‡		.9 %	1.20 %	0.91 %	0.91 %



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PRODUCT SPEC SHEET APX™ 8000

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	IIA1, IIA1	501.3	IIA1, IIA1	501.4	I/Hot, I/Basic Hot	501.5	IIA1, IIA2
Low Temperature	502.1	I	502.2	IVC3, IVC1	502.3	IVC3, IVC1	502.4	IVC3, IVC1	502.5	IVC3, IVC1
Temperature Shock	503.1	I	503.2	IIA1C3	503.3	IIA1C3	503.4	I	503.5	IVC
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	IIA1
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	1 Proc	507.5	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	1 Proc	509.5	1 Proc
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Blowing Sand	1 Proc	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	W/IV, Curve-W	514.3	IV10, IV3	514.4	IV10, IV3	514.5	IV24	514.6	IV24
Shock	516.2	I, II, 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

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	1.40	35.6
Width Top	2.98	75.7
Depth Top	1.58	40.1
Depth Bottom of Battery	1.24	31.5
Weight of the radios without battery	10.9 oz	309 g

ENCRYPTION

Supported Encryption Algorithms	AOP, AES, DES, DES-XL, DES-OFB, DVP-XL
Encryption Algorithm Capacity	81
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 CA1 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 Level 3 FIPS 157

GPS SPECIFICATIONS

Channels	12
Tracking Sensitivity	-159 dBm
Accuracy ¹	<10 meters (95%)
Cold Start	<60 seconds (95%)
Hot Start	<10 seconds (95%)
Mode of Operation	Autonomous (Non-Assisted) GPS

RUGGED OPTION SPECIFICATIONS

Leakage (Immersion)	MIL-STD-810 C,D,E,F and G Method 512.X Procedure I
Housing Availability	Black (Standard), Public Safety Yellow and High Impact Green

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature ²	-30°C / +60°C
Storage Temperature ²	-40°C / +85°C
Humidity	For MIL-STD
ESD	IEC 801-2 KV
Water and Dust Intrusion	IP67, MIL-STD
Immersion	MIL-STD 512.X1

- ¹ Measured in the scaling mode per ICA / ICA 602 under normal conditions
- ² When used with an FM approved intrinsically safe radio
- ³ Measured conductively in scaling mode per ICA / ICA 602 under normal conditions
- ⁴ Measured conductively in digital mode per ICA / ICA 610 ICA 612 ICA 614 under normal conditions
- ⁵ Accuracy spec is for long term tracking (60s) potential values < 4m relative stable at a nominal 1-100 dBm signal strength
- ⁶ Temperatures listed are for radio specifications. Battery storage is recommended at 25°C, <6°C to ensure best performance.

Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

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motorolasolutions.com

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PD-4-2013F





KVL 4000

Key Variable Loader



Sleek, rugged, and lightweight

Built to withstand everyday programming use in federal and public safety environments; meets or exceeds MIL-STD specs for sealing and drop.

- IP54 sealing
- 4 foot drop

New form factor and user interface

The KVL utilizes one of Motorola's newest PDAs, the MC55, which brings additional rugged functionality to encryption rekeying.

- Large 3.5 inch color display with day/night modes and multi-level backlighting.
- Touch screen interface makes navigating and accessing information fast and simple.

Powered by Microsoft's Windows® Mobile 6 operating system

Manage your data and inventory with Microsoft's Windows flexible operating platform.

- Organize and manage keys and radios with Office and third party applications.

- Remote desktop with ActiveSync helps manage and synchronize files and folders to and from the KVL.

Automatic key generation

- Automatic generation of random keys for any algorithm
- Can auto-generate a single key or a bulk set of keys

Highest level of security

- FIPS 140-2 level 3 provides the highest level of security for your data
- User timeout – Automatically logs out the user after a specified period of inactivity
- User and Administrator Authentication allow users and administrators to perform and restrict firmware upgrades, changes and key management.

Dead Battery Operation

Ability to operate the KVL including key management and key downloading while charging.

Key Management Facility (KMF) support

With store and forward capability the encryption keys are downloaded from the KMF, stored in the KVL, and delivered to the end units.

Compatibility*

Backwards and forward compatible with existing KVL 3000/3000+ keyloaders and keyloading cables.

Optional accessories

- 3600 mAh Li-Ion battery
- USB modem
- USB programming cable

Standard features

The KVL 4000 ships standard with the following:

- MC55 PDA
- Security adaptor
- Battery charger
- 2400 mAh Li-Ion battery
- User Manual

Secure and rugged in a sleek design

The KVL 4000 is Motorola's Next Generation Key Variable Loader (KVL) for secure enabled Motorola products. Equipped with the Motorola MC55 PDA, this new PDA style key loader is outfitted with state-of-the-art features and user interface for increased efficiency and programming flexibility. A large LCD color display paired with an easy to use alphanumeric keypad enables simple viewing and data entry. Designed to meet the requirements of two-way radio programmers, this powerful device offers the latest

industry standard Microsoft Mobile 6 Operating System with Excel, OneNote, Powerpoint and Word.

Built with legendary Motorola quality and security, this compact, rugged device is built to withstand everyday use in Federal and public safety environments. Only Motorola can provide its customers with the highest level of secure programming, FIPS 140-2 Level 3, ensuring your information is never compromised.



KVL 4000 Specifications

Physical Characteristics			
Dimensions			
Length	216 mm		
Width	94 mm		
Depth	30 mm		
Weight			
KVL with rechargeable 2400 mAh Lithium-Ion	473 g		
Battery/Charger			
2400 mAh Lithium-Ion 100/240VAC 50/60 Hz Charger	Up to 8 hours of typical keyloader operation		
3600 mAh Lithium-Ion 100/240VAC 50/60 Hz Charger	Up to 12 hours of typical keyloader operation		
User Interface			
Display	320 line, 240 character 3.5" QVGA resistive touch panel screen with LED backlight		
Keypad	QWERTY Keyboard		
RS232/DB-9 Connector	yes		
USB Type A Port	yes		
MX-style keyload port	yes		
Encryption Specifications			
Supported Systems			
	12 Kbps SECURENET		
	9.6 Kbps Secure ASTRO (VSELP Vocoder)		
	9.6 Kbps Secure ASTRO 2s (IMBE Vocoder)		
Supported Algorithms			
	DES, DES-OFB, DES-XL		
	DVI-XL		
	DVP-XL		
	AES		
	ADP		
Standards			
	FIPS 46-3		
	FIPS 81		
	FIPS 140-2 Levels 2 and 3		
	FIPS 197		
Algorithm	ASTRO 2s	Advanced Securenet (ASN)	KMP**
DES-XL	X	X	X
DES-OFB	X	X	X
DVP-XL	X	X	X
DVI-XL	X	X	X
ADP (HW)	X		
AES	X	X	X
Regulatory Compliance and Approvals			
Electromagnetic Compatibility			
	FCC Part 15: Class A Emission		
	EN55022 Class A Emission		
	EN55022 RF Exposure		
Safety	EN60950-1		
	UL/cUL 60950-1		
Environmental			
Disposal	RoHS Compliant		
Operating Temperature	-10 to +50 degree C		
Storage Temperature	-40 to +70 degree C		
Ingress Protection	IEC IPx4		
ESD Protection	±15kV air; ±6kV contact		
Humidity	95% max, non-condensing		

For up-to-date product information, contact your local Motorola representative or visit our website at www.motorola.com.
 **KMP is a Motorola trademark. For more information, contact your local Motorola representative or visit our website at www.motorola.com.



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 PG 17-2004A



APX™ PROJECT 25 RADIO ACCESSORIES

SAFETY WITHOUT COMPROMISE



APX PORTABLE RADIO	BATTERY DISPLAY INDICATOR	DESCRIPTION	PART NUMBER	IMPRES	REINFORCED OR NOT: CANCELING	VOLUME CONTROL	CHARGE/PROGRAMMABLE BUTTON	DISPLAY	CHANNEL CONTROL	PROGRAMMABLE BUTTON	BUILT-IN JACK	IF PAGING	BATTERY SAFETY BATTING	COS (ANTENNA TOP, mm)	POLICE	FIRE/EMS	MILITARY	TELECOM/AGENCIES	STREET AND PUBLIC WORKS	ON, GAS AND MINING	TRANSPORTATION
APX 7000 SERIES		IMPRES Windporting GSM with Volume Toggle Switch, Orange Button, 3.5mm NCH Threaded Jack (P25)	PMMN4326	•	Windporting							1	35 mm	P25	60 x 78 x 28	•		•	•	•	•

MOTOROLA IMPRES TWO-WAY BATTERIES The only batteries developed, tested and certified for optimal performance with your APX radio. APX batteries are Proven Tough, in lab test after lab test, to withstand shocks, knocks, drops and shakes and outperform the other brands.

LONG LIFE BATTERY	CARRY SOLUTIONS	DESCRIPTION	PART NUMBER	WEIGHT	SWITCHES/ DIMENSION FOOTPRINT (mm)	FIXED SWALET	D-RINGS
APX 6000 SERIES		Leather Carry Case with D-Rings and 2.75" Swivel Belt Loop for NNTN7038, PMMN4403 and NNTN8092 Batteries	PMLN5875	Hard Leather	2.75	Swivel	•

PORTABLE RADIO	CHARGERS	DESCRIPTION	PART NUMBER	IMPRES	CHEMISTRY	POWER SOURCE	DIMENSIONS (MILLIMETERS) (H x W x D)	NUMBER OF POCKETS	RECONDITIONING CAPABLE	CHARGING CURRENT (MAH)	NUMBER OF DISPLAYS
DESKTOP, SINGLE AND MULTI-UNIT CHARGERS											
APX 7000 SERIES APX 7000XE SERIES APX 6000 SERIES APX 6000XE SERIES SRX 2200 SERIES		IMPRES Single-Unit Rapid Rate Charger, 120V (US Plug)	WPLN7080	•	Li-Ion, NiMH	120VAC	80 x 97 x 163	1	•	Rapid Rate	
APX 7000 SERIES APX 7000XE SERIES APX 6000 SERIES APX 6000XE SERIES SRX 2200 SERIES		IMPRES Multi-Unit Rapid Rate Charger with 6 Displays, 120V (US plug)	NNTN7073	•	Li-Ion, NiMH	120VAC	153 x 445 x 292	6	•	Rapid Rate	6
		IMPRES Multi-Unit Rapid Rate Charger with 1 Display, 120V (US plug)	NNTN7065	•	Li-Ion, NiMH	120VAC	153 x 445 x 292	6	•	Rapid Rate	1

HMN4104B is a rugged microphone with a display, channel knob, volume control, two programmable buttons and an orange emergency button. Its 8-character display mimics the top display to show zone and channel information at a glance. It is designed with a large speaker that delivers audio that is clearer, more intelligible and up 50% louder than XTS-series RSMs. Meets rugged specifications for submersibility and includes a rugged, submersible audio jack from Motorola.



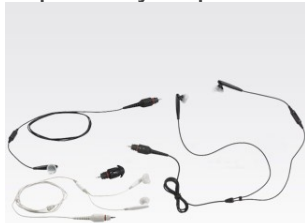
HMN4104B

NTN2571A Bluetooth® Mission Critical Wireless Push-to-Talk Pod is a mission-critical wireless push-to-talk pod offers a fast and flexible way to seamlessly and wirelessly connect with any earpiece connected to your radio. Whether a radio is under your coat or out of your reach, you can access it using your wireless PTT pod — just tuck it in a pocket or clip it on a jacket.



NTN2571A

NNTN8296A Bluetooth® Mission Critical Wireless Covert Kit for surveillance operations, the unique Mission Critical Wireless Bluetooth Covert kit provides the accessory options an undercover officer needs when heading out for duty. This covert kit includes 2 sets of two-wire earbud headphones (1 black and 1 white), a single-wire black earbud headphone and an industry unique 3.5mm adapter that allows the officer to plug in any consumer off-the-shelf headphones. A Mission Critical wireless push-to-talk pod (NTN2571) must be ordered separately to power the earpieces.



NNTN8296A



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

APX™ 6500 SPECIFICATIONS

RECEIVER – TYPICAL PERFORMANCE SPECIFICATIONS									
		700 MHz	800 MHz	VHF		UHF Range 1		UHF Range 2	
Frequency Range/Bandwidth		704-770 MHz	851-870 MHz	136-174 MHz		380-470 MHz		460-520 MHz	
Channel Spacing		25/12.5 kHz	25/20/12.5 kHz	30/25/12.5 kHz		25/12.5 kHz		25/12.5 kHz	
Minimum Frequency Separation		Full Bandwidth	Full Bandwidth	Full Bandwidth		Full Bandwidth		Full Bandwidth	
Audio Output Power at 2% distortion		7.5 W or 10 W ++	7.5 W or 10 W ++	7.5 W or 10 W ++		7.5 W or 10 W ++		7.5 W or 10 W ++	
Frequency Stability (-30°C to +60°C, +25°C Ref.)		±0.00015 %	±0.00015 %	±0.0002 %		±0.0002 %		±0.0002 %	
Analog Sensitivity	12 dB SINAD	0.25 µV	0.25 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV
Digital Sensitivity	1% BER	0.3 µV	0.3 µV	0.25 µV	0.4 µV	0.25 µV	0.4 µV	0.25 µV	0.4 µV
	5% BER	0.25 µV	0.25 µV	0.2 µV	0.3 µV	0.2 µV	0.3 µV	0.2 µV	0.3 µV
Intermodulation		80 dB	80 dB	80 dB	85 dB	80 dB	85 dB	80 dB	85 dB
Spurious Rejection		90 dB	90 dB	90 dB		90 dB		90 dB	
Audio Distortion at rated		3.00 %	3.00 %	3.00 %		3.00 %		3.00 %	
Selectivity	25 kHz	80 dB	80 dB	—		80 dB		80 dB	
	12.5 kHz	65 dB	65 dB	70 dB		70 dB		70 dB	
	30 kHz	—	—	90 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.

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

POWER AND BATTERY DRAIN	
Model Type	136-174 MHz, 380-470 MHz, 460-520 MHz, 704-870 MHz
Minimum RF Power Output	10-35 Watts (704-870 MHz), 10-50 Watts or 25-100 Watts (136-174 MHz), 10-40W or 25-100 Watts (380-470 MHz), 10-45Watts (460-520 MHz)
Operation	12.8V DC ±20% Negative Ground
Standby at 12.8V	0.85A (704-870 MHz), 0.85A (136-174 MHz), 0.85A (380-470 MHz), 0.85A (460-520 MHz)
Receive Current at Rated Audio at 12.8V	3.2A (704-870 MHz), 3.2A (136-174 MHz), 3.2A (380-470 MHz), 3.2A (460-520 MHz)
Transmit Current (A) at Rated Power	136-174 MHz (10-50 Watts) 13A (50W) 8A (TSW) 704-870 MHz (10-35 Watts) 12A (50W) 8A (TSW) 380-470 MHz (10-40 Watts) 11A (40W) 8A (TSW) 136-174 MHz (25-110 Watts) 20A (100W) 380-470 MHz (10-40 Watts) 11A (40W) 8A (TSW) 380-470 MHz (25-110 Watts) 24A (100W)



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	IA/1, I/A1	501.3	IA/1, I/A1	501.4	II/Hot, II/Hot	501.5	I-A1, II
Low Temperature	502.1	I	502.2	IVC3, IVC1	502.3	IVC3, IVC1	502.4	IVC3, IVC1	502.5	I-C3, II
Temperature Shock	503.1	Only 1 Proc	503.2	IA/IC3	503.3	IA/IC3	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	Only 1 Proc	509.2	Only 1 Proc	509.3	Only 1 Proc	509.4	Only 1 Proc	509.5	Only 1 Proc
Blowing Dust	510.1	I	510.2	I, II	510.3	I, II	510.4	I, II	510.5	I, II
Vibration	514.1w	W/MT, Curve-W	514.3	V10, I/3	514.4	V10, I/3	514.5	V24	514.6	I-Cat.24
Shock	516.2	I, III	516.3	I-V	516.4	I-V	516.5	I-V	516.6	I, V VI

Supported Encryption Algorithms	ADF, AES, DES, DES-XL, DES-OFB, DVP-XL
Encryption Algorithm Capacity	8
Encryption Keys per Radio	Module capable of storing 1024 keys Programmable for 64 Common Key Reference (CKR) or 16 Physical Identifier (PII)
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 Level 3 FIPS 197

Operating Temperature	-30°C / +60°C
Storage Temperature	-40°C / +85°C
Humidity	Per MIL-STD
ESD	IEC 601-2 KV
Water and Dust Intrusion	IP54 MIL-STD

Band	Output Power	Transmitter Number
754-870 MHz	10-35 Watts	A2402F15058
136-174 MHz	25-100 Watts	A2402F13821
136-174 MHz	10-50 Watts	A2402F13824
380-470 MHz	10-40 Watts	A2402F14284
380-470 MHz	25-100 Watts	A2402F14807
450-520 MHz	10-45 Watts	A2402F14806

Specifications subject to change without notice. All specifications shown are typical.
Radio needs applicable regulatory requirements.



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Discussion



APX7500 CONSOLETTA CONTROL STATIONS FOR EMERGENCY COMMAND VEHICLE

PRODUCT SPEC SHEET
APX™ 7500 MULTIBAND CONSOLETTA



WIRELESS DISPATCH EVERYWHERE

APX™ 7500 MULTIBAND CONSOLETTA

Racing to an emergency or repairing a power outage, every moment matters as you mount a response. The right control station can make all the difference in making sure communications are clear, continuous and coordinated – across multiple users, agencies and miles.

The APX™ 7500 Consolelette is the ideal complement to your dispatch console. It's the low cost, mid-power RF control station for the ASTRO® 25 system when you want a wireless dispatch solution. Plus, you can use it as an emergency backup station when infrastructure is off-line or for wireless access to different system types for increased interoperability between agencies.

CONNECT WITH CONFIDENCE

Designed for the APX 7500 mid-power series and O5 control head, the APX 7500 Consolelette combines forward-thinking technology with time-tested functionality. Project 25 Phase 2 technology delivers twice the voice capacity so you can add more users without adding more frequencies or infrastructure. And its multiband operation assures seamless interoperability – so you can talk with confidence from a squad car or desk station, a job site across town or an incident in the next county.

MIGRATE AT YOUR OWN PACE

The APX 7500 Consolelette is backwards and forwards compatible, developed to meet current P25 standards and future-ready to support new technology and data applications. Now you can achieve your interoperability objectives—whether upgrading an existing system or designing a new one—based on your dollars and deadlines.

BUILT FOR THE TOUGHEST TASKS

Innovative design and skillful engineering make the APX 7500 Consolelette a tireless performer. It can be easily serviced or programmed without removing the lid and the robust metal housing assures extra durability. An integrated front panel numeric keypad on the APX 7500 Consolelette gives you fast access to radio controls. And it meets stringent FCC and UL certifications for exceptional safety.

ROBUST AND MISSION-READY

When a power loss occurs, count on the automatic battery revert to connect your people 24/7. All you need is a DC source, such as a marine battery, to switch over automatically and keep communications going strong.

Rich in features, the APX 7500 Consolelette gives you easy access to contact information with one unified call list and the largest number of interface connections to a wide variety of consoles and desk sets. What's more, an ACIM wireless interface provides back-up dispatch if your console's link to the ASTRO 25 trunked system is ever lost.

APX7500 CONSOLETTA CONTROL STATIONS FOR EMERGENCY COMMAND VEHICLE (CON'T)

PRODUCT SPEC SHEET APX™ 7500 MULTIBAND CONSOLETTA

APX 7500 MULTIBAND CONSOLETTA

STANDARD FEATURES

Available in 700/800 MHz, VHF, UHF R1, and UHF R2 bands
Up to 1250 Channels

Optional multiband operation

Trunking Standards supported:

- Clear or digitally 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 equivalent/12.5 kHz/25 kHz)

Embedded digital signaling (ASTRO and ASTRO 25)

Integrated Encryption Hardware

Seamless wideband scan

Intelligent lighting

Radio profiles

Unified Call List

Tone remote control

ACM/CCOW interface including:

- ID decode
- Call alert encode

Interfaces supported:

- Recorder
- Wireline
- Vehicle Interface Port
- Crosspatch
- Headsets (2)*

110/220VAC operation with battery rowlet capability

VU Meter and Clock

Expansion Slot Standard

2 configurations available:

- Full featured front panel
- Limited front panel

Customer Programming Software:

- Utilizes Windows 7, XP and Vista
- Supports USB Communications
- Built in FLASHport™ support

OPTIONAL FEATURES:

Enhanced Encryption Software Options

Programming over Project 25 (POF25)

Text Messaging

Over the Air Re-Key (OTAR)

Extended Dispatch Operation including:

- Emergency Alarm ACK Encode
- Radio Inhibit/Uninhibit Encode
- Radio Monitor Encode
- Radio Check Encode
- Status Query Encode
- Status Query Response Decode
- Status Update Decode
- Message Update Decode



05 CONTROL HEAD FEATURES

Tri-color LCD display

- 4 lines: 2 lines text (34 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



AUXILIARY DISPLAY FEATURES

LCD display

3 soft menu buttons to activate or control the following Consolelette features:

- Clock
- Volume Units Meter (VU)
- Crosspatch Linking
- Auxiliary Controls/VIP Activation
- Over-the-air Audible TX Alert Tones

*Available on full featured models only



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APX7500 CONSOLETTA CONTROL STATIONS FOR EMERGENCY COMMAND VEHICLE (CON'T)

PRODUCT SPEC SHEET APX™ 7500 MULTIBAND CONSOLETTA

SIGNALING (ASTRO MODE)		APX 7500 CONSOLETTA	
Signaling Rate	9.6 kbps	Dimensions	Limited Front Panel Configuration 16" x 16" x 4.2" (405 x 407 x 107mm) Full Featured Front Panel Configuration 16" x 16.75" x 4.2" (405 x 425 x 107mm)
Digital ID Capacity	10,000,000 Conventional / 40,000 Trunking	Weight	Limited Front Panel Configuration 16.5 lbs (8.4 kg) Full Featured Front Panel Configuration 18.5 lbs (8.3 kg)
Digital Network Access Codes	4,095 network site addresses		
ASTRO Digital User Group Addresses	4,095 network site addresses		
Project 25 – CAI Digital User Group Addresses	65,000 Conventional / 4,094 Trunking		
Error Correction Techniques	Conv. BCH, Reed-Solomon codes		
Data Access Control	Shielded CDMA, Utilizes infrastructure-sourced data status bits embedded in both voice and data transmissions		

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS					
	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2
Frequency Range/Bandwidths	704-775 MHz 704-806 MHz	806-824 MHz 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation	Full Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth
Rated RF Output Power Adj ¹	10-30 Watts	10-35 Watts	10-50 Watts	10-40 Watts	10-40 Watts (400-485 MHz) 10-40 Watts (485-512 MHz) 10-25 Watts (512-520 MHz)
Frequency Stability ² (-30°C to +60°C, +25°C Ref.)	±0.00075 %	±0.00075 %	±0.00072 %	±0.00072 %	±0.00072 %
Modulation Limiting ³	±5 kHz / ±2.5 kHz	±5 kHz / ±4 kHz (NPSWAQ) / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz
Modulation Fidelity (CFM) 12.5 kHz Digital Channel	±2.8 kHz	±2.8 kHz	±2.8 kHz	±2.8 kHz	±2.8 kHz
Emissions ⁴	Conducted + -70/-85 dBc Radiated + -30/-40 dBm	Conducted + -70 dBc Radiated + -20 dBm	Conducted + -85 dBc Radiated + -20 dBm	Conducted + -85 dBc Radiated + -20 dBm	Conducted + -85 dBc Radiated + -20 dBm
Audio Response ⁵	+1, -3 dB (1A)	+1, -3 dB (1A)	+1, -3 dB (1A)	+1, -3 dB (1A)	+1, -3 dB (1A)
FM Hum & Noise	25 & 20 kHz 12.5 kHz	-40 dB -34 dB	-40 dB -34 dB	-40 dB -40 dB	-40 dB -40 dB
Audio Distortion ⁶	2 %	2 %	2 %	2 %	2 %

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS					
	700 MHz	800 MHz	VHF	UHF Range 1	UHF Range 2
Frequency Range/Bandwidths	704-775 MHz	806-824 MHz 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	30/25/12.5 kHz	25/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation	Full Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth	Full Bandwidth
Audio Output Power at 1% distortion ¹	2.5W++	2.5W++	2.5W++	2.5W++	2.5W++
Frequency Stability ² (-30°C to +60°C, +25°C Ref.)	±0.00075 %	±0.00075 %	±0.00072 %	±0.00072 %	±0.00072 %
Analog Sensitivity ³	12 dB SINAD	0.25 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV	Pre-Amp 0.2 µV Standard 0.3 µV
Digital Sensitivity ³	7% BER 5% BER	0.3 µV 0.25 µV	0.25 µV 0.2 µV	0.25 µV 0.2 µV	0.25 µV 0.2 µV
Intermodulation	80 dB	80 dB	80 dB	80 dB	80 dB
Spurious Rejection	90 dB	90 dB	90 dB	90 dB	90 dB
Audio Distortion at rated ⁴	3.00 %	3.00 %	3.00 %	3.00 %	3.00 %
Selectivity ⁵	25 kHz 12.5 kHz 30 kHz	80 dB 85 dB —	— 70 dB 90 dB	82 dB 70 dB —	82 dB 70 dB —

APX7500 CONSOLETTA CONTROL STATIONS FOR EMERGENCY COMMAND VEHICLE (CON'T)

PRODUCT SPEC SHEET APX™ 7500 MULTIBAND CONSOLETTA

POWER AND BATTERY DRAIN					
Model Type	136-174 MHz, 380-470 MHz, 450-520 MHz, 754-870 MHz				
Minimum RF Power Output	10-35 Watts (754-870 MHz), 10-50 Watts (136-174 MHz), 10-40 Watts (380-470 MHz), 10-45 Watts (450-520 MHz), 10-35 Watts (512-520 MHz)				
AC Operation	110 to 220VAC 50-60Hz				
AC Surge Spec	EN6100 4-5 Level 5				
DC Operation	13.8VDC +/-20% Negative Ground				
Standby at 13.8V	0.85A (754-870 MHz), 0.85A (136-174 MHz), 0.85A (380-470 MHz), 0.85A (450-520 MHz)				
Receive Current at Rated Audio at 13.8V	1.5A (754-870 MHz), 1.5A (136-174 MHz), 1.5A (380-470 MHz), 1.5A (450-520 MHz)				
Transmit Current (A) at Rated Power	136-174 MHz (10-50 Watts)	3.5A (50W)	6A (15W)	754-870 MHz (10-35 Watts)	3.5A (50W)
	380-470 MHz (10-40 Watts)	3.1A (40W)	6A (15W)		6A (15W)
	450-520 MHz (10-45 Watts)	3.1A (45W)	6A (15W)		6A (15W)

ENCRYPTION		ENVIRONMENTAL SPECIFICATIONS	
Supported Encryption Algorithms	ACP, A15, DES, DES-X, DES-CFB, DWP-XL	Operating Temperature	-30°C / +60°C
Encryption Algorithm Capacity	16	Storage Temperature	-40°C / +85°C
Encryption Keys per Radio	Module capable of storing 1024 keys. Programmable for 128 Common Key Fluorescence (CKF) or 16 Physical Identifier (PII)	Humidity	95% relative humidity
Encryption Frame Re-sync Interval	FDX: 6A1/300 mSec	ESD	IEC 61000-4-2
Encryption Keying	Key Loader	Duty Cycle	EIA/TIA Intermittent Duty Cycle
Synchronization	XG – Counter Addressing CFB – Output Feedback		
Vector Generator	National Institute of Standards and Technology (NIST) approved random number generator		
Encryption Type	Digital		
Key Storage	Temporarily protected volatile or non-volatile memory		
Key Sources	Keyboard command and tamper detection		
Standards	FIPS 140-2 Level 3 FIPS 180		

FCC TYPE ACCEPTANCE ID	
FCC ID	BAND AND POWER LEVEL
A2402F14805	10-50 Watts (136-174 MHz) and 10-40 Watts (380-470 MHz)
A2402F15658	10-35 Watts (754-870 MHz)
A2402F17037	10-50 Watts (136-174 MHz) and 10-35 Watts (754-870 MHz)
A2402F17035	10-35 Watts (754-870 MHz)
A2402F13624	10-50 Watts (136-174 MHz)
A2402F14804	10-40 Watts (380-470 MHz)
A2402F14806	10-45 Watts (450-520 MHz)

For more information about how to interoperate without boundaries, visit motorolasolutions.com/apx

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** Measured in the analog mode per TIA/EIA-603 under thermal conditions

+ Specs include performance for the non-GNSS/GNSS bands
++ Output power into 20 Ohm internal speaker

Specifications subject to change without notice. All specifications shown are typical.

Radio meets applicable regulatory requirements.

RS-1-30270

APX6000 PORTABLE RADIO



APX6500 MOBILE RADIO MOUNTING CONFIGURATION



APX6500 Dash Mount Radio with integrated O5 Control Head