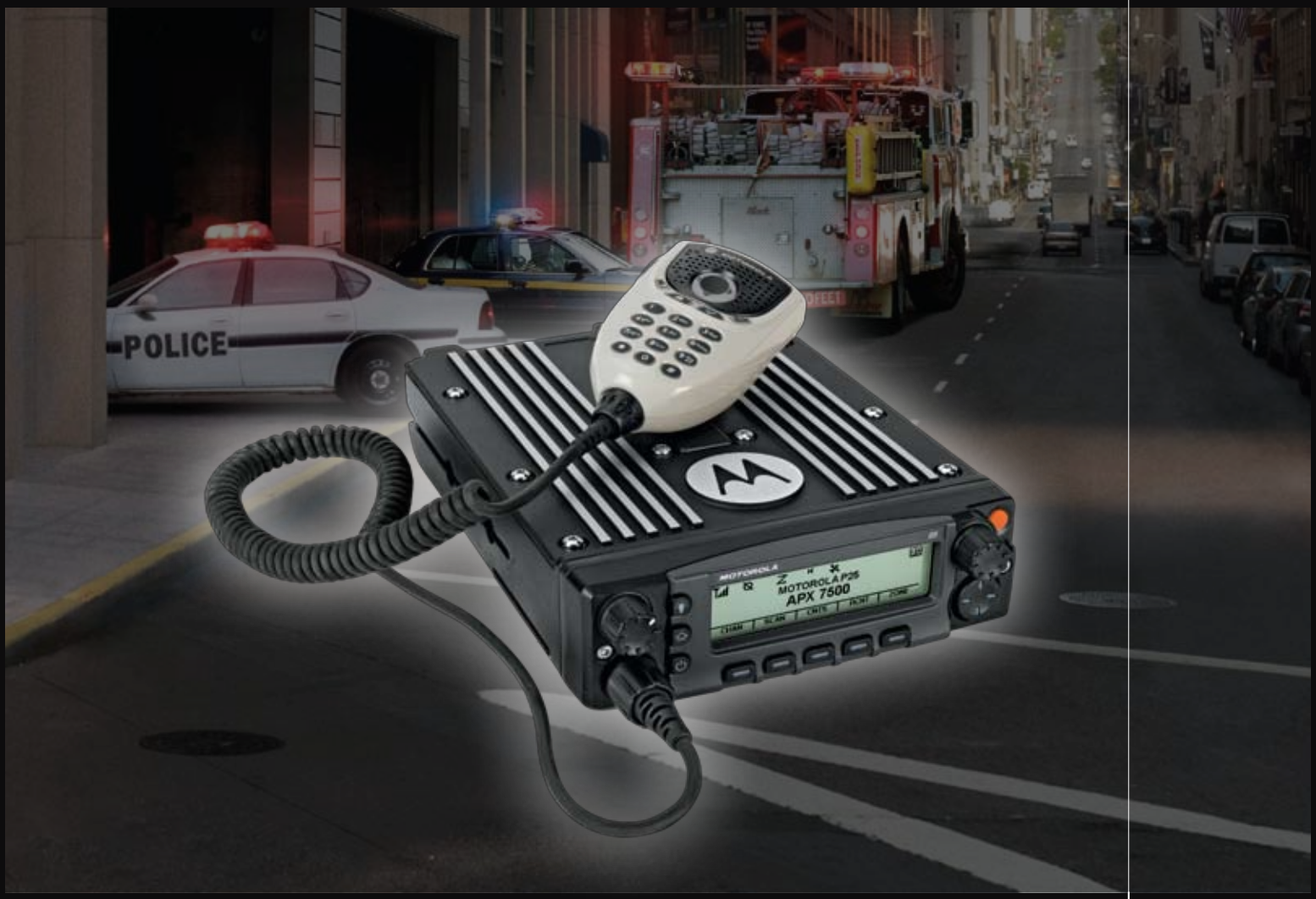
2-In-1 Radio.
For One-Of-A-Kind Interoperability

Motorola APX™ 7500 Multi-Band Mobile Radios



APX AWARDS WINNER

Designed for today. Engineered for the future.

APX Mobile: Technology driven by first-responder challenges

When every second counts, first responders must be able to communicate with one another – no matter what agencies are involved in mission critical operations. Despite years of heightened attention to security and preparedness, many communities are looking for the right technology to achieve interoperability and be capable of mounting a swift and effective joint response.

With the APX 7500, organizations can purchase one radio for instant multi-band communication – and streamline the expense of maintaining, installing, and operating multiple mobile radios. The APX 7500 mobile radio operates in 700/800 MHz and VHF and will be available in other bands as they become available.

The APX 7500 exemplifies Motorola's commitment to meet the voice and data demands of today's first responders in mission critical environments – to enable anywhere, anyplace, anytime connectivity.

Motorola is the leader in providing mission critical solutions that enable agencies to achieve interoperability goals, whether customers are upgrading an existing system or designing a new system from the ground up.

Top Mission Critical Communication Challenges – and how APX answers the call

Interoperability On Demand
Agencies from different jurisdictions often operate on different frequency bands – requiring agencies to install and maintain two radios in order to communicate with one another.

The APX solution: The APX 7500 multi-band radio can operate on both 700/800 MHz and VHF frequencies* – to enable instant, interoperable communications for improved coordination, response, and first responder safety.

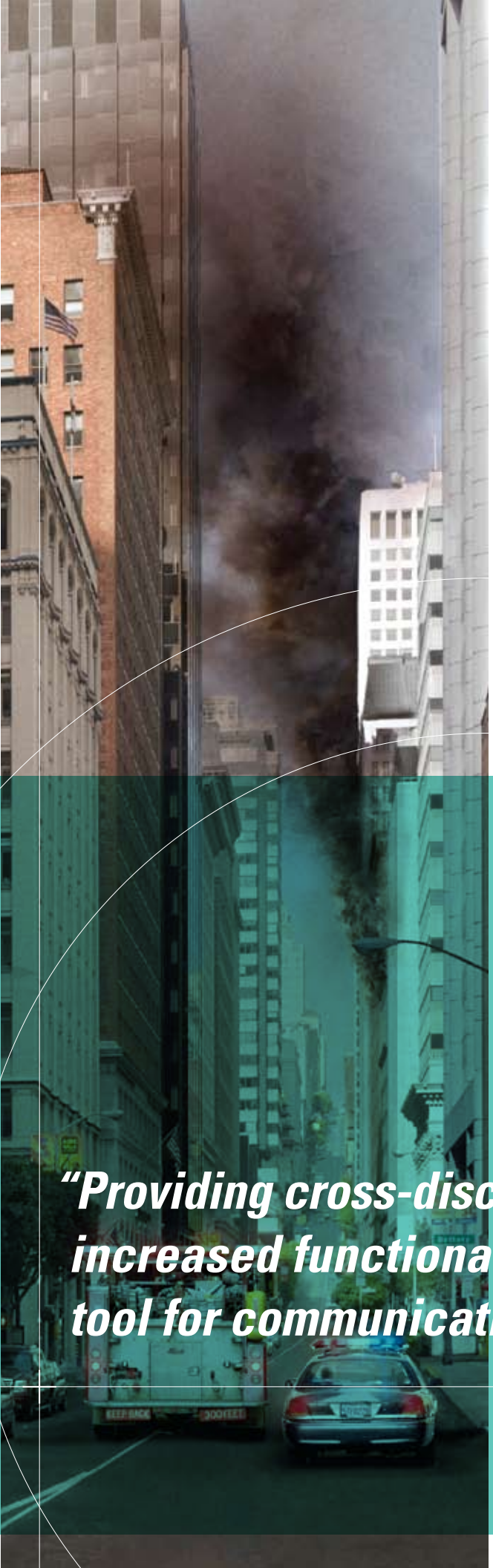
Ease of Installation
The area inside vehicles offers limited installation space and radios can be difficult to access.

The APX solution: The APX mobiles are designed to fit into the existing install space for ease of use, installation and removal. The mid and high-power mobiles, allow for reuse of mounting holes and cables. The new high power trunnion design provides secure engagement and ease of installation allowing the radio to be removed without removing the cables.

Future Ready Investment
Agencies want to protect current investments in mission critical radios and ensure that new radio purchases can be updated to utilize the latest advances in technology.

The APX solution: The APX 7500 is backwards and forwards compatible – it works on all existing ASTRO® 25 systems and will also work as customers migrate to advance technology such as TDMA. The radios have an expansion slot that makes adding future data applications, such as Bluetooth® possible.

**Additional bands will be available.*



Advanced Technology Provides an Answer

FDMA (Frequency Division Multiple Access) is a proven technology that is widely used today in radio systems and is part of Project 25 Phase 1. FDMA carries one call per channel. TDMA (Time Division Multiple Access) will be part of P25 Phase 2 requirements and it provides double the voice capacity. Customers can add more users to their system or more data services without the need for additional frequencies or infrastructure.

The APX radios support both P25 Phase 1 and Phase 2 technologies seamlessly. Using Motorola's unique Dynamic Dual Mode (DDM) capability, the radios dynamically switch between FDMA and TDMA without the user having to change channels. This provides complete interoperability and flexibility to communicate with existing and future networks.

APX is fully compatible with the Motorola ASTRO 25 Network

APX 7500 multi-band radios were designed to work with ASTRO 25, Project 25 standards-based communications networks. With integrated voice and data capabilities, the ASTRO 25 network offers improved communications between multiple agencies, as well as neighboring communities, from everyday operations to disaster response.

"Providing cross-discipline interoperability and increased functionality, APX is a cutting-edge tool for communications."

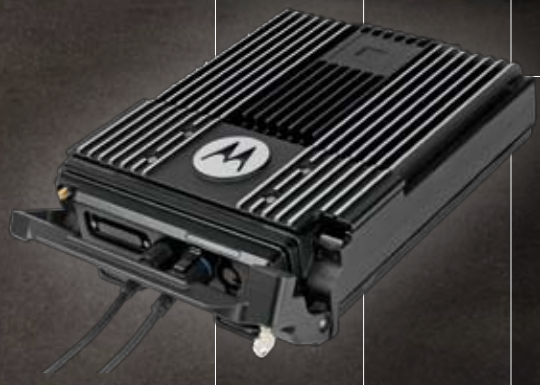
– Eugene Vardaman, Executive Director,
North Carolina Criminal Justice Information Network

Innovations that enhance safety and elevate performance

Advanced new features in a familiar design

Two APX 7500 models:

APX 7500 Mid Power and APX 7500 High Power



EASE OF INSTALLATION

+ Mid Power Install
Fits into the existing XTL footprint allowing reuse of the mounting holes and cables for ease of installation.

+ High Power Install
New trunnion design provides secure engagement, ease of installation and a new handle design that allows the radio to be removed without having to remove the cables.

+ RF ID
12 character RF ID asset tracking provides a fast, accurate and convenient method of obtaining valuable asset tracking information without having to uninstall the radio.

1 O3 Control Head
- + 4-line/14 character/2 icons character alphanumeric display
- + 3 x 6 keypad with up to 24 programmable soft keys
- + Cellular style user interface and color display

2 O5 Control Head
- + 4-line/14 character/1 icon customizable, tri-color LCD display
- + 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
- + Multiple control head configuration to fully control a single radio with up to 4 different wired locations
- + Motorcycle configuration available

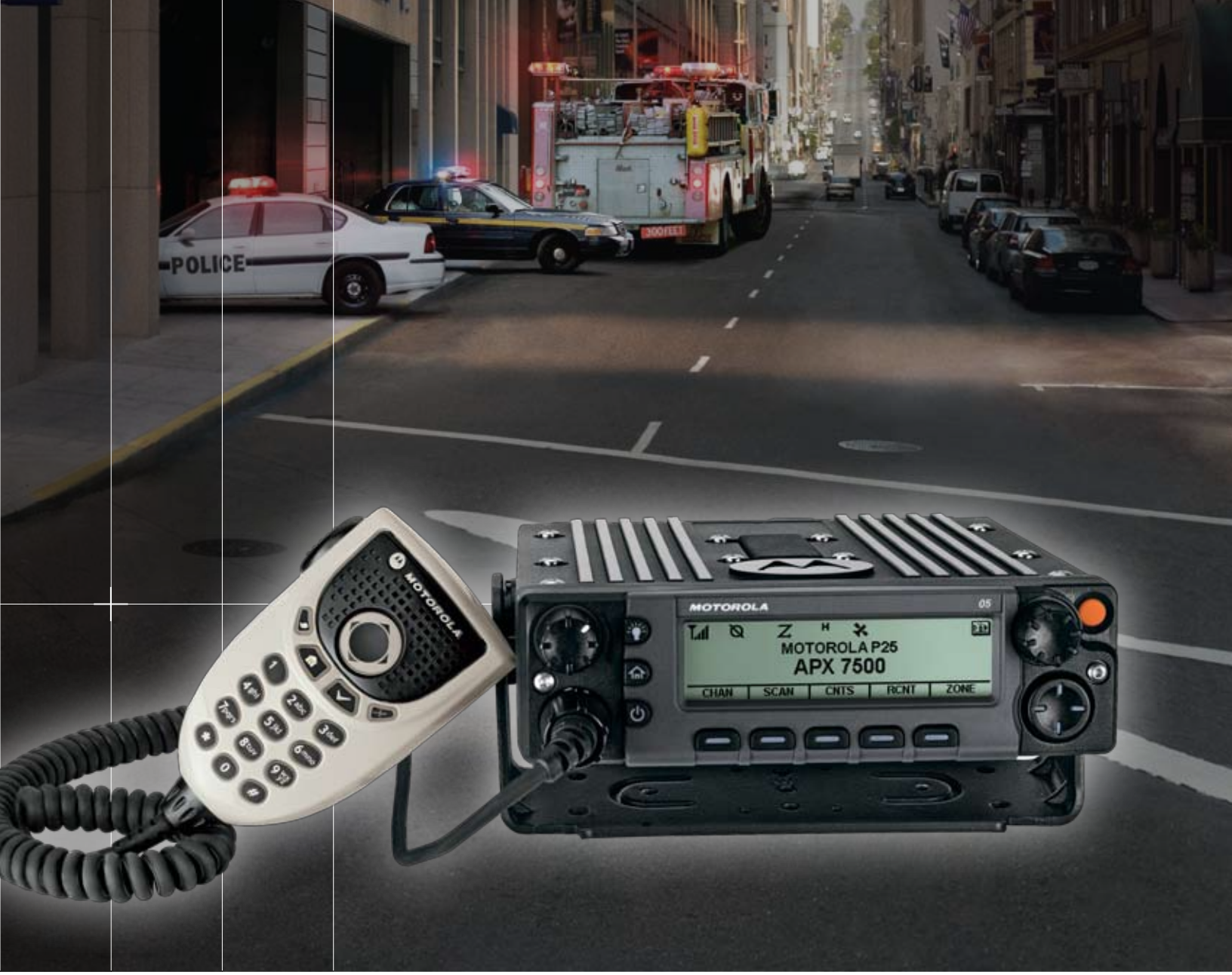
ADVANCED HARDWARE

Multi-Band Operation
Multiple frequency bands supported while maintaining APCO TIA transceiver specifications.

Seamless Scan
Seamless scanning of multiple protocols including FDMA and TDMA systems and multiple RF bands.

Integrated GPS
Integrated GPS receiver can transmit the outdoor location of a vehicle to a map-based location application.

Advanced Encryption
The mobile comes standard with FIPS certified encryption hardware for secure communications with greater security in a tamperproof solution.



ADVANCED SOFTWARE FEATURES

Intelligent Lighting

Intelligent lighting uses color to notify the user of the radio mode, potential emergencies, or specific events. Color alerts provide information at a glance.

Radio Profiles

Radios can be configured with multiple user-selected or automated operating behaviors such as audio level, lighting and tones. Whether on surveillance or working in bright sunlight, the user can customize settings as needed.

Text Messaging

Text messaging offers a free-form or canned messaging solution. Efficiently send and receive messages to and from subscribers or dispatch operators.

Unified Call List

Consolidates all call lists underneath one unified list. Users can easily access all information associated to a particular contact.

Voice Announcement

Voice Announcement allows the user to navigate through channels/talk-groups and zones in the radio while an audible, pre-recorded voice file provides a description of the selected channel or zone.

FUTURE READY

Expansion Slot

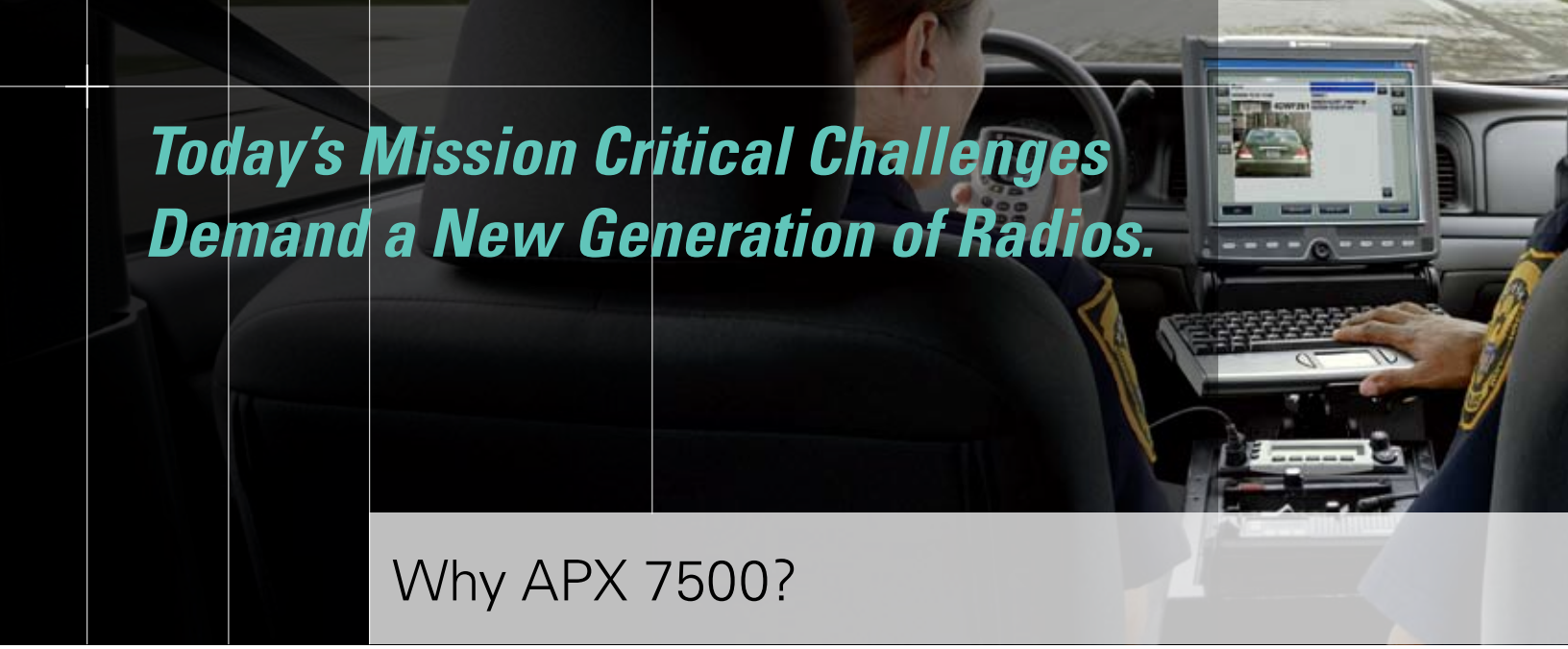
Expansion slot for future option cards, such as Bluetooth® and other future data applications. Future-application ready.

Memory

Expandable memory for storage of future data applications information. As technology needs grow, increased memory is available.

Programming over Project 25 (POP25)

Motorola's POP25 solution allows subscriber radios to be programmed over the air via the ASTRO 25 systems while remaining in the field.



Today's Mission Critical Challenges Demand a New Generation of Radios.

Why APX 7500?

Motorola's APX mobile radios deliver exceptional performance by combining advanced voice and data technology with legendary Motorola quality.

The innovative rugged design and safety-focused functionality is based on extensive user input and innovative engineering – continuing in the Motorola tradition of translating engineering breakthroughs into real world advantages to deliver the best two-way radios in the field.

INTEROPERABILITY ON DEMAND

APX 7500 operates in multiple bands and meets P25 public safety specifications for seamless multi-agency collaboration.

2-In-1 Radio

APX 7500 operates in 700/800 MHz & VHF and acts as two radios in one. Motorola has reduced the amount of equipment service shops must install and maintain.

MISSION CRITICAL DESIGN

The APX mobile radio was designed to maintain the same mounting foot prints as the XTL. The high power trunnion was completely redesigned for ease of installation, providing installation guides and rails, better engagement into the tray and enhanced handle grip.

Advanced Emergency Functionality

Motorola offers several Advanced Emergency features to assist in keeping mission critical users safe. When an emergency call is initiated; other users in a talk group will hear an alert and see the ID in their display. The Emergency Keep Alive feature ensures your emergency call is not dropped even if the radio power switches OFF. The Emergency with Voice to Follow feature allows communication without pressing the PTT button if needed.

Rugged Durability

The APX 7500 mobile radio meets IP55 water-intrusion ratings for driving rain giving you the confidence that your mobile will continue performing even if exposed to water.

FUTURE READY INVESTMENT

APX is backwards and forwards compatible with Motorola SmartNet®, SmartZone® and ASTRO 25 systems and offers future expandability for developing technologies.

Standards

APX 7500 supports P25 Phase 1 and is upgradable to support P25 Phase 2 to offer better spectrum utilization and double voice capacity using existing frequencies.

Data Capability

The APX 7500 is Integrated Voice & Data ready. With the ability to send and receive data through your trunking or conventional system infrastructure, APX is ideal for text messaging and can be used as a modem. Programming over Project 25 (POP25) allows the radio configuration to be accessed and updated over the air. APX also comes equipped with an integrated GPS Receiver for outdoor location tracking.

FLASHport™ Software

The APX 7500 has built-in FLASHport capability to support customizing the radio with new software.

Customer Programming Software

The APX radios utilize new and enhanced CPS software that is user friendly and provides increased speed and efficiency. The Built-in Codeplug Comparator allows easy diagnostics of codeplug differences.

Add-On. Optimize. Enhance.

Extensive line of Motorola Original® accessories for APX mobile radios

To complement the APX 7500 mobile two-way radio, Motorola Original® accessories are specifically designed for mission critical communications. Agencies can re-use many accessories from the Motorola XTL radio's that utilize the O5 and O3 control heads – maximizing investments while maintaining the latest technology.

Plus, Motorola offers the new IMPRES™ Smart Audio System which provides enhanced communication between the radio and the accessory optimizing the audio performance and assuring the highest quality communication.

AUDIO ACCESSORIES

Keypad Microphone
Access critical features directly from the microphone. A full keypad allows users to dial phone numbers and send text messages, while the navigational buttons allow users to navigate through radio menus. Also includes 3 programmable buttons for additional customization.

IMPRES Visor Microphone
Utilizes state-of-the-art IMPRES technology. Automatic gain control provides improved audio and consistent output. Small microphone mounts to vehicle's visor for convenient hands-free radio operation and safety while in a vehicle.

Desktop Microphone and Tray
These convenient accessories allow mission critical users to convert APX mobiles into simple base stations offering an ideal solution for dispatch and transportation users. Desktop tray and microphone sold separately.

ANTENNA

GPS Antenna
A separate GPS antenna is required in addition to the mobile RF antenna for GPS capability. This fixed-mount antenna is a discreet standalone antenna that has a semi-permanent mount easily assembled with minimal tools to vehicle roof or trunk.

Keypad Microphone

IMPRES Visor Microphone

Desktop Microphone and Tray

GPS Antenna

MOTOA4™

Mission Critical Portfolio

Technology That's Second Nature™

The APX™ Mobile Two-Way Radios are part of the MOTOA4 Mission Critical Portfolio of products that offer seamless connectivity between first responders. Motorola puts real-time information in the hands of public safety personnel to provide better information that enables better decisions for better outcomes. It's Technology That's Second Nature.

APX P25 Multi-Band Radios

Additional information and resources such as product information, brochures, and white papers are available on the APX product website found at **motorola.com/apx**.

> ***motorola.com/apx***

MOTOROLA

Motorola, Inc.
1301 East Algonquin Road
Schaumburg, IL 60196 U.S.A.
800-367-2346
www.motorola.com/apx

RC-1-2009B