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

Motorola APX™ 7000 Multi-Band Portable Radios

Motorola's most advanced portable radio delivers exceptional performance

APX P25 Multi-Band radios transform input from users into real world advantages for mission critical communications.

Motorola's APX 7000 P25 Multi-Band portable radios deliver exceptional performance by combining advanced voice and data technology driven by the challenges of mission critical users. APX portable radios provide interoperability on demand, as well as enhanced voice and data capabilities, in a revolutionary form factor optimized for use in high stress situations.

Designed with input from first responders, this rugged device is easy to use allowing personnel to focus on their mission, not the technology. In addition, the APX 7000 equips first responders with the loudest, clearest audio of any Motorola portable on the market – 50% louder than similar radios in its class*. APX 7000 radios meet current P25 public safety standards and are future-ready to support new technology and data applications.

The APX 7000 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.

Based on results of controlled engineering tests.

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

Interoperability On Demand

In mission critical situations agencies from different jurisdictions often operate on different frequency bands – requiring personnel to carry two radios in order to communicate with one another.
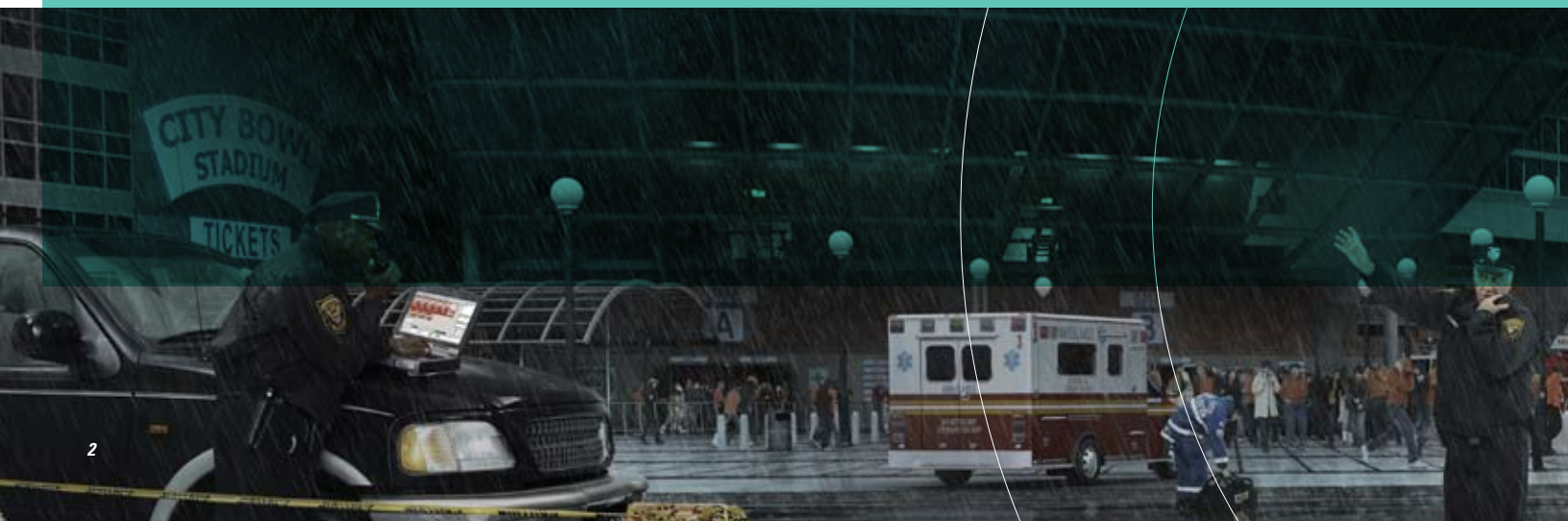
The APX solution: The APX 7000 multi-band radio can operate in any of 2 bands (VHF/UHF R1, or 700/800 MHz frequencies)*– to enable instant, interoperable communications for improved coordination, response, and first responder safety.

Mission Critical Form Factor

Users want an ergonomic and rugged device that delivers superior audio performance with real-time information in a smaller package.

The APX solution: The APX 7000 offers voice and data capabilities with a large color display, top display, keypad, and loud and clear audio in a compact rugged design. Its unique T-Grip form factor provides secure and easy handling.

Additional bands available in the future.

APX is fully compatible with the Motorola ASTRO® 25 Network

APX 7000 radios are designed to work with Motorola's ASTRO 25, Project 25 standards-based communications network. 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.

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 provide double the voice capacity. Customers can add more users to their system 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 interoperability on demand with existing and future networks.
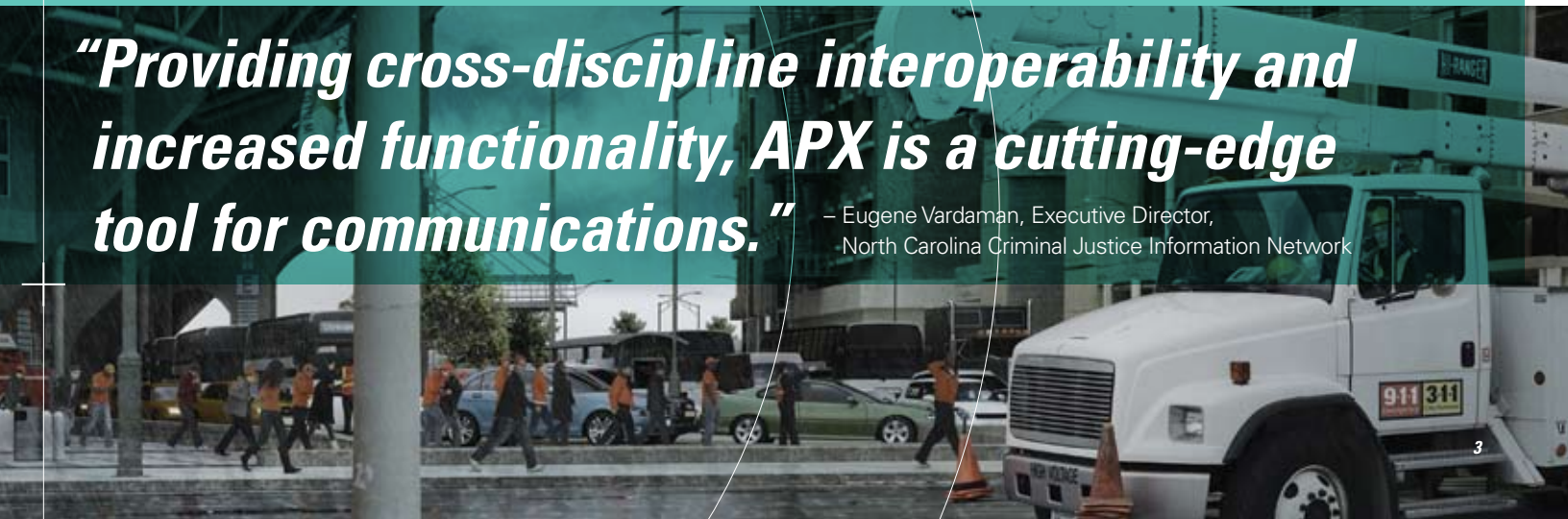
Future Ready Investment

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 7000 is backwards and forwards compatible – it works on all Motorola ASTRO 25 systems and will also work as customers migrate to advanced technology. The radios have an expansion slot that makes adding future data applications, such as Bluetooth®, possible without additional hardware updates.

"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

Innovation at every turn
Mission Critical two-sided design.
Highly functional and easy to operate.

Two APX 7000 models

+ Top Display model offers an
  8-character visible top display.
+ Dual Display model features a large
  color display, top display and keypad.

ERGONOMIC FORM FACTOR

1 Universal Push-to-Talk

Enlarged Push-to-Talk button with enhanced grooves is easy to access and simple to operate. Provides optimal tactility for right or left hand use.

2 T-Grip

The T-Grip design provides an enhanced slip-free grip and a wider control top area for increased knob spacing and differentiation in a seamless eyes-off, hands-on operation.

3 Dual-Battery Latch

The dual-battery latch system is designed for increased stability and is easy to secure with its Commercial 'Power Tool' style loading.

4 Accessory Connector

New portable accessory connector utilizes the IMPRES™ audio technology. It is extremely durable and offers increased intelligence for enhanced accessories.

USER INTERFACE

5 Two-Sided Design

Enhanced ergonomic design features a large color display, loud audio speaker and an enlarged keypad. Ideal for both voice and data communications.

6 Top Display

An 8-character visible display, presenting 32-character zone/channel data, provides information at a quick glance.

7 Large Color Display

High contrast color display with impact and scratch resistance is enhanced for legibility in all lighting conditions and durable in mission critical environments.

8 Enlarged Keypad

Keypad with increased spacing enables easy navigation, improved numeric input and better visibility.

SUPERIOR AUDIO

9 Dual Speakers

Dual sided speakers for optimized communication in both voice and data environments. The custom loud speakers reproduce speech dynamics for superior intelligibility in most environments*.

10 Dual Microphones

Dual-microphones with directional-sensing technology locates the talker and engages sophisticated algorithms in noisy or windy environments for clear communications.

* Recent studies have shown communication systems can be affected by certain high noise sources such as alarm systems in self-contained breathing apparatus or chainsaws in fireground environments.

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 to adjust audio level, lighting and tones through user selected or automated options. Whether on surveillance or working in bright sunlight, the user can customize settings as needed.

Text Messaging
Text messaging offers a freeform or canned messaging solution to efficiently and discreetly 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.

ADVANCED HARDWARE FEATURES

Multi-Band Operation
Multiple frequency bands supported while maintaining APCO and 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 an individual or vehicle to map based location software.

Encryption
Standard equipped with FIPS certified encryption hardware. Provides secure communications with greater security in a tamperproof solution.

Ruggedized Colored Housings
Customize your APX 7000 radio with a colored housing. Choose from 3 colors, traditional black, public safety yellow or impact green to help differentiate your teams.

FUTURE READY

Expansion Slot
Expansion slot for future option cards, such as Bluetooth® and other future data applications. Easily update radios to achieve the latest functionality.

Memory
Equipped with 64 MB of industrial grade internal memory and a removable memory MicroSD card slot. The removable memory card allows future expandability for growing technology needs.

Programming Over Project 25
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 7000?

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

INTEROPERABILITY ON DEMAND
APX 7000 operates in multiple bands and meets P25 public safety specifications for seamless multi-agency collaboration.

2-In-1 Radio
APX 7000 operates in any of 2 bands (VHF/UHF R1 or 700/800 MHz) and acts as two radios in one. Public safety officials can now reduce the amount of equipment responders must carry and maintain.

MISSION CRITICAL FORM FACTOR
The new two-sided ergonomic design was developed based on extensive user input. Available in optional colored housings, APX is rugged and easy to use in extreme environments.

Superior Audio Quality
The APX 7000 is the loudest Motorola portable available on the market. Dual speakers enable extremely loud, bi-directional audio when needed. It is equipped with Motorola's Noise Reduction Software (NRS) and dual microphones that virtually eliminate ambient background noise from radio transmissions, and improves user safety by making sure transmissions are not only heard, but are clearly intelligible.

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.

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 7000 supports P25 Phase 1 and is upgradeable to support P25 Phase 2 to offer better spectrum utilization and double voice capacity using existing frequencies.

Data Capability
The APX 7000 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 an RF 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.

Advanced Encryption
APX7000 raises the bar on two-way radio security offering FIPS 140-2 Level 3 certification. It includes the simplicity of both Infrastructure and Tactical Over the Air Rekeying (OTAR).

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. The Customizable Views feature allows users to see only the codeplug fields they are interested in. An Undo/Redo function makes changes easy. With Improved Help access the CPS automatically stays in synch with the user's selections.

Add-On. Optimize. Enhance.

Extensive line of Motorola Original® accessories for APX portable radios

To complement the APX 7000 portables, Motorola Original accessories are specifically designed for mission critical communications.

Motorola has expanded their portfolio of high performance audio accessories with the IMPRES™ enabled line of accessories. These accessories optimize the key aspects of audio quality – loudness, clarity and intelligibility.

AUDIO ACCESSORIES

IMPRES Display Remote Speaker Microphone

This IMPRES enabled RSM includes a display that mirrors the top display of the radio to show zone and channel information at a glance. Meets Ruggedized PLUS specifications for submersibility and includes the first rugged submersible audio jack from Motorola.

IMPRES 3-Wire Surveillance Kits

Flexible and most discreet communication option for surveillance activity. Includes one wire for receiving, one wire for the microphone, and one wire for push-to-talk functionality. Offers Motorola's state-of-the-art IMPRES technology which provides enhanced audio gain capability – a critical feature when whispering is required to remain discreet capability when officers need to whisper to remain discreet.

BATTERIES

IMPRES Batteries

IMPRES energy technology maximizes talk time and optimizes battery life. All IMPRES batteries are designed and manufactured to Motorola Proven Tough standards. High-capacity, Ruggedized PLUS and Intrinsically Safe options are all available.

CARRY DEVICES

Leather Carry Cases

Constructed of top-grain leather designed to withstand the harsh conditions of mission critical use. Two models: fixed-belt loop or a quick release swivel latch for a secure fit in high activity environments.

Universal Carry Holder

Sturdy hard-plastic case with a belt clip designed to support the APX 7000 Dual Display portable. The large display remains protected by facing in on the belt. One size fits all available batteries.

CHARGERS

IMPRES Dual Unit Charger

The unique, dual-pocket design allows simultaneous charging of primary and secondary batteries. Providing the convenience of a spare battery that is charged and ready to be used at all times. Utilizing IMPRES technology, the dual unit charger provides advanced features, including the ability to turn on/off reconditioning, reduced reconditioning time and improved energy efficiency.
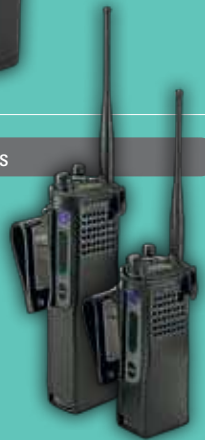
HMN4104 with RLN6424

IMPRES 3-Wire Surveillance Kits

IMPRES Batteries

Leather Carry Cases

Universal Carry Holder

IMPRES Dual Unit Charger

MOTO**A**⁴ ™
Mission Critical Portfolio

Technology That's Second Nature™
The APX™ Portable Multi-Band 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**

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