

**TETRA AND LTE PORTABLE DEVICE** 

YOUR APPS. YOUR COMMS. YOUR TEAM. TOGETHER



MXP7000 IS FOR USERS WHO NEED TO PUSH-TO-TALK AND RUN APPLICATIONS ON ONE RUGGED DEVICE

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# **MXP7000**

### MISSION-CRITICAL CONVERGED TETRA AND LTE PORTABLE DEVICE

The MXP7000 provides versatile communications. It delivers mission-critical TETRA and 4G LTE broadband voice and data communications, in a secure and rugged Android device.

It's easy to use and operate the MXP7000. The large push-to-talk button lets users connect instantly, and the field-swappable battery helps them stay connected longer. Innovative audio technology enables your personnel to hear and be heard clearly, even in noisy and windy conditions. It has a 5-inch touchscreen and the device can run applications for optimal workforce productivity.

The MXP7000 is easy to deploy and manage. Time consuming device updates are streamlined with Over-the-air updates available over Wi-Fi.

With both Bluetooth<sup>®</sup> 5.1 and a GCAI-mini connector you can provide your teams with accessories tailored to their needs.

No matter their mission, the MXP7000 is a device that helps your teams get the job done.

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# RUGGED **CONVERGED DEVICE**

#### **MISSION-CRITICAL CONNECTIVITY IN A SINGLE DEVICE**

The MXP7000 is a fully-featured missioncritical portable device with TETRA and LTE broadband voice and data communications. It enables individuals who work in challenging environments to stay connected and share large amounts of data from a single communication device.

### **RUGGED AND READY FOR ACTION**

The rugged MXP7000 is ready to handle tough conditions, so your personnel can work in all kinds of environments and weather, safe in the knowledge their device will keep them connected.

The display is made from tough Corning® Gorilla® glass. The MXP7000 has been tested to the MIL-STD-810H military standard developed by the U.S. Department of Defence. With its IP68 rating, the device can handle dust, dirt and submersion in water.

## LOCATION **PRECISION**

When the unexpected happens, it's important to know exactly where your people are. The MXP7000 supports GPS and aGPS (Assisted GPS) as well as other Global Navigation Satellite Systems (GNSS) including Galileo, Beidou and GLONASS.



# **SECURE COMMUNICATIONS**

Staying protected against threats is crucial. The MXP7000 is a highly secure converged TETRA and LTE device with multiple levels of security to protect your mission-critical device, data and communications. TETRA security features include Air Interface Encryption<sup>1</sup> (AIE) and Over-The-Air-Rekeying<sup>2</sup> (OTAR) which enables radio users to stay out in the field and have encryption keys remotely pushed to their device.

The MXP7000 is security hardened with a range of security features including:

- User Authentication using PIN or password
- Hardware-backed encryption with Trusted Execution Environment (TEE) for key storage
- Trusted boot process with the use of tamper resistant hardware
- Android OS hardening and SELinux access control
- Auditing / logging functionality, with security logs captured and stored in a secured manner
- Data-at-Rest protection using Android's AES256 File Based Encryption
- Data-in-Transit encryption with IPSec VPN support
- Secured device management and configuration with the use of our Integrated Terminal Management (iTM) solution
- Restricted Recovery Mode to avoid unauthorised access to features.

The MXP7000 also features Bluetooth 5.1 with Secure Connections (used in security mode 4, level 4 as recommended by NIST<sup>3</sup>), the highest Bluetooth security classification. The support of Secure Connections allows the MXP7000 to support the most up-to-date Bluetooth security practices, including the Advanced Encryption Standard (AES) algorithm, with 128-bit key length.

<sup>1</sup> MXP7000 supports TEA1, TEA2, TEA3

<sup>2</sup> Supports: Group Cypher Key (GCK), Common Cypher Key (CCK) and Static Cypher Key (SCK) <sup>3</sup> https://csrc.nist.gov/publications/detail/sp/800-121/rev-2/final

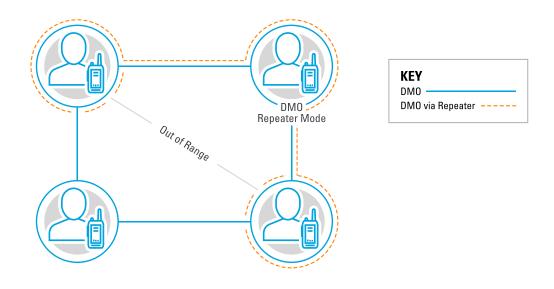


# MISSION-CRITICAL TETRA VOICE AND DATA COMMUNICATIONS

#### **RELY ON TETRA VOICE AND DATA COMMUNICATIONS**

The MXP7000 has been designed to provide workers with reliable TETRA coverage for voice and data.

It has high receiver sensitivity and 1.8 watt transmission power, allowing users to maintain conversations and send SDS messages over large distances. As well as featuring Trunked Mode Operation (TMO) for transmitting over the TETRA network, the MXP7000 also includes Direct Mode Operation (DMO) so that radios can communicate directly and independently with each other. In addition, the MXP7000 has DMO repeater functionality to act as a bridge between users who are out of coverage of each other, but within coverage of the first MXP7000. These features enable teams to stay in constant contact and react to whatever happens, whenever it happens.



WITH MISSION-CRITICAL COVERAGE, THE MXP7000 KEEPS TEAMS CONNECTED IN A WIDE ARRAY OF ENVIRONMENTS, FROM RURAL LOCATIONS TO BUSY CITY STREETS AND EVEN INSIDE BUILDINGS.

## **MISSION-CRITICAL TETRA AUDIO**

Being able to hear and be heard clearly, even in windy conditions or with loud background noise, is vital for successful communications.

The MXP7000 features an intelligent 3+1 audio architecture, for TETRA voice calls, made up of three microphones and a powerful loudspeaker. The loudspeaker can provide audio up to 99 Phon and can automatically be used as an additional microphone to reduce wind noise. The MXP7000 incorporates industry-leading audio processing technology to improve communications and ensure vital messages get through. Coupled with our exclusive advanced adaptive beam-forming noise suppression technology, the intelligent audio architecture enables your personnel to be heard and understood, no matter how tough the conditions.

#### Adaptive Multi-Microphone Beam-Forming Noise Suppression

Many radios use just one microphone and software algorithms to filter out noise during a group call. The MXP7000 uses an additional microphone on the back of the device, along with advanced algorithms for optimal noise suppression.

These microphones are arranged to optimise coverage for typical usage positions. Using beam-forming technology along with our adaptive noise suppression, we can effectively optimise the user's speech level while minimising the impact of loud background noise. The result is a device that gives you confidence that your users will be heard even in working situations with loud background noise.

#### Howling Suppression for TETRA voice

Using multiple radios in close proximity to one another, that are affiliated with the same talkgroup, can sometimes cause acoustic feedback howling and distortion that compromises radio communications. When enabled, the MXP7000 Howling Suppression audio profile will suppress this unwanted effect, resulting in clear and uninterrupted conversations.

#### Adaptive Wind Noise Mitigation

The MXP7000 keeps communications clear and intelligible even in windy conditions. Our adaptive algorithm detects when wind noise is present during a group call transmission. Using our patented technology, the MXP7000 then automatically employs the loudspeaker as an additional microphone for optimal wind noise mitigation. This innovative design significantly reduces the impact of wind noise, allowing for improved clarity of transmitted speech.

#### **INTELLIGENT 3+1 AUDIO ARCHITECTURE**

- Adaptive multi-microphone beam-forming technology for enhanced noise suppression
- The internal loudspeaker can operate a a microphone to minimise wind noise



# ENHANCED WITH LTE VOICE AND DATA CAPABILITIES

THE MXP7000 CAN PROVIDE MCPTT-BASED FEATURES OVER LTE BROADBAND VIA WAVE PTX

#### UNLOCK POWERFUL LTE MOBILE BROADBAND

Equip users with a single device that not only provides mission-critical TETRA voice and data communications but also broadband voice and data capabilities via LTE, as well as the ability to run Android applications.

The MXP7000 can run work applications created for your specific use cases. Whether that's location data on a military training exercise, PTT via WAVE PTX<sup>TM</sup>, mobile video footage from a roadside incident or servicing updates on the rail network, users get real-time visibility of the latest information.

### SHARE IMAGES AND VIDEO

Capturing and sharing visual information on a mission or at an incident helps teams understand issues and plan the best course of action. The MXP7000 includes a 13 megapixel rear camera with integrated flash and 8 megapixel front camera for taking high quality images and video. The video can also be streamed live over LTE.

### CREATE A LOCAL WI-FI HOTSPOT

Users can create a local Wi-Fi bubble with the MXP7000 for Wi-Fi enabled devices, such as a tablet. This enables devices tethered to the MXP7000 Wi-Fi Access Point to send and receive information over LTE.

## EXTEND PTT TO LTE

The MXP7000 can also provide PTT over LTE broadband via WAVE PTX. WAVE PTX is a carrier-independent broadband PTT service that delivers the MCPTT-based features necessary to enhance user safety, increase situational awareness, and improve operational efficiency. It allows the MXP7000 user to communicate over an LTE network using the same PTT button and user interface as when they are on a TETRA network.



# EASY TO USE

#### EFFORTLESS OPERATION IN THE FIELD

The MXP7000 has been designed for ease of use and operational efficiency in the field.

There's an array of easy-to-use controls, including a large dualfunction rotary knob for volume and talkgroup selection, two programmable buttons for activating frequently used functions, and a large dedicated push-to-talk (PTT) button for instant communications. Should users get into difficulties, the MXP7000 includes a large top-mounted emergency button that's protected from accidental activation, as well as an automatic Fall Alert (Man Down) feature. The camera flash LED on the back of the device can be used as a flashlight.

The MXP7000 features a toughened Corning<sup>®</sup> Gorilla<sup>®</sup> glass 5-inch touch screen display to take advantage of the capabilities of Android applications. The display has been optimised to support use with gloves, including disposable and combat gloves. Above the screen two status LEDs provide separate notifications for TETRA and LTE.

As all batteries eventually run out, the MXP7000 battery is easy to swap in the field – to enable teams to stay connected for longer.

## SUPPORTS COVERT OPERATIONS

The MXP7000 has features that make it suitable for military and undercover operations. The screen has a night vision mode. This dims the display to a very low intensity that can only be seen effectively while wearing night vision goggles. The device also supports covert mode – with all sound and visual indications including the display, LEDs and backlight disabled.



#### THE MXP7000 HAS INTUITIVE CONTROLS AND RUGGED 5-INCH TOUCH SCREEN



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Provide an experience tailored to your team with a wide range of accessories  $\!\!\!^4$  for the MXP7000.

#### Audio

There is a range of compatible audio accessories including remote speaker microphones and headsets for the MXP7000.

#### Energy

A variety of charging solutions are available, including dual-unit chargers, multi-unit chargers and USB-C charging via a wall adapter. Additional batteries are also available, so your teams can swap batteries in the field and keep going.



#### Carry

Whether your team wants to wear the radio on the shoulder, chest or hip, there's a range of carry accessories to choose from. The carry accessories are all designed for easy yet secure access to the MXP7000 and include carry cases, straps, shoulder-wearing accessories and belt clips.

<sup>4</sup> For a complete list of MXP7000 accessories, please talk with your local Motorola Solutions representative.

# SIMPLE TO DEPLOY AND MANAGE

#### STREAMLINED FIELD DEPLOYMENT

The MXP7000 uses the same Integrated Terminal Management (iTM) tool as other TETRA radios from Motorola Solutions for fast and easy programming of your fleet.

# **OVER-THE-AIR UPDATES**

The MXP7000 supports both 2.4GHz and 5GHz bands of Wi-Fi. Radio managers can take advantage of Wi-Fi for device programming and updates. Planned upgrades that would have taken weeks can now be done in a few days or a few hours. Instead of having to physically update each device, it can be updated as soon as it is in range of its assigned Wi-Fi. This reduces the hassle and operational downtime associated with upgrades.

Connections are secured via the Transport Layer Security (TLS1.2) protocol to ensure the data pipe between the device and the server is secure and data integrity is guaranteed. This means that updates can be performed securely anywhere the MXP7000 can access assigned Wi-Fi.



### GET THE MOST FROM YOUR MXP7000

To support your MXP7000 fleet and maximise the value of your investment, we offer a variety of service packages<sup>5</sup> that transfer the risk and responsibility of providing the right level of services for your needs to Motorola Solutions.

Service capabilities offered include:

#### Hardware Repair

Troubleshooting, testing and repairing your equipment at a centralised facility

#### **Technical Support and Service Desk**

Remote technical support services to ensure your radios are rapidly restored and functional

#### **Software Maintenance**

Access to latest certified software releases for reliable and secure device operations

You can rely on us to help you achieve your device performance targets and maximise the value of your radio investments with the right level of services designed specifically for your needs. Each package provides a higher level of support, transferring the risk and responsibility to Motorola Solutions.

<sup>6</sup>For the complete list of service packages, please talk with your local Motorola Solutions representative.



For more information, please visit: www.motorolasolutions.com/mxp7000



Specifications and product features subject to change without notice.

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