



FRONTLINE SAFETY, TODAY AND TOMORROW

MXP600 TETRA PORTABLE RADIO

MOTOROLA SOLUTIONS



BEING ON THE FRONT LINE IS TOUGH. WHO KNOWS WHAT THE DAY WILL BRING, AND WHAT CONDITIONS YOUR PEOPLE WILL FACE?

EMERGENCY RESPONDERS AND CRITICAL WORKERS NEED TO COMMUNICATE WITHOUT DELAY. THE RIGHT RADIO CAN MAKE ALL THE DIFFERENCE.

MXP600

FRONTLINE SAFETY, TODAY AND TOMORROW

We've listened to what frontline workers really want in a radio and built the MXP600 for them: a rugged and lightweight yet fully capable TETRA portable radio that's easy to carry and easy to use.

The MXP600 takes on the challenges of the front line, keeping your personnel safe while they deal with the safety of others. It has innovative audio technology so they can hear and be heard in the noisiest of conditions. It delivers best-in-class coverage so vital messages get through even in marginal coverage areas. Its rugged design copes with extreme environments, and its extended battery life outlasts a shift.

Budgets are limited and communications technology is changing rapidly. The MXP600 helps reduce your total cost of ownership by streamlining expensive and time-consuming radio management chores to become lightning fast and cost effective. Technologies like Bluetooth® 5.0 and Near-Field Communication (NFC) enable rich and secure collaboration, providing a leading-edge user experience today and leaving you ready for tomorrow. And the MXP600 protects your investment by letting you reuse many of the Motorola Solutions chargers and accessories you already have[1].

The MXP600 is a radio that gives your frontline staff the confidence to support the community. Ready to respond to sudden changes in the field and future changes in technology, it helps equip your front line to efficiently and effectively get the job done.

> THE MXP600 IS A RADIO THAT GIVES YOUR FRONTLINE STAFF THE CONFIDENCE TO SUPPORT THE COMMUNITY.

[1] For a full list of accessories, see the MXP600 accessories guide www.motorolasolutions.com/MXP600radio





MISSION-CRITICAL TETRA PORTABLE RADIO

MISSION-CRITICAL COVERAGE

In some areas, such as rural environments or inside buildings, the range of a portable radio can be limited by its transmission power and its receiver sensitivity.

With the option to ramp up to Class 3 (2.8W) transmission power and its high receiver sensitivity, you can rely on the MXP600 to keep you connected.

This TETRA Class 3 capable radio provides greater range than a Class 4 radio, allowing users to send voice and data messages and make emergency calls even in marginal coverage areas - so your staff are prepared to deal with whatever happens, wherever it happens.

WITH THE OPTION TO RAMP UP TO CLASS 3 TRANSMISSION POWER AND ITS HIGH RECEIVER SENSITIVITY, YOU CAN RELY ON THE MXP600 TO KEEP YOU CONNECTED.

ADAPTIVE MISSION-CRITICAL AUDIO

The crowd noise in a stadium during a football match. The wail of sirens rushing to an incident. How can you be sure your people can communicate when there's so much background noise? And what happens if they can't?

Hearing and being heard clearly are essential on the front line. That's why we built the MXP600 with a powerful 2W loudspeaker that enables your people to hear over crowd noise, machinery and blaring sirens.

The MXP600 has intelligent 3+1 audio architecture. Three dedicated microphones - one microphone for private call and two for group call. It also has the ability to automatically use the loudspeaker as a microphone when windy to reduce wind noise. Coupled with our exclusive advanced adaptive beam-forming noise suppression technology, these two group call microphones enable your personnel to be heard and understood, even if they are speaking in very loud work environments.

Along with the audio loudness and quality you'd expect from a Motorola Solutions TETRA portable radio, the MXP600 incorporates industry-leading audio processing technology to improve communications and get vital messages through.

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 MXP600 uses two microphones with advanced algorithms to automatically adapt to diverse environments for optimal noise suppression.

The pair of microphones are arranged for all-round coverage. Using beam-forming technology, we can effectively optimise the user's speech level while minimising the impact of loud background noise. Our adaptive noise suppression technology is effective from every direction and different usage positions. The result is a radio that gives you confidence that your users will be heard even in working situations with loud background noise.

Adaptive Wind Noise Mitigation

The MXP600 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 MXP600 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.

Automatic Howling Suppression

Frontline personnel often work in teams. Using multiple radios in close proximity to one another can sometimes cause acoustic feedback howling and distortion that compromises radio communications.

The MXP600 uses our innovative automatic acoustic feedback suppression algorithm to intelligently adjust itself automatically to avoid the negative effects of acoustic feedback. This enables teams and individuals to focus on the task at hand, rather than being distracted by having to lower audio volume or change feedback suppression settings manually as they move between environments.



LOCATION PRECISION FOR SAFETY AND INCIDENT MANAGEMENT

When the unexpected happens, it's important to know exactly where your people are.

Being able to pinpoint a frontline worker's location to just a few metres can make all the difference in keeping them safe and effectively managing an incident.

The MXP600 supports four Global Navigation Satellite Systems[2] (GNSS) including Europe's Galileo, China's Beidou, Russia's GLONASS, and the United States' GPS. It also works with regional systems, such as Japan's QZSS.

A combination of GPS plus Galileo provides location accuracy down to 1.2 metres[3]. Location accuracy makes a big difference: if an emergency button or Man Down feature has been activated on the MXP600, it enables dispatchers to pass on more accurate location information to others on the front line, so help can arrive faster.

BUILT FOR EXTREME CONDITIONS

Rugged and dependable, the MXP600 is ready for use in extreme conditions.

Tested to military standards[4], it can withstand drops from 1.2 metres to a hard floor. With IP65, IP66, IP67 and IP68 (2m, 2h) ratings, the MXP600 can also handle dust, dirt, heavy rain, jets of water and submersion in up to two metres of water for two hours. Your personnel can work reliably in all kinds of environments and weather, knowing their communications lifeline is intact.



Understanding IP Ratings

IP (Ingress Protection) ratings are an international standard used to define the degree of protection provided by mechanical casings and electrical enclosures. The first number defines the degree of protection from solids such as dirt and dust. The second number defines the degree of protection from various liquids and mositure.

Solids

6 Dust tight with no ingress of dirt for 2 to 8 hours.

Liquids

5 Protected against jets of water with limited ingress permitted.

6 Protected against water from heavy seas and powerful water jets.

7 Can withstand immersion in 15cm to 1m of water for 30 minutes.

8 Can withstand immersion in water at a depth greater than 1m for more than 30 minutes. The MXP600 can withstand immersion at 2 metres for 2 hours.

[2] Dual GNSS configuration: GPS plus Galileo, GLONASS, or Beidou
[3] Using industry-standard test protocol
[4] Refer to the MXP600 specifications sheet for full details www.motorolasolutions.com/MXP600radio

SECURE COMMUNICATIONS

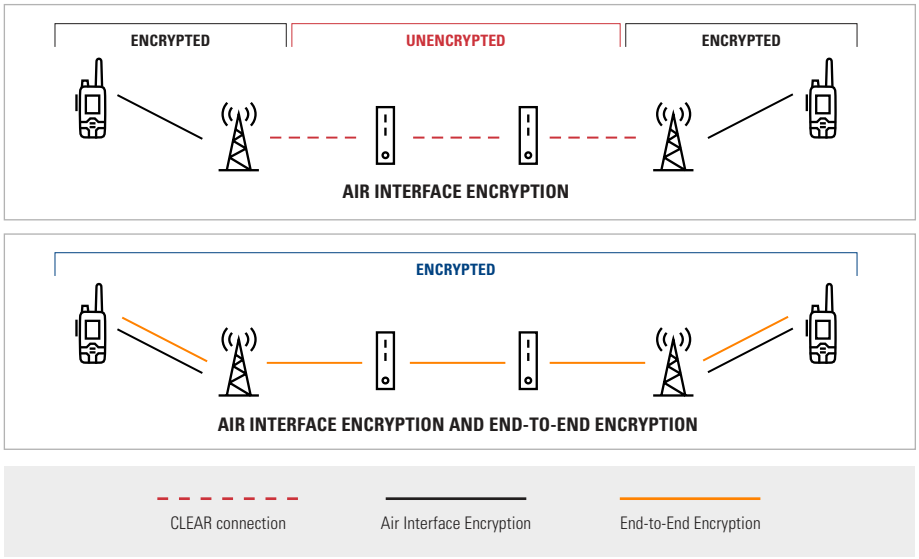
Threats against public safety communications and critical infrastructure are growing in reach and sophistication.

That's why it's important that your communications system uses the most modern security practices and complies with security guidelines. The MXP600 is the world's first TETRA radio with Bluetooth 5.0 with Secure Connections (used by security mode 4, level 4 as recommended by NIST[5]), the highest Bluetooth security classification. The support of Secure Connections with Secure Simple Pairing allows the MXP600 to support the most up to date Bluetooth security practices, including the military-grade Advanced Encryption Standard (AES) algorithm, with 128-bit key length.

End-to-End Encryption (E2EE)

With Air Interface Encryption, data is encrypted between terminals and base stations but unencrypted throughout the rest of the TETRA network, leaving the data exposed to insider threats. End-to-End Encryption (E2EE) closes this unencrypted gap and is available on the MXP600 via an optional Hardware Security Module (HSM). The HSM also uses military-grade 128-bit AES or 256-bit AES to encrypt voice, data and location information from sender to receiver.

The MXP600 also supports Over-The-Air-Rekeying[6]. This enables your radio users to stay out in the field and have encryption keys remotely pushed to their radio.



POWERED FOR THE LONGEST SHIFTS

Frontline staff work long shifts; those shifts can often be extended by unforeseen circumstances. They need a radio that can go the distance.

The standard battery lasts up to eighteen hours, and the optional high capacity battery lasts up to thirty hours[7], enough for even the longest of shifts. This ensures workers are never left high and dry in challenging environments, out of contact and without information. But all batteries eventually run out, so we've also made sure it's easy to swap batteries in the field. Nothing should be left to chance on the front line.

THE OPTIONAL HIGH CAPACITY BATTERY LASTS UP TO THIRTY HOURS[7], ENOUGH FOR EVEN THE LONGEST OF SHIFTS.

[5] https://csrc.nist.gov/publications/detail/sp/800-121/rev-2/final
[6] Supports: Group Cypher Key (GCK), Common Cypher Key (CCK) and Static Cypher Key (SCK)
[7] Under typical modelled conditions

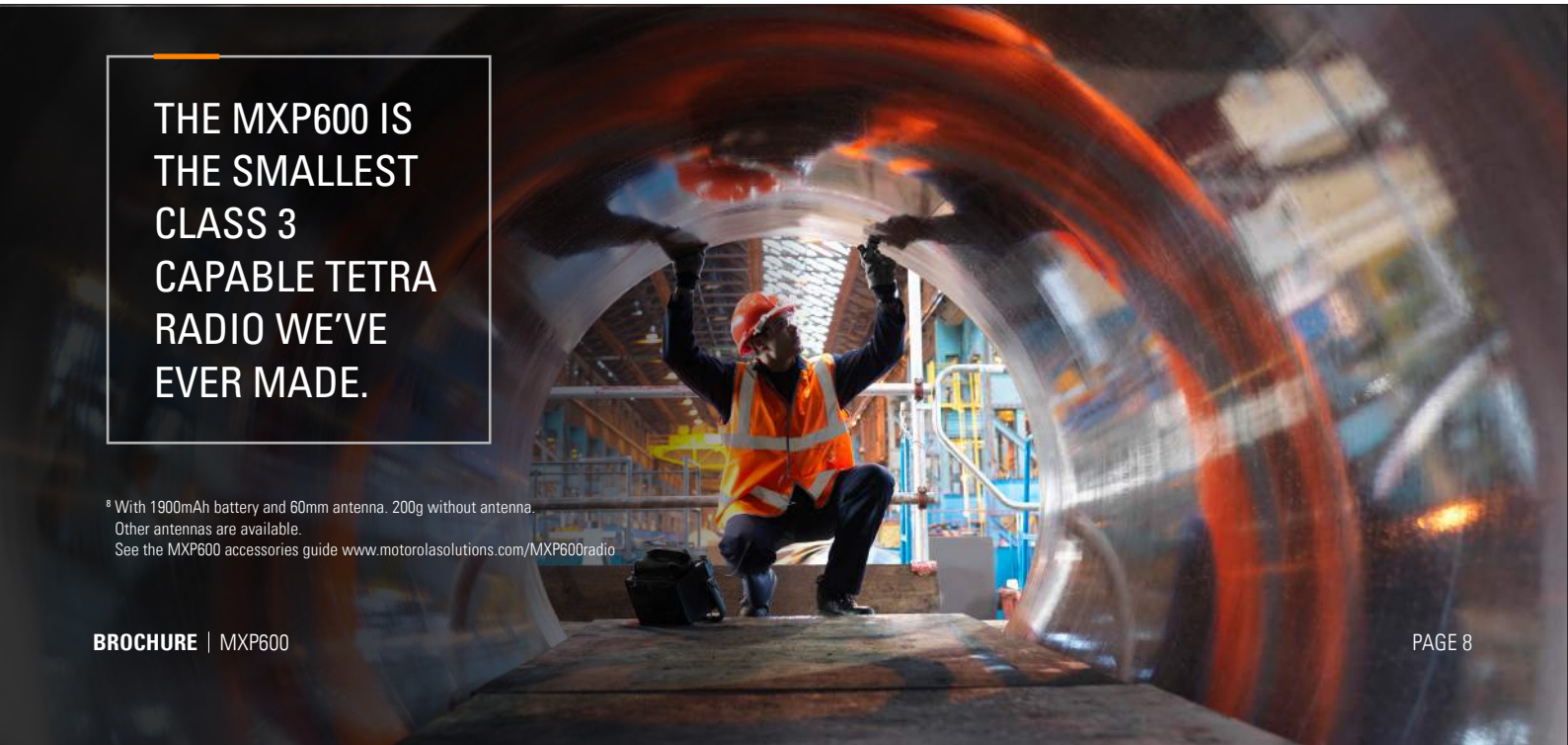
COMPACT YET EASY TO USE



SMALL AND LIGHT - YET FULLY FEATURED

Your personnel may be on their feet the entire shift, or they may need to enter and exit their vehicle multiple times a day.

They may need to work in rough terrain or sprint after a suspect - all the while carrying a lot of equipment. A small, light radio helps ease that burden - but usability is paramount. That's why the MXP600 is the smallest Class 3 capable TETRA radio we've ever made, yet it still has a full keypad, large screen and a battery that outlasts a shift.



THE MXP600 IS THE SMALLEST CLASS 3 CAPABLE TETRA RADIO WE'VE EVER MADE.

[8] With 1900mAh battery and 60mm antenna. 200g without antenna. Other antennas are available. See the MXP600 accessories guide www.motorolasolutions.com/MXP600radio

THE MXP600 HAS A SLEEK, MODERN DESIGN WITH A LARGE 2.4 INCH SCREEN AND A USER-FRIENDLY, INTUITIVE INTERFACE THAT PUTS INFORMATION RIGHT AT THEIR FINGERTIPS.



EASY TO CARRY AND EASY TO WEAR

A range of attachment and carry accessories are available that make wearing the radio as easy as possible so your people can move around with ease and focus on getting the job done.

We considered how the radio would be carried – on the chest via industry standard uniform attachments, on a belt clip, in a holster or lanyard, on a shoulder harness or just in the hand – then created a radio that would best meet these needs with small dimensions and low weight.

EASY TO USE

Frontline staff have no time to fumble with buttons and search for critical information – they need to see and access it instantly.

The MXP600 has a sleek, modern design with a large 2.4 inch screen and a user-friendly, intuitive interface that puts information right at their fingertips. Three programmable side buttons allow users to activate their most frequently used functions without even looking at the device: the emergency button is large and easy to operate, yet well protected from accidental activation; and there's a tactile glove-friendly PTT that allows easy communication on the job.

With a compact, reliable connector for wired accessories and Bluetooth 5.0 for wireless connection, it's easy to connect to a range of accessories, including remote speaker microphones and headsets, to tailor performance to individual needs.[9]

[9] For a full list of accessories, see the MXP600 accessories guide www.motorolasolutions.com/MXP600radio



FUTURE-PROOF THROUGH COLLABORATION

FUTURE-PROOF FEATURES PROTECT YOUR INVESTMENT

With a working lifespan of many years, portable TETRA radios are an investment in the future.

We've designed the MXP600 with features that you can take advantage of today such as Bluetooth 5.0, as well as features for tomorrow such as High Definition (HD) voice hardware.

Smartphones are extremely useful for tasks requiring a lot of interaction with data, such as electronic notebooking or job scheduling. TETRA radios, on the other hand, are ideally suited for mission-critical voice communications.

With more and more professional users carrying both a smartphone and a radio, we worked with customers to develop solutions around the MXP600 that suit the modern way of working.

NOT ONLY DOES BLUETOOTH 5.0 FUTURE-PROOF YOUR TETRA RADIO, IT ALSO DRAWS LESS POWER THAN BLUETOOTH 4.2.

THIS HELPS ACCESSORIES WITH SMALL BATTERIES, SUCH AS EARPIECES, LAST LONGER IN THE FIELD.

TAP TO CONNECT - FAST AND EASY BLUETOOTH PAIRING

The MXP600 is our first TETRA radio that comes with integrated NFC.

NFC lets smartphones initiate pairing easily using Bluetooth, just by tapping the smartphone and the radio together[10]. This feature is especially convenient at the start of a shift when many people may be pairing or searching for Bluetooth devices. NFC can also be used for asset management - ideal for pooled devices.

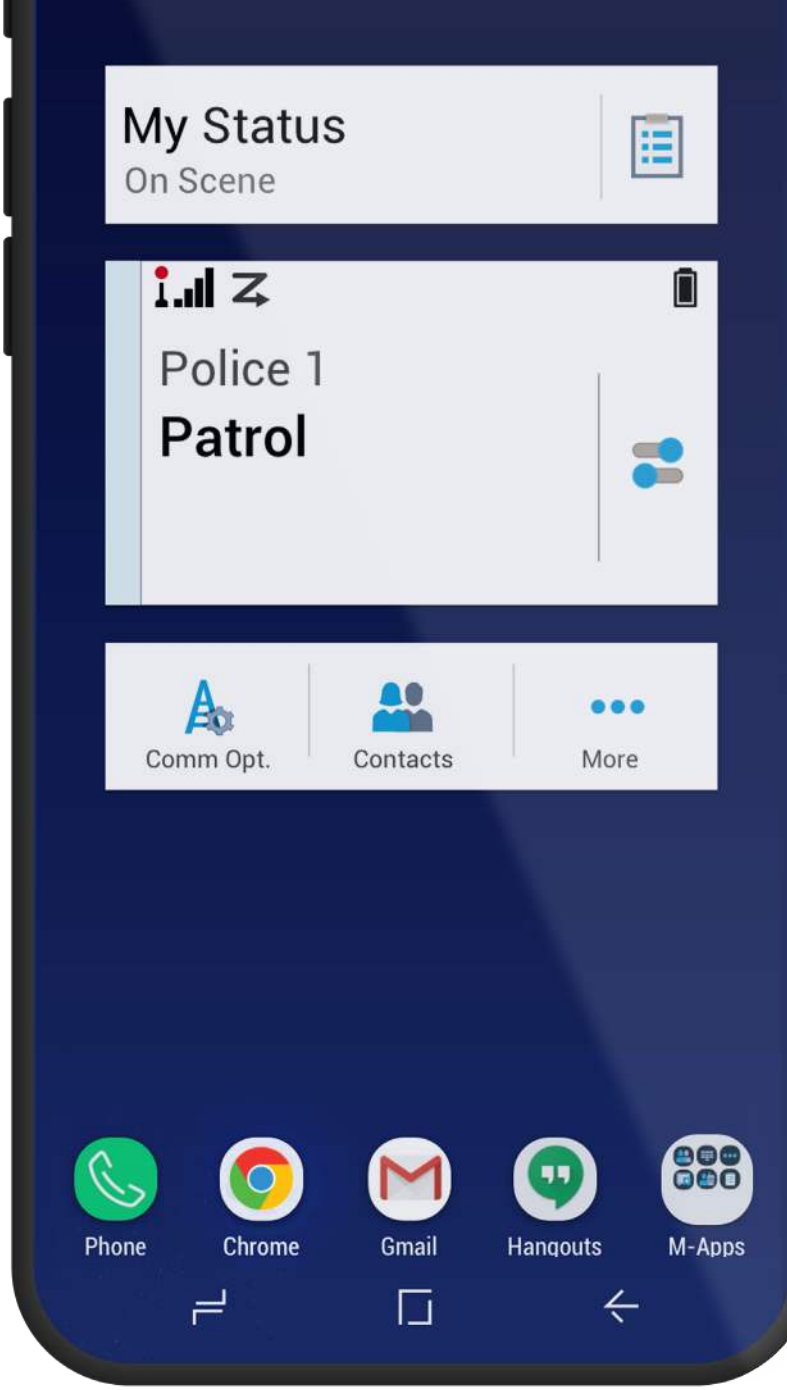
And because security is so important, we follow the NIST recommendations supporting out-of-band (OOB) pairing verification during the Bluetooth pairing process, to mitigate man-in-the-middle attacks.

RADIO CONTROL FROM A SMARTPHONE

We've designed the MXP600 to be easy to use, with a large screen and intuitive hardware controls.

Frontline personnel often work in conditions where it's not convenient to detach and operate a radio, or in plain clothes where having a radio on display might not be desirable. For these situations, we've made it easy to quickly and securely pair a smartphone with the MXP600 over Bluetooth 5.0, then use the collaborative M-RadioControl app on the smartphone to control the radio.

M-RadioControl is particularly useful for deeper interaction with the radio, such as searching for talkgroups, sending status updates, and sending SDS messages; while keeping the radio attached to the body - or discreetly out of sight - for instant, easy communication.



MISSION-CRITICAL COMMUNICATIONS TODAY AND TOMORROW

The evolution of public safety means that more and more countries are deploying or planning to deploy mobile broadband for mission-critical communications alongside their TETRA networks.

With fast and secure Bluetooth 5.0, the M-RadioControl app, and HD voice hardware, the MXP600 protects your investment and eases any adoption of 4G and 5G mobile broadband, allowing you to continue communicating using the same radios. You can relax, knowing your dependable MXP600 radios will be helping your teams protect the community.

HD voice for mobile broadband PTT + RSM mode with DMO backup

The extra bandwidth available to mobile broadband devices and their voice applications enables them to have greater audio quality than a narrowband radio.

The MXP600 is hardware-ready for HD voice - to support the delivery of high-fidelity voice when paired with a mobile broadband device running a Mission-Critical PTT (MCPTT) application.

Use the compact, yet capable, rugged device as a TETRA radio today. And tomorrow use the MXP600 as a mobile broadband device RSM with TETRA backup.

The dependable MXP600 provides mission critical communications to your teams today and into the future.

[10] Requires smartphone NFC support

DESIGNED FOR LOW TOTAL COST OF OWNERSHIP

BACKWARD COMPATIBLE, FORWARD THINKING

The MXP600 is compatible with selected existing chargers, car kits[11], audio accessories[12], and programming software.

This makes the radio a sound financial choice with a low cost of ownership and easier migration, saving money upfront and over the course of many years. And with an intuitive and familiar look and feel, it also requires minimal training so your users can get up and running quickly and easily.

SECURE TETRA AND WI-FI OVER-THE-AIR PROGRAMMING

- UPDATE THE CODEPLUG, OUT IN THE FIELD, WITH TETRA OTAP
- UPDATE THE CODEPLUG AND FIRMWARE OVER WI-FI

[11] With new mounting cradle
[12] Adapter may be required

PLANNED UPGRADES THAT WOULD HAVE TAKEN WEEKS CAN NOW BE DONE IN A FEW DAYS OR A FEW HOURS, WITHOUT INTERRUPTING WORK OR REQUIRING A TRIP TO THE STATION.

FAST AND EFFICIENT RADIO UPDATES - OVER-THE-AIR-PROGRAMMING

Keeping your radio fleet up to date with the latest codeplugs and firmware is vital. Failure to do this could mean that some features no longer work properly in the field, a cyber security vulnerability isn't patched, or users may not have access to the talkgroups they need. This could leave users vulnerable to eavesdropping or communication interruptions.

Traditionally, upgrades required radios to be taken to a radio maintenance base where they would be docked and updated. With a large fleet of radios, this could be costly and time-consuming to coordinate with users. To make maintaining and managing fleets of radios easier and faster, the MXP600 supports secure Over-The-Air-Programming (OTAP) via your existing TETRA network and via Wi-Fi.

OTAP reduces the operational downtime associated with having radios returned to base for physical docking to receive updates. Instead, updates are handled remotely in the field, in the background, while the radio is still in use. Radio administrators can take advantage of the OTAP capability of the MXP600 to wirelessly program many radios at once. Planned upgrades that would have taken weeks can now be done in a few days or a few hours, without interrupting work or requiring a trip to the station.

LMR OTAP via the TETRA network

OTAP via a TETRA network enables the codeplugs on the MXP600 to be reconfigured or upgraded over-the-air, while the radio is in use in the field, keeping key attributes such as talkgroups, status message lists and contact lists up to date. This capability is ideal for small, urgent codeplug changes. Since the updates occur over the existing TETRA network, no additional infrastructure investments are needed to enable this feature.

Wi-Fi for Over-The-Air programming and firmware updates

Taking advantage of the broad data pipe of the Wi-Fi Network, Wi-Fi Over-The-Air Updates (OTA Updates) are ideally suited to more comprehensive software updates. The MXP600 supports both 2.4GHz and 5GHz bands of Wi-Fi. New radio firmware updates are quickly downloaded to the radio while it's in operation, eliminating downtime. You can also reconfigure radio codeplug programming with OTAP over Wi-Fi.

Connections are secured via the Transport Layer Security (TLS1.2) protocol to ensure the data pipe between the radio and the server is secure and data integrity is guaranteed. This means that OTAP can be performed securely anywhere the radio can access assigned Wi-Fi - for example, at the station or at an approved satellite location.



BUILT FOR THE FRONT LINE



LARGE DEDICATED EMERGENCY BUTTON

COVERAGE INDICATOR





[13] For a full list of accessories, see the MXP600 accessories guide www.motorolasolutions.com/MXP600radio



ACCESSORIES TO MEET YOUR NEEDS

Provide a radio experience tailored to your team and their unique needs with wide range of access accessories available for the MXP600.

AUDIO

LOUD AND CLEAR, DESIGNED FOR COMFORT AND WEARABILITY



A range of wired and wireless audio accessories enable a tailored experience. Bluetooth 5.0 provides fast and secure wireless connectivity, while the sleek and compact GCAI-mini wired accessory port is designed for improved wearability.

The new covert surveillance earpieces are designed for comfort with a lighter weight, modern look and sleek profile. Like the MXP600, these new earpieces are HD voice ready. The speaker element has moved closer to the ear tube, reducing the audio travel length and preserving audio quality.

These earpieces support a customisable extra loud feature, enabling the received audio to be twice as loud as our previous TETRA portable radio earpieces.

The wired RM780 RSM is slim, with a new low profile swivel clip for easy wearability. Motorola Solutions' Windporting technology ensures audio is loud and clear. An IP68 (2m, 4h) waterproof rating, fast water drainage and work-while-wet capabilities provide the best audio experience in every environment.

ENERGY

MAXIMISE POWER FOR THE LONGEST SHIFTS



If the battery dies, it jeopardizes everything. Our slim, lightweight batteries provide a battery life of up to eighteen hours with the standard battery and up to thirty hours[14] with the high capacity battery – ensuring the MXP600 works when you need it.

For working in cold environments, the 2900mAh battery works down to -30°C.

A variety of flexible charging solutions enables you to charge one or up to twenty-four batteries simultaneously - so your radios are always ready for the next shift.

CARRY

SECURE, EASY ACCESS



Whether the members of your team want to wear the radio on the shoulder, chest or hip – there's a carry accessory to meet their needs. Choose from a range of leather carry cases, straps, shoulder-wearing accessories and belt clips, all designed for easy yet secure access to the MXP600 radio - so your team can stay hands free and focused on the task ahead.

For a complete list of MXP600 accessories, please visit
www.motorolasolutions.com/MXP600radio

[14] Under typical modelled conditions



DEVICE SERVICES

ACHIEVE MISSION CRITICAL PERFORMANCE

Radio performance is critical for effective mission-critical operation. Your users rely on their radios to be available and connected.

You and your users count on the radio to operate at optimal efficiency. To help support the performance of your MXP600 radio fleet and maximise the value of your investment, we offer a variety of service packages that transfer the risk and responsibility to Motorola Solutions to provide the right level of services for your radio fleet needs.

The service capabilities offered include:

- **Hardware Repair**
  Troubleshooting, testing and repair of your equipment at a centralised facility
- **Accidental Damage**
  When the unexpected happens, we have you covered with a quick repair turnaround
- **Technical Support and Service Desk**
  Remote technical support services to ensure that your radios are rapidly restored and functional
- **Software Maintenance**
  Access to latest certified software releases ensure 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.

For the complete list of service packages, please visit
www.motorolasolutions.com/deviceservices

FRONTLINE SAFETY, TODAY AND TOMORROW

For more information about the MXP600 TETRA Portable Radio please visit: **www.motorolasolutions.com/MXP600**

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