MTM5400
TETRA MOBILE RADIO
Enabling Current and Future Critical Communications

Key Benefits Include

Extended Operational Range
- Up to 10W transmit power, with class leading receiver sensitivity delivers comprehensive network coverage
- Integrated DMO Gateway, DMO Repeater capabilities ensure resilient communications where needed most

Superior Audio Performance
- Next generation audio architecture delivering the loudest and clearest audio performance of any Motorola TETRA mobile available on the market*

High Speed Data Connectivity
- TEDS Ready hardware - with a simple software license upgrade, enables 20x faster data connectivity for accessing back-office systems and databases
- Integrated USB 2.0 PEI, enabling rapid radio programming and standardised interfacing to data terminals and accessories. For additional flexibility, USB host and slave modes are also supported

Low User Migration Costs
- Familiar cellular style user interface and VGA colour display for enhanced usability and reduced staff training costs
- Same user interface as market proven MTP850 portable and MTM800 Enhanced mobile radios
- Re-use of MTM800 Enhanced accessories using GCAI connector

Enhanced End to End Encryption Options
- Integrated hardware for SIM based end to end encryption
- Hardware Encryption (AES128 or AES256 MACE) option

*Assuming the appropriate audio accessory is used.

Advanced Terminal Management
- USB 2.0 interface for fast radio programming via Motorola’s integrated Terminal Management solution
- Hardware ready for Over-The-Air terminal management
- Enabled via a software update, background programming will allow the radio to be programmed whilst staying fully functional

Flexible Installation Options
- Fully DIN-A compatible and available in Dash, Desk, Remote Head and Motorcycle mount formats
- Supports multiple control heads - an ideal solution for installations in trains, ambulances and fire vehicles where more than one control point might be required
- Works seamlessly with existing MTM800 Enhanced control head accessories

Rugged Design with Exceptional Reliability
- Includes IP67 control head option, for exposed and challenging environments
- Front and Rear rugged GCAI connector for reliable connection of audio and data peripheral equipment
- Mobile radio and accessories are performance matched for enhanced reliability

The first of a new generation of TETRA radios, the MTM5400 underlines Motorola’s commitment to meeting the current and future needs of critical communications. This new radio supports a number of advanced capabilities including TEDS high speed data connectivity, integrated Direct Mode Gateway-Repeater, over the air programming and Background Programming, that combine to enhance operational efficiency and to enable users to make more informed decisions in the field.
Specifications

**MODELS - COMPLIANCE WITH DIN 75490 (ISO 7736)**

**Dash**
Compact radio for fast vehicle installation

**Desk**
Compact radio, for use in the office. Optional range of accessories such as desk tray with integrated loudspeaker

**Multiple Remote Control Head**
Radio with multiple remote mount control head capability. Range of installation options enable use in cars, vans and other vehicles

**Motorcycle**
Environmentally enhanced radio meeting IP67 specification. Suitable for demanding environments such as motorcycle, fire appliance and marine installations

**Expansion head “Databox”**
Radio without a control head, for data applications, or customised application development

**GENERAL**

<table>
<thead>
<tr>
<th>Dimensions HxWxD (mm)</th>
<th>Weight Typical (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dash and Desk models (transceiver + control head)</td>
<td>60x188x198</td>
</tr>
<tr>
<td>Transceiver only</td>
<td>45x170x169</td>
</tr>
<tr>
<td>Standard control head</td>
<td>60x188x31</td>
</tr>
<tr>
<td>Remote control head</td>
<td>60x188x39</td>
</tr>
<tr>
<td>Motorcycle control head</td>
<td>60x188x39</td>
</tr>
</tbody>
</table>

**USER INTERFACE & DISPLAY**

<table>
<thead>
<tr>
<th>Display</th>
<th>Diagonal dimension</th>
<th>2.8”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>VGA - 640x480 pixels Transflective TFT, 65,000 colours</td>
<td></td>
</tr>
<tr>
<td>Backlight</td>
<td>Variable backlight, User configurable</td>
<td></td>
</tr>
<tr>
<td>Font sizes</td>
<td>Standard &amp; Zoom mode 180 pixels, 4.5mm high characters</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buttons &amp; Keypad</th>
<th>Numeric</th>
</tr>
</thead>
<tbody>
<tr>
<td>International keypad versions</td>
<td>Roman, Arabic, Cyrillic, Korean, Chinese, Taiwanese characters</td>
</tr>
<tr>
<td>Programmable function keys</td>
<td>3 programmable function keys (plus 10 programmable numeric keys)</td>
</tr>
<tr>
<td>Navigation</td>
<td>4-way navigation key, menu and soft keys</td>
</tr>
<tr>
<td>Emergency</td>
<td>Emergency button with backlight</td>
</tr>
</tbody>
</table>

| Shortcuts | User configurable shortcuts to menus and common features using “One-Touch-Button” feature |

<table>
<thead>
<tr>
<th>Rotary</th>
<th>Dual function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talkgroup and volume change with lock option</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indication</th>
<th>LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Tri-colour LED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>User Interface Languages</th>
<th>Standard Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic, Chinese Simplified, Chinese Traditional, Croatian, Danish, Dutch, English, French, German, Greek, Hebraic, Hungarian, Italian, Korean, Lithuanian, Macedonian, Mongolian, Norwegian, Portuguese, Russian, Spanish, Swedish</td>
<td></td>
</tr>
</tbody>
</table>

| User defined | User programmable, using ISO 8859-1 character |

<table>
<thead>
<tr>
<th>Menu</th>
<th>Tailored to user needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menu Shortcuts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contacts Management</th>
<th>Cellular Type</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Contact List</th>
<th>Up to 1000 contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 6 numbers per contact, Max 2000 numbers</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multiple Dialing Methods</th>
<th>User selects how to dial</th>
</tr>
</thead>
</table>

| Fast/Flexible Call Response | Private Call Response to a Group Call via One Touch Button |

| Multiple Ring Tones | |

<table>
<thead>
<tr>
<th>Message Manager</th>
<th>Cellular Type</th>
</tr>
</thead>
</table>

| Text message list | 20 |

<table>
<thead>
<tr>
<th>Intelligent Keypad Text Input</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Status list</th>
<th>100</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Country/Network Code List</th>
<th>100</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Scan lists</th>
<th>40 lists of 20 groups</th>
</tr>
</thead>
</table>

| Discrete Mode | |

| Screen Saver | GIF image & text (any user’s selection) |

| Universal Time Display | |

| Keypad Lock | |

<table>
<thead>
<tr>
<th>Talkgroup Folders</th>
<th>Dual layer folder structure (folder/subfolder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>256 folders</td>
<td></td>
</tr>
</tbody>
</table>

| Menu Configuration | |

| Favourite Folders | Up to 3 (to store any favourite talkgroup) |

| ENVIRONMENTAL SPECIFICATIONS | |

<table>
<thead>
<tr>
<th>Operating Temperature (°C)</th>
<th>-30 to +60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature (°C)</td>
<td>-40 to +85</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not in use - Storage</th>
<th>ETSI 300 019-1-1 CLASS 1.3 Non-Weather Protected Storage Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in use - Transportation</td>
<td>ETSI 300 019-1-1 CLASS 2.3 Public Transportation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stationary use - Weather Protected Locations</th>
<th>ETSI 300 019-1-3 CLASS 3.2 Partly Temperature Controlled Locations</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mobile use - Ground Vehicle Installation</th>
<th>ETSI 300 019-1-5 CLASS 5.2 Climatic Tests</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mobile use - Ground Vehicle Installation</th>
<th>ETSI 300 019-1-5 CLASS 5.3 Mechanical Tests</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MIL STD</th>
<th>810C/D/E Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 11 categories met (or exceeded)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dust and Water Ingress Protection</th>
<th>IP54 (dust cat: 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dash/Desk/Remote models</td>
<td>Motorcyle model (only control head is IP67, transceiver is IP54)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
</table>

### Electrical Specifications

- **Voltage Range**: 10.8 to 15.6 V DC
- **Idle / Rx / Tx @ 10W**: 0.5 / 1.0 / 1.2 (TX 3.4A Peak)
- **Idle / Rx / Tx @ 3W**: 0.5 / 1.0 / .9 (TX 2.2A Peak)
- **Tx - Multi Slot PD (4 slots) @ 5.6W**: 2.7
- **Tx - TEDS @ 3W**: 2.3
- **Using USB host**: Adds 0.5A

### RF Specifications

- **Frequency Bands (MHz)**: 380 - 430
- **Transmit / Receive Separation (MHz)**: 10
- **TMO Switching Bandwidth (MHz)**: 50
- **DMO Switching Bandwidth (MHz)**: 50
- **RF Channel Bandwidth (kHz)**: 25
- **Transmitter RF Power**: TETRA Release 1
  - Adjustable to Class 2 (10W), Class 3 (5.6W), Class 3 (3W)
  - Note: MSPD limited to Class 2L (5.6W)
- **TETRA Release 2 (TEDS)**: Class 3 (3W)
- **RF Power Control**: 6 Power Step Levels (steps of 5 dBm)
  - Starting at 15 dBm, finishing at 40 dBm
- **RF Power Level Accuracy**: +/- 2dB
- **Receiver Class**: A & B
- **Receiver Static Sensitivity (dBm)**: -114 minimum, -116 typical
- **Receiver Dynamic Sensitivity (dBm)**: -105 minimum, -107 typical

### GPS Specifications

- **Simultaneous Satellites**: 12
- **Mode of Operation**: Autonomous or assisted (A-GPS)
- **GPS Antenna**: Supports active antenna (9V, 25mA supply)
- **Autonomous Acquisition Sensitivity**: -143 dBm / -173 dBW
- **Tracking Sensitivity**: -159 dBm / -189 dBW
- **Accuracy**: <1m (99% probable) / <1m (95% probable)
- **TFF (HOT Start - Autonomous)**: <1s
- **TFF (WARM Start - Autonomous)**: <3s
- **TFF (COLD Start - Autonomous)**: <3s
- **Location Protocols**: ETSI Location Information Protocol (LIP), Motorola LRRP

### Voice Services

- **Talkgroups**: 2048 (TMO) & 1024 (DMO)
- **Phone book entries**: 1000 persons, up to 6 numbers per entry (mobile, office etc.), Max 2000 entries
- **Scan lists**: 40 lists of 20 talkgroups
- **Trunked Mode (TMO) Services**
  - **Group call**: Group call
  - **Private call**: Private call
  - **Telephony (PBX, PSTN, MS-ISDN)**: Full Duplex
  - **DGNA**: Up to 2047 groups
  - **Scanning**: Attachment signaling, supports SWMI initiated attachment/detachment
- **Direct Mode (DMO) Services**
  - **Group call**: Group call
  - **Private call**: Private call
  - **Smart emergency**: TMO/DMO to TMO automatic switching options
  - **Hot Mic**: Configurable timers for automatic open mic (talk without PTT)
  - **Location**: Location GPS sent with emergency
  - **Target Address**: Sent to individual or group address (selected or dedicated)
  - **Alarm (status message)**: Emergency Status (or other pre-defined status)

### Data Services

- **Status**: Alias messages
  - Options
  - Can be sent via One-Touch or via menu
  - 200 Entries (short messages), 40 Entries (long messages of up to 1000 characters)
- **Short Data Service (SDS)**
  - **Inbox**: Cellular style TAP predictive text entry
  - **Target Address**: Sent to individual or group address (selected or dedicated)
  - **Voice Call Interaction**: SDS messages can be sent and received during a voice call
  - **Packet Data (PD)**
    - **Multi-slot PD**: Data transmission with up to 4 slots supporting up to 28.8 kbit/s gross
  - **TEDS (capable)**
    - **QAM Channels**: 25 kHz and 50 kHz
    - **QAM modulation/coding modes**: 4-QAM R1/2, 16-QAM R1/2, 64-QAM R1/2, 64-QAM R2/3
  - **WAP**
    - **Integrated WAP browser (including WAP-PUSH)**: Integrated Openwave browser
    - **WAP 1.2.x and WAP 2.0 compatibility for UDP/IP Stack**
    - **AT Multiplexer - 4 Virtual Physical Port (simultaneous PD, SDS, AT commands and Air Tracer SESSIONS)**
    - **VPN**: enables simultaneous PD and SDS sessions
- **Peripheral Equipment Interface (PEI)**
  - **Interface Protocol**: AT Commands - Full Set ETSI Mandatory Compliant
  - **TNP1**: enables simultaneous PD and SDS sessions
- **Terminal Management**
  - **Programmable via Motorola Integrated Terminal Management (ITM) solution**
  - **Over-The-Air Programming (OTAP) Mode Capable**: Background Mode Programming (BMP) capabe - While radio is operational (providing TETRA services) it is being programmed/configured.
  - **Planned features with software upgrade**
### Gateway Services

**DMO/TMO Gateway**
- Group voice calls from DMO to TMO
- Group voice calls from TMO to DMO
- Emergency group call from DMO to TMO
- Emergency group call from TMO to DMO
- Transmission of Gateway Presence Signal
- Automatic detection and management of co-located Gateways
- Call Pre-emption (in either direction)
- SDS messaging from DMO to TMO (including GPS) or from TMO to DMO
- Configurable routing of SDS to console or PEI
- Management of point to point calls and SDS messages whilst operating as a Gateway

### Repeater Services

**DMO Repeater**
- Repeats DMO voice and tone signaling on selected talkgroup
- Repeats SDS and Status messaging on selected talkgroup
- ETSI type 1A DMO Repeater for channel efficient operation
- Transmission of Repeater Presence Signal
- Priority Call
- Emergency Call (Pre-emptive Priority Call)
- E2EE Encrypted DMO traffic
- Monitoring of and participation in calls whilst in Repeater mode
- Configurable Repeater Power Levels

### Interfaces

<table>
<thead>
<tr>
<th>RS232</th>
<th>For PEI (Four Virtual Ports) to run simultaneously Packet Data, AT Commands, SDS, SCOUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>USB 2.0 support for PEI (Two Virtual Ports) via standard Windows drivers to run simultaneously Packet Data and AT Commands)</td>
</tr>
</tbody>
</table>

### Security Features

<table>
<thead>
<tr>
<th>Air Interface Encryption</th>
<th>Algorithms</th>
<th>Security Classes</th>
<th>Authentication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEA1, TEA2, TEA3</td>
<td>Class 1 (Clear), Class 2 (SCK), Class 3 (GCK) (Encryption support on DMO/TMO Gateway and DMO Repeater requires specific software release)</td>
<td>Infrastructure initiated and made mutual by terminal</td>
</tr>
</tbody>
</table>

### Regulatory Compliance

<table>
<thead>
<tr>
<th>Radio (R&amp;TTE Article 3.2)</th>
<th>EN 301 355-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETSI EN 300-394-1</td>
<td></td>
</tr>
<tr>
<td>ETSI EN 300-392-2</td>
<td></td>
</tr>
<tr>
<td>EMC (R&amp;TTE Article 3.1.b)</td>
<td>EN 301 489-1 V1.3.1</td>
</tr>
<tr>
<td></td>
<td>EN 301 489-18 V1.3.1</td>
</tr>
<tr>
<td>Electrical Safety (R&amp;TTE Article 3.1.a)</td>
<td>EN 60950-1 (2001)</td>
</tr>
<tr>
<td></td>
<td>EN/05000:2001 EME</td>
</tr>
<tr>
<td>Environmental</td>
<td>Directive 2002/96/EC WEE</td>
</tr>
<tr>
<td></td>
<td>Directive 2000/53/EC RoHS</td>
</tr>
<tr>
<td>Automotive</td>
<td>E-mark, Automotive EMC Directive 95/94/EC</td>
</tr>
</tbody>
</table>

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For more information please contact your local Motorola Authorised Dealer or Distributor.
MTP3000 SERIES
SAFER, TOUGHER, EASIER TO USE
INTRODUCING MOTOROLA’S NEW TETRA RADIO
MOTOROLA TETRA SOLUTIONS
DESIGNED TO WORK IN THE TOUGHEST, MOST DEMANDING ENVIRONMENTS, DAY IN, DAY OUT.

The MTP3000 Series is continued sign of the evolution of TETRA. This radio is the pinnacle of 15 years of focus on improving user safety, enhancing efficiency and improving communications. We believe the MTP3000 Series will do more than any other radio in helping our customers meet their operation goals and targets.

THE KEY BENEFITS OF THE MTP3000 SERIES

STAY IN TOUCH
Be safer and more effective with greater coverage and in-building performance with the high-sensitivity receiver and Class 3L (1.8W) power.

HEAR AND BE HEARD
Outstanding audio means you can be safe and effective in the most noisy and difficult environments.
Where safety is paramount, these TETRA radios are optimised for excellent audio performance in all types of noisy and demanding situations. Audio through both the speaker and accessories is clearer even at full volume. The Siimport speaker ensures even distribution of sound all around the radio wherever it is worn. Intelligent microphone eliminates the need for audio profiles as it adapts very loud or soft speech for onward transmission through the TETRA network.

With high receiver sensitivity, the MTP3000 Series has the capability for maintaining communications in the most demanding situations at long range, in built up areas and in buildings. Providing higher power will further increase range and in-building performance, and so Motorola has added industry challenging Class 3L (1.8W) power output option.

The MTP3000 Series are fitted with two new connectors to provide excellent corrosion resistance, ruggedness, conductivity and low insertion resistance. The side connector has excellent pull strength. The bottom connector has a self cleaning mechanism to resist dust and dirt, is easy to clean, and is protected inside the radio.

The MTP3000 Series has been made to the highest quality levels and exceeds all 11 categories in the MIL-810 standard. Further, like all Motorola TETRA radios, MTP3000 Series has been designed to pass an Accelerated Life Test simulating over 5 years use; these tests ensure it will withstand tough conditions and provide durability that helps to drive down lifecycle support costs.

The two knob interface will suit users migrating from an analogue radio, or are familiar with 2 control knobs. Also the new side connector is very easy and fast to connect and detach. The wide trans reflective screen displays additional characters and is easy to see in both low light and direct sunlight. Accessory profiles are built into the radios for the wide range of Motorola supplied accessories.

To minimise staff training costs, MTP3000 Series leverages an instantly familiar cellular phone style user interface. It also includes a large colour (or greyscale) display that supports 262,144 vivid colours and large scalable fonts. Usability is further enhanced through a customisable menu and simplified keypad that combine to make device interaction fast and intuitive.

MTP3000 Series also comes with optional colour identification bands around the antenna. This identifies the radio for user groups with different tasks, coverage area, shift, etc.

Robust connectors withstand hard use and dirty environments. IP65 for all weather and water jet protection.

Transition quickly from analogue radios with two control knobs. Navigate quickly through the simple user interface on the clear screen.

Tough and effective range of audio and energy accessories suitable for the same rough use as the radio.
The MTP3000 Series are packed with features which are essential for safe and effective operations, as well as significant improvements in areas such as audio and ruggedness. The user interface is optimised for those making the transition from analogue radios and includes two controls for group and volume.

**MTP3100**, the entry level radio, packing-in all the TETRA essentials.

**MTP3200**, the radio which adds features such as SIM card encryption option, Bluetooth and GPS.

**MTP3250**, the radio for users who require a fully-featured TETRA radio with a full keypad.

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**SAFETY AT THE HEART**

The MTP3000 Series has been designed and tested to enhance the safety of all types of personnel. As well as being built for exceptional reliability and ruggedness, the high power ultra-clear audio means that the message will get through in very noisy situations. The Slimport feature means that the radio speaker can be heard from a wide range of directions whether held in the hand or attached to a vest or belt.

Enhanced receiver sensitivity and DMO repeater functionality means excellent coverage in buildings and over extended areas.

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**YOUR LIFELINE WHEN TIME IS CRITICAL**
Whether chasing a suspect down a busy street or calling maintenance to a bustling metro station, you depend on communications that perform in demanding environments.

That’s why it’s critical to choose accessories designed, tested and certified to work optimally with Motorola TETRA radios. Our comprehensive portfolio of MTP3000 Series accessories delivers on that promise — with improved connectors and new enhancements for exceptional audio.

**STRONGER, SECURE CONNECTIONS**
From the pipeline to the fire line, our MTP3000 Series accessories are so robust and reliable, tough enough for your most action packed days. A newly designed, durable, compact, 8-pin connector ensures the accessory stays attached — whether you’re jumping over barriers or climbing up ladders. With its tightly sealed radio interface and IP65 rating, your accessory can be exposed to water without losing the connection. Yet the connector is so slim, it won’t add bulk to the radio.

**EXCEPTIONAL AUDIO EVERY DAY**
The audio profiles on our MTP3000 Series accessories make hearing clearly almost effortless. They ensure you get the best performance possible by adapting the audio to how the accessory is worn — in the ear, on your shoulder and more. Simply plug in the accessory and select your accessory from the menu to experience exceptional audio. When it comes to high performing accessories at an affordable price, count on Mag One, the only value-line accessories tested and certified by Motorola.

**IMPRES PROVIDES INSTANT IDENTIFICATION**
Plug in an accessory from our IMPRES line — such as the remote speaker microphone (RSM) — and your radio automatically identifies it and loads the correct profile to optimise audio performance. What’s more, our IMPRES large-speaker RSM matches the high-powered speaker on your radio for even better communications in high-noise environments — essential for noisy crowds or heavy traffic.

**TERMINAL SERVICES - ENSURING MAXIMUM PERFORMANCE TO MEET YOUR MISSION CRITICAL REQUIREMENTS**

**SERVICE CENTRE EXCELLENCE:**
We deliver. With our proven capability, you can be sure your equipment is expertly repaired and back in the hands of your users quickly. Using the latest tools and with strict adherence to Motorola engineering procedures, our European Radio Support Centre’s expert technicians diagnose and repair units to original manufacturing specifications.

**TECHNICAL EXPERTISE:**
Get answers to your technical questions, reduce downtime and improve issue resolution times. Experienced technical support engineers work with you to diagnose and resolve hardware and software problems resulting in swift resolution of issues for your end users.

**CUSTOMER SERVICE:**
A single source for support delivered through our new state of the art call centre, available 24x7 to track customer issues and 8x5 for technical support. Ready to assist by telephone, e-mail or fax.

**CERTIFIED SOLUTIONS:**
All our services are fully certified to comply with ISO, ATEX / FM and CENELEC thereby providing the peace of mind that can only come from an experienced and trusted supplier.

**DEFINED SERVICE LEVEL AGREEMENTS (SLAs):**
All Motorola services are offered to committed SLAs including turnaround times.
## Specifications

### Safer

**Superior Audio and Increased Range**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MTP3100</th>
<th>MTP3200</th>
<th>MTP3250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluetooth*</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>GPS*</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Keypad</td>
<td>Simple</td>
<td>Simple</td>
<td>Full</td>
</tr>
</tbody>
</table>

### Tougher

**Durable Connectors and Rugged Design**

- Safer
- Superior Audio and Increased Range
- Tougher
- Durable Connectors and Rugged Design
- Easier
- Intuitive Hardware and Software Features

### Easier

**Intuitive Hardware and Software Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MTP3100</th>
<th>MTP3200</th>
<th>MTP3250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluetooth</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>GPS</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Keypad</td>
<td>Simple</td>
<td>Simple</td>
<td>Full</td>
</tr>
</tbody>
</table>

### General

- **Dimensions** HxWxD mm: 124 x 53 x 33.5 (with standard battery)
- **Weight**: 273g (radio with 1650mAh battery and antenna)
- **Battery Performance (Class 4 and 1650mAh battery)**: Duty Cycle 5/5/90 > 16 Hours; Duty Cycle 5/35/60 > 12 Hours
- **Battery** (Li-Ion 1650mAh and 2150mAh)

### RF Specifications

- **Frequency Bands**: 350-430 MHz
- **Transmitter RF**: Power Class 3L (1.8W) & Class 4 (1W)
- **Receiver Class**: A and B
- **Rx Static Sensitivity**: -114dBm (min); -116dBm (typical)
- **Rx Dynamic Sensitivity**: -105 dBm (min); -107 dBm (typical)

### Environmental Specifications

- **Operating Temperature °C**: -30 to +60
- **Storage Temperature °C**: -40 to +85
- **Humidity ETSI 300 019-1-7 class 7.3E**:
- **Dust and Water Ingress Protection**: IP65 per IEC 60529
- **Shock, drop and vibration ETSI 300 019-1-7 class 7.3E**:
- **MSPD**: Simultaneous operation of Packet Data and Short Data Services over a common Peripheral Equipment Interface (PEI)
- **ITM Fleet Management (Remote Programming)**

### Licenses/Options

- **Efficiency**: Language & Keypad Options
- **Bluetooth**
- **DMO Repeater**
- **RUA/RUI**
- **MSPD**
- **SCCH**
- **RMS**
- **Call Out**
- **WAP push**
- **Safety**: GPS*

### Security Services

- **Enhanced Security - OTAR/DMO SCK**: Authentication (Mutual)
- **Air Interface Encryption Class 1, 2, and 3**
- **SIM Encryption (MTP3200 / MTP3250 only)**
- **Permanent Disable**
- **Temporary Disable**

### Main Data Services

- **MSPD**: SDS Messaging in TMO & DMO
- **AT Commands Full Set of AT Commands (including Voice Control)**
- **Short Data Applications**
- **TNP1 Simultaneous operation of Packet Data and Short Data Services over a common Peripheral Equipment Interface (PEI)**
- **ITM Fleet Management (Remote Programming)**
### LOCATION SERVICES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simultaneous Satellites</td>
<td>12</td>
</tr>
<tr>
<td>GPS antenna integrated into the external radio antenna</td>
<td></td>
</tr>
<tr>
<td>Tracking Sensitivity</td>
<td>-160dBm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>2 meter (50% probable) @ -130dBm</td>
</tr>
<tr>
<td>Protocols</td>
<td>ETSI LIP &amp; Motorola LRRP</td>
</tr>
</tbody>
</table>

### USER INTERFACE

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to use separate volume and talkgroup knobs</td>
<td></td>
</tr>
<tr>
<td>Colour Transreflective Display 132x90 pixel screen with 262,144 vivid colours - viewable in bright sunlight</td>
<td></td>
</tr>
<tr>
<td>Flip screen and large/x-large text &amp; icon options</td>
<td>Backlight</td>
</tr>
<tr>
<td>Screen Saver gif image &amp; text (any user’s selection)</td>
<td></td>
</tr>
<tr>
<td>Universal Time Display</td>
<td></td>
</tr>
<tr>
<td>Multiple Languages</td>
<td></td>
</tr>
<tr>
<td>Keypad Lock</td>
<td></td>
</tr>
<tr>
<td>Talkgroup Management</td>
<td>User friendly, flexible, efficient, fast</td>
</tr>
<tr>
<td>Talkgroups – TMO Folders 256, TMO Unique 2048, TMO Instances 4000</td>
<td>Talkgroups – DMO Folders 128, DMO Groups 1024</td>
</tr>
<tr>
<td>Favourite Folders Up to 3 (to store any favourite talkgroup)</td>
<td>Menu Tailored to user needs</td>
</tr>
<tr>
<td>Menu Shortcuts</td>
<td>Menu Configuration</td>
</tr>
<tr>
<td>Contacts Management Cellular Type (Rapid Search)</td>
<td>Contact List up to 1000 contacts up to 6 numbers per contact, max 2000 numbers</td>
</tr>
<tr>
<td></td>
<td>Multiple Dialling Methods user selects how to dial</td>
</tr>
<tr>
<td></td>
<td>Fast/Flexible Call Response Private Call Response to a Group Call via One Touch Button</td>
</tr>
<tr>
<td></td>
<td>Multiple Ring Tones</td>
</tr>
<tr>
<td></td>
<td>Message Manager Cellular Type (Flexible)</td>
</tr>
<tr>
<td></td>
<td>Text message list 20</td>
</tr>
<tr>
<td></td>
<td>Intelligent Keypad Text Input (MTP3250)</td>
</tr>
<tr>
<td></td>
<td>Status list 400</td>
</tr>
<tr>
<td></td>
<td>Country/Network Code List 100</td>
</tr>
<tr>
<td></td>
<td>Scan lists 40 lists of 20 groups</td>
</tr>
<tr>
<td></td>
<td>User Controls</td>
</tr>
<tr>
<td></td>
<td>Multi-Rotary Knob Volume, List Scroll, and/or Talkgroup Selection</td>
</tr>
<tr>
<td></td>
<td>(The MTP3000 Series have 2 separate knobs)</td>
</tr>
<tr>
<td></td>
<td>One touch Buttons &amp; Keys each button key can be programmed with one of the multiple functions available</td>
</tr>
<tr>
<td></td>
<td>Covert Mode</td>
</tr>
<tr>
<td>Colour Transreflective Display 132x90 pixel screen with 262,144 vivid colours - viewable in bright sunlight</td>
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<td></td>
<td>Covert Mode</td>
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### MAIN VOICE SERVICES

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</thead>
<tbody>
<tr>
<td>Full Duplex TMO Private, PABX, PSTN, Emergency</td>
<td>Individual Emergency Call to PREDEFINED party (half/full duplex)</td>
</tr>
<tr>
<td>Half Duplex TMO Private, Group, Emergency</td>
<td>HST MIC talk without need to PTT (user enabled)</td>
</tr>
<tr>
<td>Half Duplex DMO Private, Group, Emergency</td>
<td>Status Msg sent to dispatch console (user enabled)</td>
</tr>
<tr>
<td>Inter-MNI, Gateway, Repeater</td>
<td>DMO to TMO enter DMO emergency (with/without gateway) or enter TMO emergency</td>
</tr>
<tr>
<td>Emergency Tactical Emergency Group Call to ATTACHED talkgroup</td>
<td>Preemptive Priority Calls</td>
</tr>
<tr>
<td>(tailored by users) Non-Tactical Emergency Group Call to DEDICATED talkgroup</td>
<td>Call Out*</td>
</tr>
<tr>
<td></td>
<td>PTT Double Push</td>
</tr>
<tr>
<td></td>
<td>Adaptive Audio Control</td>
</tr>
</tbody>
</table>

### OTHERS

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Robust and ‘quick connect’ side connector with high-performance matching accessories</td>
<td>SLIM connector Accessories interface</td>
</tr>
<tr>
<td>Robust bottom connector</td>
<td>Identification ring on antenna</td>
</tr>
<tr>
<td>Loud and clear Audio – 2Wrms Audio power (4W peak) through radio and accessories</td>
<td></td>
</tr>
</tbody>
</table>

A full range of matching and high performance accessories are available on the MTP3000 Series Accessory Catalogue by visiting [www.motorolasolutions.com/MTP3000](http://www.motorolasolutions.com/MTP3000)
MTP3000 SERIES
YOUR LIFELINE WHEN TIME IS CRITICAL

For more information on the MTP3000 Series radio, please visit us on the web at:
www.motorolasolutions.com/MTP3000
MTP8000Ex SERIES TETRA ATEX RADIOS

WORK SAFER. WORK SMARTER. WORK ANYWHERE.
The MTP8000Ex Series sets a new standard in TETRA ATEX radios. From their form to their function, these new radios have been carefully engineered to address workers’ needs and offer the ultimate in safe, reliable and efficient communications in hazardous environments.

Meeting the latest ATEX and IECEx standards, this next generation of TETRA ATEX radios represents a significant step forward in improving worker safety, communications and efficiency.
Motorola has more than 20 years of experience in providing intrinsically safe two-way radios. Having shipped more than 100,000 TETRA ATEX radios, we are the leading supplier of TETRA radio communications solutions for use in hazardous environments.

We have used all of this knowledge and experience to develop the MTP8000Ex Series ATEX radios, giving workers the ability to work safer, work smarter and work anywhere with powerful audio, enhanced coverage, extended battery life, greater ruggedness, advanced ergonomics and increased usability.
DESIGNED FOR THE MISSION
The MTP8000Ex Series TETRA ATEX radios have been specifically designed for end-users who need to work in hazardous environments with potentially explosive gases or chemical vapours, flammable liquids or combustible dust.

OIL & GAS
Workers in the Oil & Gas industry are constantly at risk of escaping flammable gases or liquids and they are often required to work in extreme conditions of heat and dust or cold and wet. Good communications are the key to operating effectively in these dangerous conditions and workers rely on ATEX radios to keep them safe.

FIRE & RESCUE
Fire and Rescue teams have long relied on two-way radios to provide effective communications and save lives. But when firefighters respond to a traffic accident involving a petrol tanker or an incident at a petrochemical plant, they need ATEX radios to communicate safely and prevent an incident from becoming an emergency.

MINING
Escaping flammable gases, such as methane, are a major risk in the mining industry. Communication is key to working effectively in such hostile and dangerous conditions and ATEX radios are needed to keep miners safe particularly when explosives are used.

AIRPORTS
Airports are complex facilities where effective and reliable communications are of great importance. But wherever there is a potential exposure to fuel, there is a risk of explosion. Increasingly, ATEX radios are used in areas where workers and on-site fire crews are in close proximity to aviation fuel to keep them safe.

UNCOMPROMISING SAFETY
All design aspects of the MTP8000Ex Series have been optimised to ensure the highest levels of safety, ease of use and ruggedness for users who work in hazardous environments.
MTP8000Ex Series

**WORK SAFER**

**WORK SMARTER**

**WORK ANYWHERE**

**PROTECT YOUR WORKERS AND KEEP THEM SAFE IN THE MOST HAZARDOUS ENVIRONMENTS**

---

**LOUD AND CLEAR AUDIO**
The MTP8000Ex Series has loud and clear audio for use in noisy environments.

**COVERAGE INDICATOR**
For ultimate safety, the radio is fitted with an LED Coverage Indicator at the base of the antenna, clearly showing when coverage is poor.

**LARGE EMERGENCY BUTTON**
The MTP8000Ex Series includes an improved and larger emergency button, making it easier to use even with thick gloves.

---

**ENHANCED COVERAGE**
High receiver sensitivity and high transmit power gives the MTP8000Ex Series greater coverage and enhanced in-building performance.

**BUILT TO BE SAFE**
Built to the latest ATEX and IECEx safety standards, the MTP8000Ex Series radios ensure that workers and firefighters can operate safely in the most hazardous environments.

**BLUETOOTH AUDIO**
A range of wireless accessories can be securely and reliably paired, from headsets and microphones for use in loud environments to large PTT buttons for use with protective clothing, reducing the risk of catching wires.

---

**INDUSTRIAL ACCESSORIES FOR THE MTP8000Ex**

**ACTIVE NOISE CANCELLING RSM**
Communicate in the most demanding PetroChem and Industrial environments. Two PTTs (side and front), High/low volume control, emergency button, 1 programmable button. Supports Peltor helmet comms and 3.5mm discreet listening accessories.

**TACTICAL HEADSETS**
For operations in noisy environments. Active noise cancellation protects hearing while maintaining peripheral listening and face-to-face conversations.

**TWIN CUP HEADSETS**
For operations in very noisy environments. Provides the highest level of hearing protection with two layers of noise attenuation in each ear cup.

**3.5MM ACOUSTIC TUBE**
For in-ear audio, the 3.5mm listen only acoustic tube is secured to the Automatic Noise Cancelling RSM with push, twist and lock connection.

---

*Wired and wireless accessories available*
LOUD AND CLEAR AUDIO
The MTP8000Ex Series is optimised for excellent audio performance in all types of noisy environments. Audio through both the speaker and accessories is clearer, even at full volume, and the user can be heard clearly against the loudest background noise.

ENHANCED COVERAGE
High receiver sensitivity and high transmit power gives the MTP8000Ex Series greater coverage and enhanced in-building performance. For ultimate safety, the radio is fitted with an LED coverage indicator at the base of the antenna, alerting the user when coverage is poor.

RUGGED DESIGN
The MTP8000Ex Series radios are built to work in the toughest and most hazardous environments, in both the cold and wet or the dust and heat, with IP65, IP66 and IP67 ratings.

MTP8000Ex SERIES
KEY FEATURES

INCREASE EFFICIENCY AND MAINTAIN SAFETY WITH FEATURES DESIGNED WITH THE WORKER IN MIND

WORK SMARTER

INTUITIVE USER INTERFACE
For simplicity, the interface makes use of icons and the menus can be configured to only show the options needed for particular groups of users.

TOP DISPLAY
The display panel on the top of the radio makes it easy to see emergency notifications, battery level, volume level and talkgroup when the radio is worn on the belt.

BLUETOOTH DATA
Smart Devices and tablet PCs can also be securely connected to the radios using Bluetooth for data collection or other applications, such as work scheduling.

ADVANCED ERGONOMICS
The T-bar grip makes the radio harder to drop and easier to hold, even for long periods. The exaggerated control knob to select volume and talkgroup, textured PTT button and tactile keypad make it easier to use.

NAMEPLATE
The use of stick-on labels or external markers to identify the radio can compromise the ATEX certification. Now, the MTP8000Ex Series radios can be easily identified without causing any risk to user safety.

FIRE ACCESSORIES FOR THE MTP8000Ex

Dräger FPS COM PLUS
Includes integrated microphone and ear piece. Plugs directly into the Active Noise Cancelling RSM Nexus socket for optimised transmit and receive audio.

SAVOX HC-1
Helmet communications with HC-1 bone conductive microphone and ear piece.

3.5MM ACOUSTIC TUBE
For in-ear audio, the 3.5mm listen only acoustic tube is secured to the Automatic Noise Cancelling RSM with push, twist and lock connection.
INTEGRATED BLUETOOTH
Secure Bluetooth Wireless technology is integrated into the MTP8000Ex Series, ensuring that a range of wireless accessories and collaborative devices can be securely and reliably paired with the radios.

ADVANCED ERGONOMICS
The MTP8000Ex Series has been engineered to redefine usability, from the T-Bar profile to the exaggerated control knob, tactile keypad, enlarged emergency button and textured PTT button.

EXTENDED BATTERY LIFE
With an extended battery life in excess of 16 hours, workers can be confident that the MTP8000Ex Series radios will be ready for a longer shift in the event of emergencies or unplanned situations.

EASIER TO USE
With intuitive user interface, innovative nameplate, large main display and the secondary top display making it easier to see emergency notifications, talk group status or battery condition, the MTP8000Ex Series is designed to be easier to use.

ENSURE SUPPORT FOR YOUR WORKERS WHEREVER THEY ARE AND WHATEVER THE CHALLENGE

ENHANCED COVERAGE
With high receiver sensitivity and high transmission power, urgent messages will be heard by the worker in locations where other radios would be out of coverage.

LOUD AND CLEAR AUDIO
Automatic Gain Control allows workers to hear and be heard in any situation without the worry of loud background noise or interference.

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ADVANCED ERGONOMICS
The radios are designed with advanced ergonomics to be used easily by workers in protective clothing and heavy gloves.

RUGGED DESIGN
Built to the latest ATEX and IECEx safety standards for use in the toughest and most hazardous environments with IP65, IP66 and IP67 ratings.

BLUETOOTH SENSORS
Bluetooth can also be used to pair the radios with bio-monitors or gas sensors to automatically alert control and the workers to dangerous conditions.

STANDARD ACCESSORIES FOR THE MTP8000Ex

SINGLE UNIT CHARGERS
Designed for quick and easy charging and to maximise battery life performance.

BELT CLIP
Securely attaches the radio to a belt of up to 2.5 inches wide.

CARRY CASES
Protects the radio from being knocked, dropped or mislaid. Can be worn on a belt or shoulder strap for extra convenience and safety.

VEHICLE CHARGER
Designed for permanent installation in a vehicle. Charges and optimises battery life performance on the go.

LOUD AND CLEAR AUDIO
Automatic Gain Control allows workers to hear and be heard in any situation without the worry of loud background noise or interference.

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MTP8000Ex Series
REDEFINING THE ATEX RADIO

- Large Emergency Button
- Exaggerated Control Knob
- Textured PTT
- Rugged Design
- Top Display
- Large Front Display
- SLIMPORT Audio
- Tactile Keypad
- Full and Limited Keypad
- Extended Battery Life
- Nameplate
- Best-in-Class Coverage
- LED Coverage Indicator
- Large Emergency Button
- T-Bar Grip
- Textured PTT
- Rugged Design
- Top Display
- Large Front Display
- SLIMPORT Audio
- Tactile Keypad
- Full and Limited Keypad
- Extended Battery Life
- Nameplate
- Best-in-Class Coverage
- LED Coverage Indicator
WORK SMARTER WITH INTEGRATED BLUETOOTH

The MTP8000Ex Series radios have integrated Bluetooth wireless technology, providing a secure link to devices, which can be matched to the specific needs of the worker. These collaborative solutions combine devices and applications to improve the safety, effectiveness and efficiency of your workers.

**WIRELESS ACCESSORIES**
Fast wireless Push-To-Talk buttons can be used when protective clothing and gloves make it difficult to reach the radio. Wireless headsets and mics can be worn under protective clothing so workers can communicate clearly in hazardous environments.

**DATA COLLABORATION**
A mobile computing device or tablet PC can be connected to the radio and used to collect information, such as meter readings, sending the data back to control through the radio.

**HEART RATE MONITOR**
A heart rate monitor can be connected to the radio and used to detect if the worker or firefighter is at risk of heart problems or failure during strenuous activity or has collapsed in a hazardous environment.

**GAS SENSORS**
Body-worn gas sensors can be linked to the radio to automatically alert control and the worker to build-up of dangerous gases. If one sensor picks up a gas leak the other workers and control can be warned immediately.

**LOCATION SENSORS**
Bluetooth beacons across the facility or in high-value buildings can be used to detect the presence of the radio and track the location of a worker during a shift or a firefighter during an incident.
GENERAL

Battery performance
- Duty cycle 5/5/90 > 16 hours
- Duty cycle 5/35/60 > 12 hours

Loud and clear audio
- >1.2W
- Integrated audio howling suppression

RF SPECIFICATIONS

Frequency bands
- 350-470 MHz, 800 MHz
Transmitter RF
- Power class 3, class 4
Receiver class
- A and B
Rx static sensitivity
- -116dBm (min); -118dBm (typical)
Rx dynamic sensitivity
- -107 dBm (min); -109 dBm (typical)

ENVIRONMENTAL SPECIFICATIONS

Operating temperature
- °C -30 to +55

Humidity
- ETS 300-019-1-7 Class 7.3E, MIL STD 810 D, E, F, G

Dust & water ingress protection
- IP64, IP65, IP66 & IP67 per IEC-60079-0:2011 & IEC-60529

Shock, drop and vibration
- ETS 300-019-1-7 class 3M, MIL-STD 810 D/E/F/G

MAIN VOICE SERVICES

Full duplex TMO private, PABX, PSTN, emergency
Half duplex TMO private, group, emergency
Half duplex DMO private, group, emergency
Inter-MNI, gateway, repeater
PTT double push
Adaptive audio control

EMERGENCY CALL MANAGEMENT

Tactical emergency group call to ATTACHED talkgroup
Non-tactical emergency group call to UNDEFINED talkgroup
Individual emergency call to PREFERRED party (half/full duplex)
HDT/MC emergency - hands free in moments that matter
Emergency status message sent to dispatch console

Preemptive priority calls

DMO REPEATER SERVICES

DMO repeater type 1A for efficient single channel operation
DMO presence support for effective channel management voice, status & SDS repeated

Emergency calls

BLUETOOTH AUDIO & DATA SERVICES

Bluetooth versions supported
- Bluetooth 2.1 +EDR, Bluetooth 4.0, Bluetooth Smart (BTLE)

Bluetooth security
- Bluetooth 2.1 introduces mandatory encryption with secure simple pairing (SSP), easier pairing and preventing sniffing / hacking
- Bluetooth 4.0 supports Security Manager (SM) services with AES encryption

Bluetooth audio
- Headset profile

Bluetooth data services
- Serial Port Profile, Dial Up Networking Profile, Discovery mode, Generic Access Profile, Object Push Profile, Generic Attributes Profile (GATT), Heart Rate Profile, Battery Service Profile, Devices Info Profile.
**LOCATION SERVICES**
- Constellations supported: GPS, BeiDou, Glonass
- Simultaneous satellites: 12
- Tracking sensitivity: -163 dBm
- Accuracy: < 5 metre (95% probable) -163 dBm
- Protocols: ETSI LIP & Motorola LRRP

**USABILITY**
- Language and keypad options: Full and Simplified Keypad, Multiple keypad languages supported
- Enhanced Tbar grip for confident handling
- Unique nameplate for simple identification of radio
- Large 360° signal / status indicator for high visibility
- Keypad lock

**CUSTOMISABLE, USER FRIENDLY MENUS**
- Menu shortcuts - user customisable
- Menu editor, simplify to user needs

**DISPLAY**
- Dual displays: large front mounted display with scalable fonts for readability, top mounted display for easy interaction when worn on belt
- Colour Transreflective Front Display, 240x320 pixel screen with 262,144 vivid colours - viewable in bright sunlight
- Colour Transreflective Top Display, 200x112 pixel screen with 262,144 vivid colours - viewable in bright sunlight
- Flip screen, large x-large text and icon options (front display only)
- Screen Saver gif image and text (any user’s selection)
- Configurable smart backlight to optimise power use
- Universal time display
- Multiple display languages, user selectable

**TALKGROUP & CALL MANAGEMENT - USER FRIENDLY, FLEXIBLE, EFFICIENT, FAST**
- Talkgroup capacity: TMO Talkgroups up to 10,000
  - DMO Talkgroups up to 2,000
- Folder capacity: TMO Folders - up to 1,500, each capable of holding up to 2,048 TMO Talkgroups
  - DMO Folders - up to 1,28, each capable of holding up to 1,024 DMO Talkgroups
- Favourite folders - Up to 3
- Country/network code list - up to 100
- Scan lists: 40 lists of up to 20 groups
- Dialling direct, scroll, speed, one touch button/key
- AlphaNumeric search, call history redial

**CONTACT MANAGEMENT - FAMILIAR CELLULAR STYLE INTERFACE FOR EASE OF USE**
- Up to 1000 contacts with 6 numbers per contact (max 2000 unique numbers)
- Multiple dialling methods to support multiple use cases
- Fast/flexible call setup/answer
- Set up a private call response to a group call via one touch button
- Multiple ring tones

**TEXT & STATUS MESSAGING - FAMILIAR CELLULAR STYLE INTERFACE FOR EASE OF USE**
- Text message list: 20 message In/Out box
  - Intelligent keyboard text input (model specific)
- Status list: up to 400 pre-defined messages

**USER SAFETY & WORKGROUP MANAGEMENT**
- Call out

**SECURITY OPTIONS**
- Enhanced security - OTAV/DMO SCX
- Authentication (mutual)
- Air interface encryption (ETSI / SPFS, TEA algorithms)
- Security class 1, 2, 3 and 3G support
- End to end encryption: Motorola CRYPTO micro hardware module, IPS 140-2 level 3 validated
- BOS smart card support
- Permanent disable (ETSI, V2-customer restore)
- Temporary disable (stand)

**DATA & MESSAGING SERVICES**
- Single and multi slot packet data service
- Secondary control channel
- Radio messaging system (RMS)
- WAP browser / WAP push
- SMS messaging in TMO and DMO, incl. concatenated messaging
- ETSI and enhanced AT commands (including voice control)
- Short data applications
- TNP1 - Support simultaneous packet data and short data services over PE
- iTM fleet management (remote programming)

**ACCESSORIES**
- Robust side connector with high-performance matching accessories
  - Team ID antenna rings: efficient operations

**Antenna**
- Whip 129mm (50-470MHz)
- Stubby 80mm (80-470MHz)
- Stubby 80mm (80-470MHz)
- Active Remote Speaker Microphone (RSM) with volume control and emergency button

**Audio - Wired**
- Active Noise Cancelling RSM with Low Push-To-Talk with Nexus jack
  - Compatible with Savox HC1 headset RMN5120A
  - Peter headsets distributed by MotoOne and MotoOne 3.5mm
  - Receive only voice tube PNM7118A
  - Dräger smoke mask

**Audio - Wireless**
- Any 3rd party ATEX Bluetooth wireless technology headset
  - Supporting Fast PT and Headset Profile
  - ATEX Belt clip 2.5 inch
  - Shoulder wearing device
  - All compatible Peter Jones Klick Fast decks and belt loops
  - 2.5" or 3" Swivel belt loop
  - Hard Leather Case with 2.5" or 3" Belt Loop for simple and full keypad models
  - ATEX Small PTT nexus Adapter with selection of Heavy Duty Headsets, Twin Cup Heavy Duty Headset and Tactical Heavy Duty Headset.

**Carry Solutions - for shoulder and belt worn radio**
- Savox ATEX IECEx C-0440 Large PTT. For use with the following Savox headsets: Savox HC1 Headset ATEX, Savox HC2 dual headset ATEX

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**Intrinsic Safety (Zone 21/22)**
- Conductive Dust (Dust Group)
- Equipment Protection Level (Zone 21/22)
- Ambient Temperature Range
- Dust & Water Ingress Protection

**MINING**
- Dust & Water Ingress Protection
For more information on the MTP8000Ex Series TETRA ATEX radios, please visit www.motorolasolutions.com/MTP8000Ex