

DATA COMMUNICATIONS

| | | |
|--------------------------------------|--|--|
| Status | Alias messages | 100 |
| | options | sent via one-touch, or via menu |
| Short Data Service (SDS) | Inbox | 20 messages |
| | 100 predefined and user defined messages | |
| | iTAP predictive text entry | |
| | Target Address | Sent to individual or group address (selected or dedicated) |
| Packet Data | Single Slot | 7.2 kbps gross |
| | Multi Slot | Up to 28.8kbps gross |
| WAP* (with software upgrade) | Integrated WAP* browser | Openwave WAP* Mobile Browser |
| | compatibility | WAP* 1.2.x compatible and WAP* 2.0 compatible for UDP/IP stack |
| Peripheral Equipment Interface (PEI) | Interface Protocol | AT Commands |
| | TNP1* ; enables simultaneous PD & SDS sessions | |

INTERFACES

| | | |
|-----------------------------------|--|---|
| RS232 | For PEI | |
| USB | Rapid programming & configuration supported via USB. USB Host capability for future use | |
| Rugged accessory connector (GCAI) | GCAI – Motorola accessory and ancillary interface for connection of accessories, data devices and programming. | |
| General Purpose Input/Outputs | Digital I/Os* | 7 (4 on remote and motorcycle control head, 3 on transceiver) |
| | Analog input | 4 (1 on remote and motorcycle control head, with 4 levels) |

SECURITY FEATURES

| | | |
|--------------------------|--|--|
| Air Interface Encryption | Algorithms | TEA1, TEA2, TEA3 |
| | Security Classes | Class1 (clear), Class2 (SCK), Class3 (DCK and CCK) |
| | Authentication | Infrastructure initiated and made mutual by terminal |
| Provisioning | Secure provisioning tool (key variable loader KVL) | |
| User Access Control | PIN /PUK code access | |
| Data | Packet data user authentication | |
| End to end encryption | Enhanced E2E encryption with OTAR supported through optional hardware module, with full Tamper Protection. | |

REGULATORY COMPLIANCE

| | | |
|---|----------------------------|-----|
| Radio (R&TTE Article 3.2) | EN 303 035-1 | |
| | EN 303 035-2 | |
| | ETSI EN 300-394-1 | |
| | ETSI EN 300-392-2 | |
| EMC (R&TTE Article 3.1.b) | EN 301 489-1 V1.3.1 | |
| | EN 301 489-18 V1.3.1 | |
| Electrical Safety (R&TTE Article 3.1.a) | EN 60950-1 (2001) | |
| | EN50360:2001 | EME |
| Environmental | Directive 2002/96/EC WEE | |
| | Directive e2002/95/EC RoHS | |

* Planned features or developments, please contact Motorola for information on availability and upgrade requirements



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MTM800E/SPEC-ENG(02/07)

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SPECIFICATION SHEET



Key Benefits Include

High resolution VGA colour display

- Wide viewing angle and readable in most light conditions
- Ideal for displaying high resolution pictures (maps, photos and other images)

Data application

- Multi-slot packet data provides real-time access to databases

Accessory portfolio

- Best in class audio, rugged connector

Comprehensive, flexible installation options

- Address the challenging environment for installation in modern vehicles
- Fully DIN-A compatible available in Dash, Desk, Remote Head or Motorcycle model to fit almost any requirement

Common user interface

- With portable terminals (MTH800 / MTP850), simplifying user training

Access to mobile applications

- Remote access to user databases through optional integrated WAP* browser and Multi Slot Packet Data

New accessory interface

- Enabling enhanced audio and data connectivity such as USB



Seamless access to voice and data – when and where it's needed

Motorola's Enhanced MTM800 is the latest MOTOROLA TETRA mobile designed for use by professional organisations where it is essential for mobile radios to be rugged, flexible and provide high quality voice communications and fast access to mobile applications. By delivering fully integrated voice and data services it ensures users have access to up to date intelligence, enabling them to make truly informed decisions.

MTM800 Enhanced

TETRA Mobile radio

Specifications

MODELS (380-430MHZ)*1

| | | |
|--------------------------|--------------|---|
| Dash | M80PCS6TZ5AN | Compact radio, for vehicle installation. Compatible for installation in DIN slot |
| Desk | M80PCS6TZ4AN | Compact radio, for use in the office. Optional range of accessories such as desk tray with integrated loudspeaker |
| Remote | M80PCS6TZ6AN | Radio with remote mount control head capability. Range of installation options enable use in cars, vans and other vehicles. |
| Motorcycle | M80PCS6TZ2AN | Environmentally enhanced radio meeting IP67 specification. Suitable for demanding environments such as motorcycle, fire appliance and marine installations. |
| Expansion head "Databox" | M80PCC6TZ5AN | Radio without a control head, for data applications, or 3rd party development |

*1 The fourth character of the model number describes the frequency band of the model. Current frequency designators are :
N : 350 - 390 MHz P : 380 - 430 MHz R : 410 - 470 MHz U : 806 - 870 MHz

Product Specifications

PHYSICAL

| | | |
|---------------------------|---|---|
| Dimensions (H x W x D) mm | 60x185x175 60x185x31 49x170x155 60x185x39 60x185x39 | Dash and Desk models (radio + control head) Standard control head only Radio chassis only Remote control head Motorcycle control head |
| Weight (typ) kg | 1.5 | Dash model, radio & control head |

USER INTERFACE & DISPLAY

| | | |
|--------------------------|---|---|
| Display | Diagonal dimension Type Backlight Options Font size | 2,8" VGA - 640 x 480 pixels Transflective TFT , 65K colours variable backlight, user configurable Wallpaper and Privacy screen saver Standard & Zoom mode (90 pixels, 4.5mm high) characters |
| Buttons & Keypad | Numeric International keypad versions Function keys Navigation Emergency Shortcuts | Integral backlit numeric keypad of 12 keys, with keypad lock option Roman, Arabic, Cyrillic, Chinese, Korean, Bopomofo characters 3 programmable function keys 4 way navigation key, menu and soft keys Emergency button with backlight User configurable shortcuts to menus and common features using "One-Touch" feature |
| Rotary | Dual function | Talkgroup and volume change with lock option |
| Indication | LED Tones | 3 colours LED Configurable notification tones |
| User Interface Languages | Standard Options User defined | English, French, German, Spanish, Dutch, Swedish, Norwegian, Russian, Greek, Arabic, Chinese traditional & simplified, Korean. User programmable, using ISO 8859-1 character |

ENVIRONMENTAL SPECIFICATIONS

| | |
|----------------------------|--|
| Operating Temperature (°C) | -30 to +60 |
| Storage Temperature (°C) | -40 to +85 |
| Humidity | ETS 300 019-1-5 class 5.1 and 5.2 EIA/TIA 603 (95%) |
| Dust and Water | IP54 (cat.2) Dash/desk/remote IP67 (cat.2) Motorcycle |
| Shock, drop and vibration | ETS 300 019-1-5 class 5M2 and 5M3 MIL 810 C/D/E/F |

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ELECTRICAL SPECIFICATIONS

| | | |
|------------------------------|---|----------------------------------|
| Voltage Range | 10.8 to 15.6 V DC | |
| Current consumption (A, typ) | Idle / RX / TX Multi Slot PD (4 slots) using USB host | 0.6 / 1 / 1.3 3A Adds 0.5A |

RF SPECIFICATIONS

| | | | | |
|-------------------------------------|----------------------------|-----------|-----------|-----------|
| Frequency Bands (MHz) | 350 – 390 | 380 – 430 | 410 – 470 | 806 – 870 |
| Transmit Band (MHz) | 350 – 390 | 380 – 430 | 410 – 470 | 806 – 825 |
| Receive Band (MHz) | 350 – 390 | 380 – 430 | 410 – 470 | 851 – 870 |
| DMO Band (MHz) | 350 – 390 | 380 – 430 | 410 – 470 | 851 – 870 |
| Transmit / receive Separation (MHz) | 10 | 10 | 10 | 45 |
| Switching Bandwidth (TMO) (MHz) | 40 | 50 | 60 | 19 |
| Switching Bandwidth (DMO) (MHz) | 40 | 50 | 60 | 19 |
| RF Channel Bandwidth (kHz) | 25 (all bands) | | | |
| Transmitter RF Power | 3W, Class 3 (all bands) | | | |
| RF Power Control | 4 Steps of 5 dB | | | |
| RF Power Level Accuracy | +/- db 2 | | | |
| Receiver Class | A & B | | | |
| Receiver Static Sensitivity (dBm) | -112 minimum, -114 typical | | | |
| Receiver Dynamic Sensitivity (dBm) | -103 minimum, -105 typical | | | |

GPS SPECIFICATIONS

| | |
|-------------------------|--|
| Simultaneous Satellites | 12 |
| Mode of operation | Autonomous or assisted (A-GPS) |
| GPS antenna | Supports active antenna (5V, 25mA supply) via FME male connector |
| GPS Sensitivity | -152 dbm / -182dbW |
| Accuracy | 5 meter (50% probable) 10 meter (95% probable) |
| 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 | |
| Trunk Mode (TMO) | Group call | Late entry, TMO/DMO mapping, announcement calls, priority calls, Site Wide Call |
| | Private call | Half and full duplex. Flexible dialling by list scroll, short number dial, direct entry, alphabetical search, last number called. Busy user pre-emption |
| | Telephony | Full duplex, DTMF over dial, Busy user pre-emption. |
| | DGNA | up to 2047 groups |
| | Scanning | attachment signalling, supports SwMI initiated attachment/detachment |
| Direct Mode (DMO) | Group call | late entry, TMO/DMO mapping, |
| | Private call | |
| | Compatibility | Gateway & repeater |
| Emergency | Smart emergency | TMO / DMO / DMO to TMO automatic switching options |
| | Hot Mic | Configurable timers for automatic open mic |
| | Location | Location (GPS) sent with emergency |
| | Target Address | Sent to individual or group address (selected or dedicated) |
| | Alarm | Emergency status |