## Hytera
### Respond & Achieve

# MT680
## TETRA Mobile Terminal

10W RF output power, easy operation, flexible installation, front panel compliant with IP67, and built-in powerful speaker; Hytera TETRA mobile radio offers you real-time communications and dispatching for mission critical.

www.hytera.com

# MT680

## Highlights

### Rugged, Durable Design and Easy Operation

MT680 rugged design is enhanced with a large 260K color TFT LCD enabling the access of pertinent information with ease, even under bright sunlight. User-friendly interface, keypad entry, and powerful (4W) speaker provides excellent operation and communication experience.

### Exceptional Quality and Flexible Installation

MT680 flexibility allows for virtually any install location. You may integrate the front panel with the main unit, or install it separately at a place where you can easily access operation controls. The optional front panel is IP67 compliant, capable of delivering you exceptional performance in extreme conditions.

### Versatile Services and Functions

MT680 supports all TETRA voice and data services. With its built-in GPS feature, information about your location will no longer be an issue. Optional encryption feature will bring you more benefits. The expansion port is another advantage, enabling you to customize your radios feature.

### Instant and Seamless Communication

High transmit power (10W) enables you to reach team members long distances. MT680 enables quick access to TETRA networks and roaming services. Additionally, MT680 provides powerful interoperability with base stations and terminals of different manufacturers.

# Features

## Operation Mode

- Trunking Mode Operation (TMO): communications over TETRA network (semiduplex and full duplex mode)
- Direct Mode Operation (DMO): direct communications between terminals without network intervention (semiduplex mode)

## Voice Services

### Group Call
- Standard Group Call
- Priority Group Call
- Emergency Group Call
- Broadcast Call
- Late Entry
- Talking Party Identification
- DGNA Service
- Group Call Scan
- Talk Group Management

### Individual call
- Standard Half Duplex Individual Call
- Standard Full Duplex Individual Call (TMO)
- Priority Individual Call
- Emergency Individual Call
- Calling Identification
- Pre-emption Priority Call

### Telephone Call (PSTN/PABX)
- Full Duplex Telephone Call
- DTMF
- Calling Identification
- Pre-emption Priority Call

## Security Services

- Authentication
- Air Interface Encryption  TEA 1, TEA 3,  TEA 4
- E2EE (End-to-End Encryption) Security Services
  -E2EE Encryption Module
  -Multiple Algorithm Support
- PIN/PUK Code Access
- Security Class 1, 2, 3
- Ambient Listening
- Discreet Listening
- Stun/Kill
- Configure Information Protection

## Advanced Features

- Provides Java Application Platform
- WAP Browser*
- Over The Air Programming (OTAP)*
- GPIO Program*
- Circuit Mode Data*

## User Safety

- Emergency Button
- Keypad Lock
- Out of Network Alarm
- Multimode GPS Application
- Low Battery Alarm
- Emergence Call Red Screen

## Data / Message Services

- Short Data Service (SDS) - Type1, Type2, Type3, Type4, TL Data
- Status Message
- Packet Data Service (PEI)
- One Button-trigger Status Massage
- Long SDS Receiving
- Further Developing Interface Reserved
- At Command (PEI)

## Global Positioning Service

- Built-in and Fully Integrated GPS
- Position Information Transmission during Emergency Call
- Time Synchronization and Calibration
- Multimode GPS Application (time trigger, distance trigger, time & distance trigger)
- Remote Enable/Disable
- Support Lip Protocol
- Position Information Display

## User Interface Features

- 16 programmable key for quick access to function
- Multi-function Talk Group Selector and Volume Control Knob
- 4-way Navigation Keys
- Dedicated Emergency Button
- Call Log: missed/received/dialed lists
- Flexible Dialing (list scroll, direct dial, alphabetic search, last number redial)
- External Palm Microphone
- Adjustable Display Contrast

- 11 Languages (English, Simplified Chinese, Korean, Russian, Spanish, German, French, Farsi, Catalan, Malay, Arabic etc.)
- Selectable Profiles
- GPS Location Service
  -Built-in high sensitivity GPS
  -Full programmable position update triggers
  -Position information transmission during Emergency Alarm
  -Time Synchronization and Calibration
  -Identification of caller's position and distance

* Realized in Version 6.0



Volume and channel dual-function knob

260k color high resolution transflective TFT LCD

**260k** COLOR

Support split installation

Large size keys pad, easy-to-operation

**IP 67**

Optional front panel IP67 water and dust resistance

Emergency button

*The front panel in compliant with IP67 when installed separately.

# Specifications

| | | |
|---|---|---|
| Frequency Bands | | 350-400MHz/380-430MHz 410-470MHz/806-870MHz |
| **Dimensions (HxWxD)** | Machine | 70 x 184 x 201mm |
| | Front Panel | 70 x 184 x 82mm |
| | Remote Machine | 70 x 184 x 177.6mm |
| | Base Station | 174.3 x 230 x 321.3mm |
| **Weight** | Machine | 1900g |
| | Front Panel | 395g |
| | Remote Machine | 1655g |
| | Base Station | 6356g |
| **Operating Voltage** | Machine & Remote Machine | 10.8V-15.6V (Typical values 13.2V) |
| | Base Station | AC:13.2V 10.8V-15.6V) DC:100-240Vac/50-60Hz |

*General*

| | |
|---|---|
| Operating Temperature | -25 ～ +65 |
| Storage Temperature | -40 ～ +85 |
| Humidity | ETS 300 019 (95%) |
| Water and Dust Protection | IP54 (main unit) IP67 (front panel) IEC60529 or GB-4208-93 |
| Drop, Shock & Vibration | MIL-STD- 810C/D/E/ F/G |

*Environmental*

| | |
|---|---|
| Sensitivity | -146dBm acquisition sensitivity |
| | -162dBm tracking sensitivity |
| Accuracy | 2.5m CEP |
| Cold Start (Time to First Fix) | 35s |
| Hot Start (Time to First Fix) | 1s |

*GPS*

| Item | Low memory machine | High memory machine |
|---|---|---|
| Talk Groups - TMO | 2048 | 3000 |
| Talk Groups - DMO | 1024 | 2000 |
| Phonebook | 1000 | 1000 |
| Missed Calls | 20 | 20 |
| Received Calls | 20 | 20 |
| Dialed Calls | 20 | 20 |
| Inbox | 50 | 400 |
| Outbox | 20 | 50 |
| Drafts | 10 | 50 |
| Drafts- TMO | 61 | 61 |
| Folder- TMO | 64×200 (200 groups in each list) | 200×200 (200 groups in each list) |
| Folder- DMO | 32×200 (200 groups in each list) | 50×200 (200 groups in each list) |

| | |
|---|---|
| RF Channel Bandwidth | 25KHz |
| RF Power Output | 10W |
| RF Power Level Accuracy | ± 2dB |
| Receiver Class | ETSI EN 392-2/396-2 Class A & B |
| RX Static Sensitivity | -112dBm (typical -116dBm) |
| RX Dynamic Sensitivity | -103dBm (typical -105dBm) |
| Maximum Audio Power Output | 4W (internal) 10W (external) |

*RF Specifications*

All specifications are subject to change without notice due to continuous development.

# Standard Accessories


Palm Microphone (IP54) SM16A1


Tube Fuse POA33


Mounting Bracket BRK11


Power Cord PWC10

# Optional Accessories


Water proof Palm Microphone(IP67) SM16A2


External Speaker SM09D1


DesktopMicrophone SM10A1


Foot Switch POA44


Antenna


GPS Antenna GPS04


Power Supply for Base Station PS16002


External Power Supply (300W, backup battery applicable) PS22002


Programming Cable (USB Port)(RoHS) PC35


Data Transmission Cable (RoHS) PC39


IP54 Remote Control Kit (Without control head) RCC08 (3m cable) RCC09 (6m cable) RCC10 (15m cable)


IP67 Remote Control Kit (With control head) RCC11 (3m cable) RCC12 (6m cable) RCC13 (15m cable)

Pictures above are for reference only and may vary from actual products.

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