



# 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.





# 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

## 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 Message
- ▶ 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)\*
- ▶ 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

\* Multi-language is available on request.



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

## Specifications

General	Frequency Bands	350-400MHz/380-430MHz 410-470MHz/806-870MHz
	Dimensions (HxWxD)	70 x 184 x 201mm
	Weight	1900g
	Operating Voltage	10.8V-15.6V (Typical values 13.2V)
	RF Channel Bandwidth	25KHz
RF Specifications	RF Power Output	10W
	RF Power Level Accuracy	± 2dB
	Receiver Class	ETSI EN 392-2/396-2 Class A
	RX Static Sensitivity	-112dBm (typical -116dBm)
	RX Dynamic Sensitivity	-103dBm (typical -105dBm)
GPS	Maximum Audio Power Output	4W (internal) 10W (external)
	Sensitivity	-138dBm acquisition sensitivity -154dBm tracking sensitivity
	Accuracy	10m
	Cold Start (Time to First Fix)	< 50s
	Hot Start (Time to First Fix)	< 10s

User Interface	LCD Color Display	2.8inch, 320*240pixels, 260K colors
	Talk Groups - TMO	2048
	Talk Groups - DMO	1024
	Phonebook	512
	Missed Calls	20
	Received Calls	20
	Dialed Calls	20
	Inbox	50
	Outbox	20
	Drafts	10
Environmental	Scan Lists	64 (200 groups in each list)
	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

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

## Accessories



Palm Microphone  
SM16A1



Palm Microphone  
Hanger



Screws for Palm  
Microphone Hanger



Power Cord  
PWC10



Tube Fuse  
POA33



Mounting Bracket  
BRK11



Desktop Microphone  
SM10A1



External Speaker  
SM09D1



Programming Cable  
(USB to Serial Port)  
PC35



Antenna



GPS Antenna  
GPS03



Data Transmission Cable  
PC39



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

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



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