



MT680 Plus

TETRA Mobile Terminal

MT680 Plus(B) / MT680 Plus(E) / MT680 Plus(S)

Multiple hardware options including basic version, executive version and specialized version.

Distinguished by built-in 4W powerful speaker, remote mount panel IP67 compliance, 10W RF power output, clear digital voice, built-in BT and GPS positioning, the TETRA mobile terminal MT680 Plus will enrich your communication experiences.





MT680 Plus

Highlights

Reliable Through Design

Mt680 Plus is designed to comply with **ETSI TETRA Standard, MIL-STD- 810G, IP67 Dust & Water Protection (remote mount panel)** and Hytera ALT Test simulating over years usage. These tests ensure MT680 Plus stand up to the toughest conditions and environment.

High RF Output Power

MT680 Plus boasts a **10 Watt transmit power**, effectively enlarging the workable coverage, including basements and extending coverage indoors. The radio also supports automatic RF power control with 5dB per step, according to the signal strength.

Exceptional Audio

A **newly added noise cancelling solution** gives MT680 Plus audio quality with unprecedented clarity. Voice can be broadcasted clearly even in very noisy environment to assure the key message is received accurately. Hands free duplex call release hands operation and brings true convenience. **Powerful(4W) internal speaker**, decrease the workload of installing an additional external speaker.

Comprehensive Security Protection

Support authentication, AIE with full 4 algorithms TEA1,TEA2,TEA3,TEA4 and E2EE, MT680 Plus brings customer comprehensive security protection.

Multi-option Location Service

MT680 Plus support **GPS, Glonass and Beidou location**.Multi-option system location service lets MT680 Plus be used globally.

Easy Operation

MT680 Plus employs a 2-in-1 large knob to adjust the channel and volume quickly. Large 260K color TFT LCD enables the access of pertinent information with ease, even under bright sunlight.



Gateway



Repeater
type 1A



Built-in
BT R4.0



Handsfree Call



DMO full band call:
806-870MHz

MT680 Plus

Ensure efficient critical communication

Multi-option location service

Support GPS, Glonass and Beidou location.

Large size color display

Equipped with large-size TFT LCD clear display delivers you favorable accessibility even under strong sunlight.

Built-in powerful speaker

Built-in 4W powerful speaker assures the clear and loud voice even without the external speaker.

2-in-1 Knob

2-in-1 large knob makes channel switch and volume adjustment quick.

Security protection

Support authentication, E2EE and AIE with full 4 algorithms TEA1, TEA2, TEA3, TEA4.

Dust proof and Waterproof

Remote mount panel is IP67 protection guarantees usage in full of dust environment or exposure to wet environment.

Built-in BT

Allow wireless accessory adaptation.

DMO Gateway & Repeater

DMO Gateway and Repeater function supported allow DMO coverage improved.

Ergonomic Keys

With silica gel key materials, resilient touch experience brings easy operation.

Rugged design

Withstand the tough highly accelerated life test and strict Military standard G test, rugged quality ensure outstanding performance in tough use.

Flexible installation

MT680 Plus supports dash mount, desktop mount, remote mount.

Enhanced audio quality

New added noise cancelling solution ensure voice broadcasted clearly even in very noisy environment.





MT680 Plus Versatile Accessories

Work with terminal in an optimal and most desirable way, our comprehensive MT680 Plus accessories portfolio guarantees the easy, comfortable experience. The basic standard accessories of MT680 Plus include palm microphone, tube fuse, mounting bracket, power cord.

Standard Accessories



Palm Microphone



Tube Fuse



Mounting Bracket



Power Cord

Optional Accessories



External Power Supply



External Speaker



GPS Antenna



Foot Switch



Desktop Microphone



Heavy Duty Noise-canceling Headset



Keypad Microphone



Wireless Headset



Wireless Ring PTT



Telephone Style Handset



Ip67 Remote Control Kit

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

Features

Voice Services

- ▶ Pro-emptive Call
- ▶ Emergency Call
 - Emergency Group call to Selected Group
 - Emergency Group call to Pre-defined
 - Emergency Individual call
 - PSTN/PABX
 - Emergency phone call PSTN/PABX
 - Emergency Cycle
 - Emergency Silent
 - Emergency Protect Mode
 - Hot Mic
 - Configurable Emergency Priority
 - Location Information sending(TMO)
- ▶ DTMF
- ▶ Half-duplex call
 - Individual call
 - Group Call
 - Broadcast Call
 - PSTN/PABX
 - Open Call
 - Gateway Call(DMO)
 - Repeater Call(DMO)
- ▶ Duplex Call
 - Individual call
 - Group Call
- ▶ Fallback Operation
- ▶ Group Scanning
- ▶ Late Entry
- ▶ Notification Group
- ▶ Call Authorized by Dispatcher
- ▶ Call Default Group (PTT Work Mode)
- ▶ Individual call limit
- ▶ Energy-saving Mode
- ▶ Transmit Inhibit
- ▶ Repeater Mode
- ▶ Gateway mode

Gateway

- ▶ Group voice calls from DMO toTMO
- ▶ 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
- ▶ Call Pre-emption (in either direction)
- ▶ SDS messaging from DMO toTMO
- ▶ SDS messaging from TMO to DMO
- ▶ Individual call from DMO toTMO
- ▶ Individual call from TMO to DMO
- ▶ Emergency Individual call from DMO toTMO
- ▶ Emergency Individual call from TMO to DMO

User Security

- ▶ Ambience Listening
- ▶ Radio User Assignment (RUA)
- ▶ Lone worker
- ▶ Call out
- ▶ Terminal Configuration Password
- ▶ Multi network switching

Security Service

- ▶ Authentication
- ▶ Package Data User Authentication
- ▶ Air Interface Encryption
- ▶ Security Class: Class 1/2/3
- ▶ End to End Encryption
- ▶ Temporary Disable/ Enable
- ▶ Permanently Disable
- ▶ Temporarily Disable Enhancement

GPS Location Service

- ▶ GPS / GLONASS / Beidou
- ▶ Control Center Authentication by MS
- ▶ LIP protocol
 - Trigger Conditions (Configured via Air or CPS)
 - Emergency Call
 - Interval
 - Distance
 - Power On/Off
 - Status Message
 - Positioning Loss/Regain
- ▶ NMEA location reporting
- ▶ Time Synchronization and Adjustment
- ▶ Display the calling party's Relative direction & position
- ▶ Overspeed Alarm
- ▶ Routetrace

DMO Repeater

- ▶ ETSI type 1A DMO Repeater for channel efficient operation
- ▶ DMO voice and tone signalling on selected talkgroup
- ▶ SDS and Status messaging on selected talkgroup
- ▶ Transmission of Repeater Presence Signal
- ▶ Participate & Initiate call in repeater mode

License Control

- ▶ GCK*
- ▶ SCK OTAR
- ▶ VOX
- ▶ TETRA E2EE*
- ▶ Work Order
- ▶ Temporarily Disable Enhancement
- ▶ BT Upgrading & Programming
- ▶ SDS Template
- ▶ Drive Test
- ▶ Cell Application
- ▶ DMO Repeater
- ▶ TEA2
- ▶ Temporarily Disable Enhancement
- ▶ Route Trace
- ▶ Load Directed Roaming*
- ▶ Low Power Class
- ▶ TETRA Zone
- ▶ BT Indoor Location Gateway

*(Free Trial Applicable)

Data service

- ▶ Short Data Service
 - SDS-1, 2, 3, 4, TL
 - Status message
 - Immediate text message (TMO)
 - Long text message (TMO)
- ▶ Package Data
 - Single-slot
 - Multi-slot
- ▶ Peripheral Equipment Interface (PEI)
- ▶ AT command
- ▶ OTAP (Over The Air Programming)
- ▶ Status Message Solution
- ▶ WAP browser
- ▶ Circuit Mode Data
- ▶ Telemetry
- ▶ Short Data Template
- ▶ Work Order

User Interface / Display

- ▶ Multi-Language: more than 16 languages
- ▶ Java Platform 2.0
- ▶ 25 programmable key: quick access to menu and configured functions
- ▶ Multiple Dialing Methods: scroll dialing, dialing directly, alphabetic search, redial via call records, Dialing rules
- ▶ User Profiles
- ▶ Display reverse
- ▶ Customized Terminal Menu
- ▶ Customized Tone
- ▶ Time synchronization
 - With GPS time
 - With System time
- ▶ Configurable maximal/minimum volume
- ▶ Accessory Interface
 - Call Back
 - Independent Audio Export
 - Emergency Alarm
 - Ignition Sense
 - AT Command
 - Public Address
- ▶ External palm microphone
- ▶ Input Method Editor

Hardware Options

Yes: Available No: Not Available

	MT680 Plus(B)	MT680 Plus(E)	MT680 Plus(S)
BT	No	No	Yes
Gateway	No	No	Yes
GPS	No	Yes	Yes
E2EE	No	Yes	Yes

- B: Basic Version
- E: Executive Version
- S: Specialized Version

Specifications

General		
Frequency Bands		320-380MHz 380-430MHz 405-475MHz 806-870MHz
Dimensions (H*W*D)	Standard Mount	70 x 184 x 186mm
	Remote Mount	70 x 184 x 66mm(front panel) 70 x 184 x 177.6mm(main unit)
	Desktop Mount	150 x 220 x 291mm
Weight	Standard Mount	1853g
	Remote Mount	10.8V-15.6V DC (Typical value 13.2V DC)
Operating Voltage	Desktop Mount	10.8V-15.6V DC (Typical value 13.2V DC) 100-240V AC/50-60Hz
RF Specifications		
RF Channel Bandwidth	25KHz	
RF Power Output	10W	
RF Power Level Accuracy	± 2dB	
Receiver Class	Class A & B	
RX Static Sensitivity	-116dBm(Typical: -118dBm)	
RX Dynamic Sensitivity	-106dBm(Typical:-108dBm)	
Audio Specifications		
Maximum Audio Power Output	8W (internal SPK)	
Rated Audio Power Output	4W (Internal SPK)	

Item	Capacity
Talk Groups - TMO	3000
Talk Groups - DMO	2000
Phonebook	1000
Missed Calls	20
Received Calls	20
Dialed Calls	20
Inbox	400
Outbox	50
Drafts	50
Scan Lists –TMO	61
Folder–TMO	200×200 (200 groups in each list)
Folder–DMO	50×200 (200 groups in each list)
Environmental	
Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
Humidity	ETS 300 019 (95%)
Water and Dust Protection	IP54 (main unit) IP67(front panel); IEC60529
Drop, Shock & Vibration	MIL-STD-810 G;ETS 300 019-1-5 5M3
GPS	
Sensitivity	≤-146dBm acquisition sensitivity
	≤-165dBm tracking sensitivity
Location Accuracy	2.5m CEP
Cold Start (Time to First Fix)	< 35s
Hot Start (Time to First Fix)	< 1s

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



CE IC FCC

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