

MT680

TETRA mobile radio for vehicles

MT680 is the mobile radio for vehicles by Hytera for TETRA users of all sectors. MT680 stands out for high reliability, easy operation and ruggedness in all cases of application.



Radio

MT680

TETRA mobile radio



Highlights

Robust, durable constructions and easy handling

The robust design of the MT680 is crowned by a large TFT LCD display with 260,000 colors that allows trouble-free access to all of the information even with bright sunlight. The user-friendly user interface, entry via keypad and an efficient 4-Watt speaker ensure an excellent operation and handling and a high quality of communication.

Extreme quality and flexible installation

Thanks to its high flexibility MT680 can be practically installed everywhere. You can either integrate the front panel into the main unit or you can install it separately wherever the control elements are easily accessible. The front panel is protected dust-proof and water-proof according to IP67 and is extremely efficient even in critical situations.

Versatile services and functions

MT680 supports voice and data services of the TETRA standard. Thanks to the integrated GPS function a precise positioning is possible any time. The optional encryption* and the recording function offer additional important advantages. Moreover, you can adjust the device to your individual requirements using the expansion ports.

Immediate and direct communication

Thanks to the high 10-W-transmitting power you can reach your team colleagues even over large distances. The MT680 offers fast access to the TETRA mobile radio network and the roaming services. Moreover, the device is compatible with the base stations and other terminals of different manufacturers.



The features marked by * will be available in future versions of the MT680.

Encryption features are optional and have to be configured separately. They are also subject to German and European export regulations.

Functions

Operating mode

- Trunked radio mode (TMO): Communication via the TETRA radio network (semi-duplex and duplex mode)
- Direct mode (DMO): Direct communication between the devices without using the radio network (semi-duplex)
- Support for DMO Repeater and TMO / DMO Gateway communication: Increases the range with direct mode communication (DMO)

Voice services

Group calls

- Group call
- Group call with defined priority (incl. pre-emptive priority)
- Group call with emergency call priority
- Dynamic Group Number Assignment (DGNA)
- Broadcast call (group, TMO)
- Subscriber identification (talking party indication in the group call)

Individual call

- Individual call, half-duplex
- Individual call, duplex (TMO)
- Individual call with defined priority (also pre-emptive priority)
- Calling Line Identification Presentation (CLIP)

Calls to telephone networks (PSTN/PABX) (TMO)

- PSTN/PABX individual call, full-duplex
- PSTN/PABX individual call, half-duplex
- DTMF
- Calling Line Identification Presentation (CLIP)

Additional call services

- Callout

Security services

- Authentication
- Air interface encryption (TEA1, TEA2*, TEA3, TEA4)
- End-to-end encryption (E2EE)
- Access control with PIN / PUK code
- TETRA security class 1, 2, 3 (non-encrypted, static encryption, dynamic encryption)
- Key distribution via air interface (OTAR)
- Attachment / deactivation via air interface (Enable/Disable)
- Ambience Listening

Security functions for the user

- Emergency button
- Call barring
- Key Lock
- Configuration protection / configuration password
- TX Inhibit (TXI)

Functions of the user interface

- 16 programmable keys for direct access to the individual functions
- Multi-function group selector switch and volume control
- 4-ways navigation key
- Call log: missed/answered calls, dialed numbers
- Flexible dialing (e.g. direct dialing, redialing, dialing lists etc.)
- External handheld microphone (standard) or table microphone (optional)
- Adjustable display brightness
- Many international languages are already available, installation of several selectable languages on mobile station
- GPS positioning based on ETSI LIP or NMEA protocol
 - Completely integrated single-chip GPS receiver
 - Completely programmable position updates
 - Transmission of position data for emergency call
 - Time synchronization and calibration
- PEI interface
- Clock synchronization via GPS/SAT, radio network or local time
- Automatic cell re-selection without call interruption (handover)
- Programming several selectable network identifications (TMO, DMO)
- Programming several selectable PSTN/PABX gateways
- Customizable alarm tones
- Radio User Assignment (RUA)
- Ignition recognition

Data / message services

- Short data service (SDS) – types 1, 2, 3, 4 and TL
- Concatenated SDS (Long SDS) and Flash SDS
- Status message/text message
- Notification on new messages during calls
- Packet Data service (packet data, single-slot, multi-slot)



Technical Data

General data	
Dimensions (H x W x D) (with front panel)	70 x 184 x 201 mm
weight (with front panel)	1.9 kg
Operating voltage	10.8 – 15.6 V (standard 13.2 V)
Call group number – TMO	2048
Call group number – DMO	1024
Phone book	1000 entries
Group lists (used for scanning, scan lists)	64 (200 groups per list)
LCD display	320 x 240 Pixel, 260.000 colors
Audio power output	4 W (internal), 10 W (external, optional)

Radio characteristics	
Frequency ranges	350 – 400 MHz / 380 – 430 MHz 410 – 470 MHz / 806 – 870 MHz
Channel spacing	25 kHz
Transmitting power	maximally 10 W (settable)
Receiver class	ETSI EN 392-2/396 class A
Static receiver sensitivity	-112 dBm (standard -116 dBm)
Dynamic receiver sensitivity	-103 dBm (standard -105 dBm)

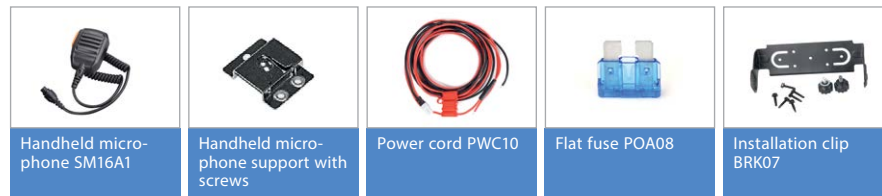
GPS data	
GPS antenna	External antenna
Sensitivity	≤ -154 dBm

Ambient data	
Operating temperature range	-25 °C to +65 °C
Storage temperature range	-40 °C to +85 °C
Relative humidity	ETS 300 019 (95 %)
Dust and water protection	IP54 (radio unit); IP67 (control unit) IEC60529 or GB-4208-93
Shock and vibration resistance	MIL-STD-810 F/G

All technical specifications were tested according to the relevant standards. Subject to change on the basis of continuous development.

The illustrations below are solely for reference. The products might differ from these illustrations.

Standard scope of delivery



Optional accessories (excerpt)



Your Hytera partner:



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Respond & Achieve

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