H-SERIES DMR RADIOS

Hytera

EMPOWERED COMMUNICATIONS

HM652 Mobile Radio

THE NEW STANDARD OF QUALITY AND PERFORMANCE

Hytera was a founding member of the DMR Association and since then, Hytera has been a leading provider of DMR radios, and has continuously improved our products based on customer feedback.

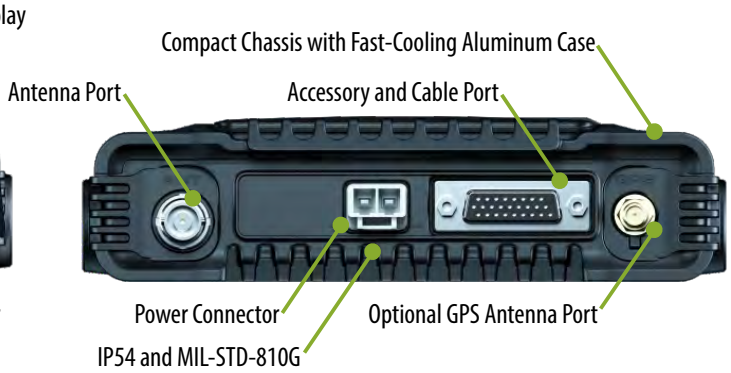
The Hytera H-Series of DMR radios and repeater systems is the culmination of this experience and spirit of innovation. The HM652 Mobile Radio is the next-generation in creative style and functionality that elevates the industry standard in professional digital two-way radios.

The HM652 Mobile Radio is the new state-of-the art in mobile radios, providing a more efficient and reliable experience with loud and clear audio, intuitive user interface, and flexible gateway radio network connectivity.

The Hytera HM652 is a new generation of entry-level professional DMR mobile two-way radios designed to provide reliable voice and data communications for remote workers and fleet operations.

- Compact, lightweight, and easy to install
- Simple operation with the handheld control head
- AI-based noise cancellation for industry-leading audio quality in loud vehicles
- High RX sensitivity ensures reliable communication

DMR
DIGITAL MOBILE RADIO ASSOCIATION



Louder and Clearer Audio

Industry-leading audio quality through AI-based voice enhancement with deep learning ability that can accurately extract voice from background noise in real time. The howling suppression prevents feedback between two radios in the same vehicle, ensuring clear and uninterrupted communication on the move.

Multi-System Flexibility

The HM652 mobile radios can be deployed in Analog and Digital Conventional, DMR Tier II, and optional Hytera XPT Trunking (multi-site with license), and Roaming between repeater sites.

Greater Calling Flexibility

Supports Individual Calls (radio to radio, radio to dispatcher), Group Calls (one radio to many, dispatcher to many), Unaddressed Group Calls (a single call to multiple groups),and All Call (broadcast call to all radios, transmit only).

Improved Worker Safety

The HM652 is designed for worker safety with an easy access emergency call button on the handset. Lone Worker prompts the user to press a key at preset intervals to indicate they are safe. Optional Priority Interrupt (with license) allows a dispatcher to interrupt existing calls with important emergency information, and a dispatcher can remotely enable and disable radios.

Analog or Digital Mode

The HM6 series can operate in either analog or digital mode, which is the ideal solution for you to migrate from analog to digital with minimal disruption and investment.

Durable and Rugged

IP54 compliant for water and dust ingress, and MIL-STD- 810 G for shock and humidity. The 10pin aviation connector for the Handheld Control Head is tight and secure, and coil cable has excellent stretching ability for long service life.

Enhanced GPS Location Tracking

HM652 models that support GPS report current location information to other radios, the dispatcher, or third-party applications in real time, enhancing the efficiency of visualized dispatch applications. GPS data is transmitted during voice calls for immediate location targeting, and GPS data is compressed to increase channel capacity and reduce hardware cost.

Greater Range

With high RX sensitivity, the HM652 delivers clear and dependable communication even in areas where the signal is unstable or weak.

Higher Security

Supports Digital End-to-End Encryption for voice and data. Optional advanced AES 2456 bit encryption is also available (optional with a license).

Handheld Control Head

The Handheld Control Head with three progammable buttons provides easy operation with a convenient location to control power, switch channels or contacts, and adjust volume.

Built-In Bluetooth

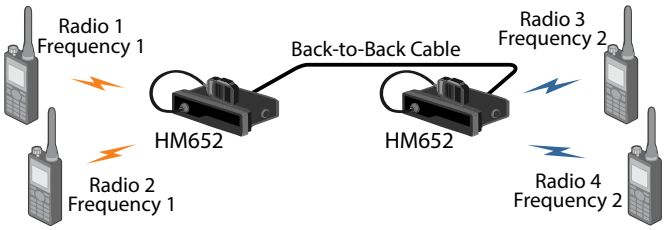
HM652 models that feature Bluetooth support audio handset accessories to improve safety and productivity during in-vehicle communications.

THE NEW STANDARD OF COVERAGE AND NETWORK FLEXIBILITY

In addition to reliable voice calls, the HM652 supports data services including text messages, back-to-back, clarity transmission, emergency alarms, remote radio enable/disable, GPS location, and more. These features dramatically enhance safety and productivity.

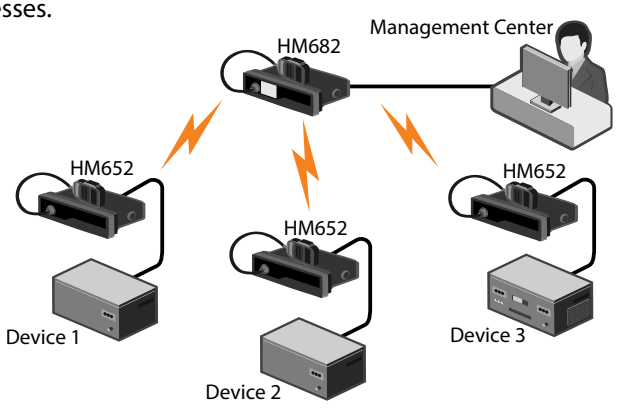
Back-To-Back

The HM652 can be deployed Back-to-Back to enable communication between analog and digital radios, or radios with different frequencies. Two HM652 radios can be deployed Back-to-Back, or one radio and a repeater can be used.



Clarity Transmission

The Clarity Transmission feature provides a wireless data path between remote network devices and a central network management station. HM652 mobile radios function as compact gateway devices and provide wireless channels that transparently transmit data without any modification, and can be deployed in a variety of monitoring and industrial control processes.



STANDARD ACCESSORIES

SM25A1
Palm microphone with emergency call and operation buttons and LCD screen

BRK44
Mounting bracket and hardware

PWC10
10'Vehicle power cable

GPS04
GPS antenna (for HM652 GPS models)

OPTIONAL ACCESSORIES

SM27W1
Bluetooth Remote Speaker Mic with operation buttons, LCD screen, and charging cable (for HM652 Blutooth models)

SM09D1
External Speaker with 6' Power Cable

PS22002
External Power Supply

PC47
Programming Cable with switch for use with multiple radios

Contact Hytera US Inc or your local Hytera Dealer for more information on additional HM652 accessories.

SPECIFICATIONS

General	
Frequency Range	UHF 400-470MHz
Channel Capacity	512 Channels (Analog or Digital)
Zone Capacity	32 Zones with up to 32 Channels per Zone
Channel Spacing	12.5kHz / 20kHz / 25kHz
Operational Voltage	13.6V ±15%
Current Drain	Standby: <0.5A Receive: <2.0A Transmit: 5W <4A, 45W UHF
Weight	2lb, 6.8oz (1100g)
Dimensions (HxWxD)	2 21/32" x 6 15/32" x 7 1/16" (42x154x164mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Display	Monochrome LCD on SM25A1 Handheld
Bluetooth	BT 5.0 BLE+EDR
Encryption (Optional)	Advanced end-to-end digital (128/266bit) DMRA encryption. Additional license required.

Receiver	
Digital Sensitivity	0.18μV (BER5 5%)
Analog Sensitivity	0.16μV (Typical) (12dB SINAD) 0.18μV (12dB SINAD)
Adjacent Selectivity	TIA-603: 60dB@12.5kHz, 70dB@20/25kHz ETSI: 60dB@12.5kHz, 70dB@20/25kHz
Spurious Response Rejection	TIA-603: 75dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz
Intermodulation	TIA-603: 75dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz
Blocking	TIA-603: 00dB ETSI: 84dB
Hum and Noise	40dB@12.5kHz, 43dB@20kHz, 45dB@25kHz
Rated Audio Power Output	Internal (20 Ohm load) 3W, 8W Max External (8 Ohm load) 8W, 20W Max
Rated Audio Distortion	≤3%
Audio Response	+1 to -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	UHF High Power 5-45W
FM Modulation	11K0F3E @ 12.5kHz 14K0F3E @ 20kHh 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz
Modulation Limiting	±2.5kHz @ 12.5kHz ±4.0kHz @ 20kHz ±5.0kHz @ 25kHz
FM Hum and Noise	40dB @ 12.5kHz, 43dB @ 20kHz, 45dB @ 20/25kHz
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 20/25kHz
Audio Response	+1 to -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™

Environmental	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
ESD	IEC 61000-4-2 (Level 4) ±8kV Contact, ±15kV Air
Dust and Water Ingress	IP54 Standard
Humidity	Per MIL-STD-810H US Military Standard
Shock and Vibration	Per MIL-STD-810H US Military Standard

GPS (5 Satellites visible at nominal 130dBm)	
Time to First Fix Cold Start	<60 Seconds (Typical TTFF)
Time to First Fix Hot Start	<10 Seconds (Typical TTFF)
Horizontal Accuracy	<5 meters

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

Ordering Information	
HM652-U1	UHF 400-470MHz, 5-45W
HM652-G-BT-U1	UHF 400-470MHz, 5-45W with GPS and Bluetooth

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