H-SERIES DMR RADIOS

Hytera

EMPOWERED COMMUNICATIONS

HP702 HP782 HP602 HP682

HM782

The Hytera H-Series

Hytera was a founding member of the DMR Association and was the first company to successfully deploy DMR Tier II and Tier III systems. Since then, Hytera has been a leading provider of DMR radios and systems, and has continuously improved products based on customer feedback.

HR1062

The H-Series of radios and repeaters is the culmination of this experience and spirit of innovation. The H-Series is the next-generation in creative style and functionality that elevates the industry standards in professional digital two-way radios.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

H-SERIES DMR RADIOS

Industry Leading Audio Quality

The H-Series radios are designed for clear voice quality in loud environments with AI-based voice enhancement and deep learning ability that can accurately extract voice from background noises as loud as 30db in real time. The H-Series radios feature large-forward facing speakers with water-porting technology that quickly drains water out of speaker cavity to maintain audio clarity.

Extended Coverage and Connectivity

The HP6 and HP7 radios extend radio range through increased Tx power efficiency, Rx sensitivity, improved antenna gain, and reduced attenuation. This produces a 25% increase in coverage distance that improves efficiency and reduces network infrastructure costs. Two patented technologies and a voice buffer reduces packet loss during Rx handover for consistently clear calls and fewer dropped words.

Enhanced Worker Safety

H-Series radios are designed for safety with an easy access emergency button, emergency calling, and priority interrupt. The Lone Worker feature prompts the user to press a key or speak to indicate they are safe. Man Down allows the handheld radios to automatically enter emergency mode when the radio is inclined or remains motionless for a predetermined time period. Remote Monitor allows a dispatcher to enable the PTT button on a user's radio and listen during an emergency.

Thinner and Lighter

An optimized mechanical design with advanced materials, and a lightweight lithium polymer battery results in a thin and compact handheld radio that weighs less than 11 ounces.

Multi-System Operation

The H-Series can be deployed in a variety of networks, including Analog and Digital Conventional, XPT Trunking, DMR Tier II, Tier III Trunking, IP Multi-Site Connect, and DMR Simulcast Systems.

THE NEW STANDARD OF QUALITY AND PERFORMANCE

Higher Level of Ruggedness

The HP6 and HP7 Series are fully compliant with the IP68 and MIL-STD- 810G standards. They are dust proof, impervious to water jets, submersible to a depth of 2 meters for 4 hours, and can stand up to thirty drop-shock tests on concrete from 2 meters height. The HP6 and HP7 Series feature an anti-magnetic speaker does not attract magnetic metal dust and shavings. The HP702 and HP782 are available in Intrinsically Safe models that are Class I, II, and III UL913 certified for use in areas where flammable dust and vapors are present. The HM782 is compliant with IP54.

Longer Battery Life

The latest in lithium polymer battery technology is used to power the HP6 and HP7 Series handheld radios for excellent performance. The battery is light and small, achieving a shift life of up to 24 hours on high transmit power with a duty cycle of 5/5/90.

Enhanced GPS Location Tracking

Optional GPS reports real time locations to other radios, the dispatcher, or third-party applications. GPS data can be transmitted during voice calls for immediate location targeting, and GPS data is compressed to increase channel capacity and reduce hardware cost.

Greater Calling Flexibility

The H-Series supports Individual Calls, Group Calls, and All Call, to provide the flexibility to communicate with any or all users.

Higher Security

Digital End-to-End and Over-the-Air Encryption secures voice and data transmitted on digital channels to prevent eavesdropping. Hardware encryption is implemented through a built-in encryption card. Software encryption uses the secure ARC4 and AES algorithms.

Bluetooth and MicroSD Card

Optional Bluetooth enables connectivity to wireless accessories, and the MicroSD card provides additional capabilities like voice recording.

HP6 AND HP7 HANDHELD RADIOS

HP602	HP682	HP702	HP782
AI-Based Digital Noise Cancellation and Large Speakers			
0.91" OLED Display	1.8" LCD-TFT 160x128 Display	0.91" OLED Display	2.4" LCD-TFT 320x240 Display
360° Smart Knob for Volume Control and Channel Switching			
N/A	Navigation buttons and Keypad	N/A	Navigation buttons and Keypad
2 Programmable Buttons	5 Programmable Buttons	3 Programmable Buttons	6 Programmable Buttons
9.35oz (265g)	9.88oz (280g)	10.23oz (290g)	10.93oz (310g)
IP68 and MIL-STD 810G			
Anti-Magnetic and Water Porting Speakers			
2,000mAh Lithium Polymer Battery		2,400mAh Lithium Polymer Battery	
5/5/90 Battery Life up to 20 Hours		5/5/90 Battery Life up to 24 Hours	
Extended Range through increased Tx power efficiency, Rx sensitivity, improved antenna gain, and reduced attenuation			
End-to-End Advanced AES and ARC4 Encryption (additional license required)			
Advanced GPS Location Tracking (on specific models)			
Built-in Bluetooth (on specific models)			
N/A		MicroSD Card for Voice Recording	
Programmable Emergency Button		Dedicated, Easy-Access Emergency Button	
Lone Worker, Man Down, and Call Interrupt Emergency Features			
Silent Vibrate Mode			
N/A		Intrinsically Safe UL913 models available (Future Release)	

HP6 AND HP7 HANDHELD RADIOS

THE NEW STANDARD OF FUNCTIONALITY AND USER EXPERIENCE

The HP682, HP782, and the HM782 mobile radios feature large TFT-LCD displays that provide ample screen area for easily accessing a variety of information and functionality.

Simplified Navigation

The app icons are arranged in a grid layout, making visual recognition more intuitive. The menu layers are simplified and streamlined so users can easily change settings and adjust features.

Clear Notifications and Information Display

On the home screen, the radios display time and contact alias/ID, and can display two notifications simultaneously. The radio supports notifications of emergency calls, missed calls, call alerts, new messages, and users can preview message contents.

The dialing interface supports selection of individual calls, group calls, PSTN/PABX phone dialing, fast dialing, and channel switching (CPS selection configuration).

The call interface displays call status (digital/analog, encryption status, recording status, call transfer, etc.), contact alias/ID, contact address, call duration, and speaker location information.

Multiple User Profiles

Four different user profiles can be selected according to the scenario and set the corresponding tone, volume, vibration, and more. For example, profiles can match the environment, such as indoors in a meeting or outdoors in a noisy area.

Interface Switcher

The Interface Switcher allows users to easily to switch between the home screen and up to three frequently used interfaces. This makes it easy to view or perform feature settings on these interfaces for efficient operations and to ensure rapid response in critical situations.

Dynamic Calls

Calls can be made with manual dialing without switching the dialing mode. In the dialing interface, users can select a private, group, or PSTN/PABX call. In addition to the contact alias/ID, the radio also displays call status (including call mode, encryption status, recording status, and call forwarding status), contact address, and call duration.

Text Messaging and Conversational SMS

Private and group text messages can be typed freeform or the user can send and receive a variety of preprogrammed messages. The short message is displayed in the form of a dialog box, along with the message and sender details. The interactive mode is more intuitive, and the message sending and receiving is simple and efficient.

HM782 MOBILE RADIO

Multi-System Flexibility

The HM782 can be deployed in Analog and Digital Conventional, MPT and XPT Trunking, DMR Tier II and Tier III Trunking, IP Multi-Site Connect, and DMR Simulcast Systems.

Greater Calling Flexibility

The HM782 supports Individual Calls (radio to radio, radio to dispatcher), Group Calls (one radio to many, dispatcher to many), All Call (broadcast call to all radios, transmit only), and Telephone Calls (with connectivity to PSTN, PABX or SIP networks).

Clear and Bright Display

The HM782 features a 2.4-inch, 240x300 HD TFT-LCD display with an intuitive six-grid navigation interface with large type and icons. The display supports 262,000 colors, and is clearly visible in bright sunlight.

Enhanced Worker Safety

The HM782 radios are designed for worker safety with an easy access emergency button, emergency calling, and priority interrupt. Lone Worker prompts the user to press a key at preset intervals to indicate they are safe. Large tactile knobs and piano-style buttons provide easy access that keep eyes on the road.

Durable and Rugged

IP54 compliant for water and dust ingress, and MIL-STD-810G for shock and humidity.

Louder and Clearer Audio

Hytera provides industry-leading audio quality through an optimized forward-facing loudspeaker and AI-based voice enhancement with deep learning ability that can accurately extract voice from noise in real time.

Enhanced GPS Location Tracking

The HM782 reports current location information to other radios, the dispatcher, or third-party applications in real time, enhancing the efficiency of visualized dispatch applications.

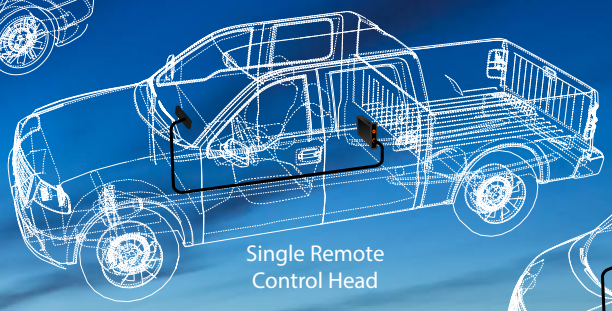
Higher Security

The HM782 supports Digital End-to-End and Over-the-Air Encryption for voice and data. Hardware encryption is implemented through a built-in encryption card. Advanced software encryption uses the ARC4 and AES encryption algorithms.

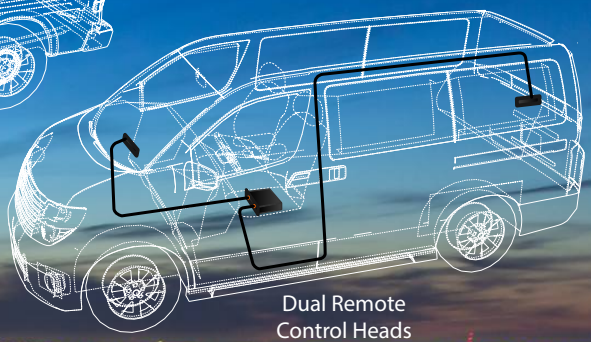
HM782 MOBILE RADIO

The HM782 can be installed as a single-unit control head within reach of the driver, or with one or two remote control heads connected via cable to a radio installed under the seat or the rear of the vehicle compartment. The HM782 can also be deployed in a base station case with a power supply.

Standard Control Head



Single Remote Control Head



Dual Remote Control Heads

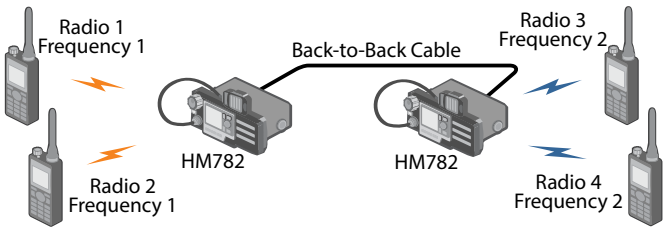
FLEXIBLE CONFIGURATIONS

Remote Control Heads available in late 2023

APPLICATION EXAMPLES: The HM782 can extend coverage range, connect multiple radio sites, provide wireless data transmission, and support multiple simultaneous mode functions.

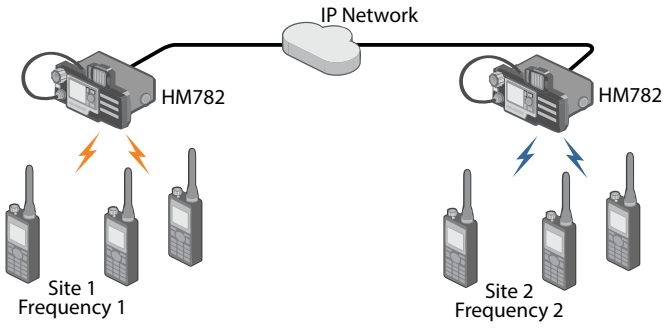
Back-to-Back

The HM782 can be deployed Back-to-Back to enable communication between analog and digital radios, or radios with different frequencies. Two HM782 radios can be deployed Back-to-Back, or one radio and a repeater can be used.



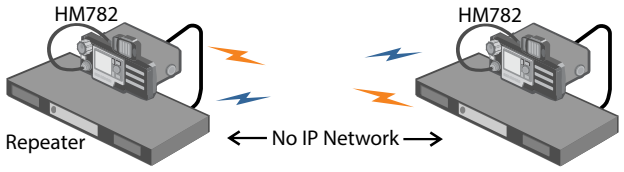
IP Transit

Multiple HM782 mobile radios can be connected to an Ethernet/IP network to provide a reliable and cost-effective method to connect remote radio sites and extend coverage areas. IP Transit can connect radio sites with analog or digital radios, and radios with different frequencies.



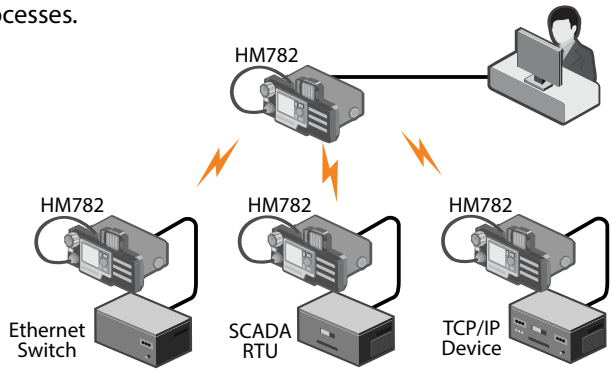
Wireless Link

In situations where a wired IP network is unavailable between two repeaters, two HM782 radios using different frequencies can provide a wireless link between the repeaters.



Clarity Transmission

The Clarity Transmission feature provides a wireless data path between remote network devices and a central network management station. HM782 radios also function as compact gateway devices and provide wireless channels that transmit data transparently without any modification, and can be deployed in a variety of monitoring and industrial control processes.



HR1062 DMR REPEATER

Compact 1U Form Factor
The 1U height is half that of conventional repeaters, and the HR1062 features a in-built power supply to save valuable rack space.

AC/DC Auto Switch
The HR1062 supports AC/DC auto switching for locations with different power sources, power redundancy, and eliminates the cost and space required for power adapters.

Analog & Digital Auto Switch
Mixed channel mode detects the receiving signal and automatically switches between analog and digital mode to provide a simple migration path.

Reliable Operation
Variable speed fan provides optimal cooling with front to back internal airflow, combined with high quality components to ensure 100% duty cycle operation for mission critical and heavy call traffic applications.

Flexible Radio Network Connectivity
The HR1062 supports a wide variety of analog and digital radio networks, including Analog and Digital Conventional, DMR Tier II, XPT Trunking, and DMR Tier III Trunking.

Wide Coverage
Enhanced Rx sensitivity extends communication range, and an Ethernet port provides access to IP networks to enable remote site connectivity.

DMR - 2 TDMA 2 Time Slots
TDMA digital technology provides 2 simultaneous voice channels that improves efficiency and doubles capacity without an extra frequency.

Higher Security
The HR1062 supports Digital End-to-End and Over-the-Air Encryption. This optional software-based encryption uses the secure and reliable ARC4 and AES encryption algorithms.

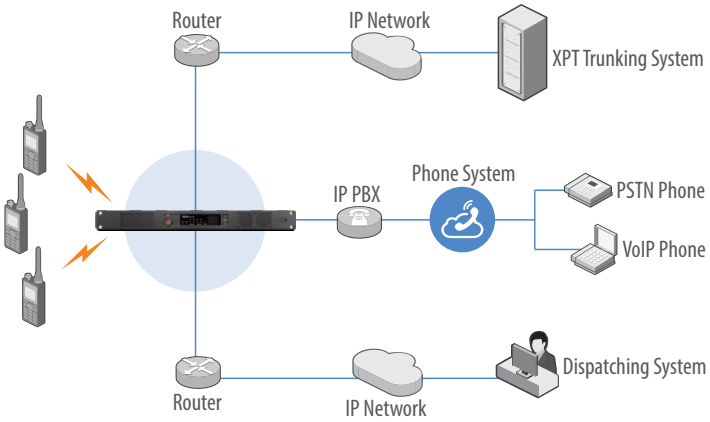
SmartOne

SmartOne is a professional dispatching and unified communications solution that integrates voice and video communications. It is based on soft-switching technology that provides integration between DMR networks, public telephone systems, Push-to-Talk over Cellular, and video communication systems.

SmartOne allows for interconnected and unified dispatching across multiple technology standards whenever and wherever needed. It supports voice and video group calling and GPS location tracking with geofencing and breadcrumb route histories.

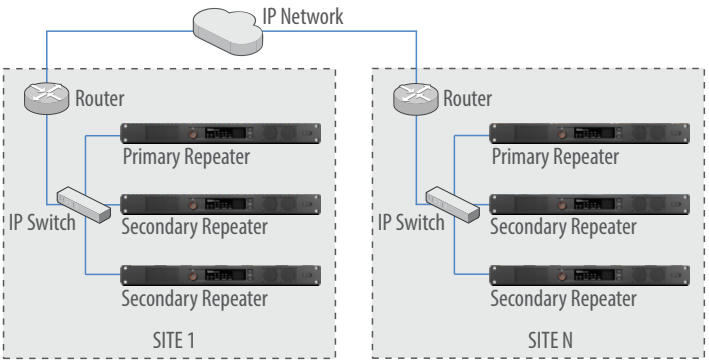
Flexible Interconnection

The HR1062 repeater is designed as an intelligent and seamless communication platform with the flexibility to connect with a variety of systems. The HR1062 can provide inter-system connectivity to SIP and VoIP Phones, dispatching systems, and DMR Tier II, Tier III, and XPT Trunking Systems.



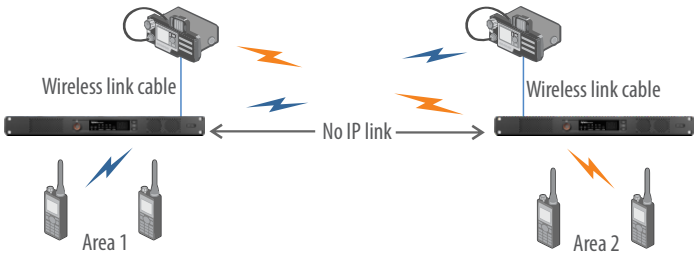
XPT Trunking System (License Required)

The XPT Trunking System is a widely-deployed, cost-efficient, and easily expandable radio system from Hytera. Based on proven repeater technology, XPT provides a wide-area distributed trunked radio system with increased capacity, and does not require a controller node and dedicated control channel for high-traffic users.



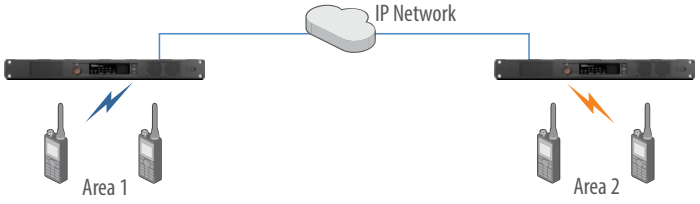
Wireless Link

Wireless Link communication provides wireless connection between two systems when there is no IP link. Two HM782 mobile radios using different frequencies provide a wireless link between the repeaters in remote locations.



Back-to-Back

Back-to-Back operation provides a cross-band communication IP link between two repeaters to enable connectivity to analog and digital radios, or radios with different frequencies.



STANDARD ACCESSORIES

HP6 R003 Nylon Hand Strap, BC48 Belt Clip, Long Antenna, PS1014 Charger/Power Adapter, CH10L27 Drop-In Single Unit Charger, BP2402 2000mAh Li-Ion Polymer Battery
HP7 R003 Nylon Hand Strap, BC48 Belt Clip, Stubby Antenna, PS1014 Charger/Power Adapter, CH10L27 Drop-In Single Unit Charger, BP2403 2400mAh Li-Ion Polymer Battery
HM782 SM16A1 Palm microphone without keypad, BRK08 Mounting bracket and hardware, PWC10 Vehicle power cable, POA33 Fuse, GPS04 GPS antenna (with GPS models)
HR1062 Standard AC power cable

OPTIONAL ACCESSORIES

HP6 and HP7 Radios

MCL32
6-Radio Multi-Unit Charger

PC152
USB programming cable

HM782 Accessories

SM27W2
Bluetooth Remote Speaker Mic with charging cable

SM10A1
Desktop Microphone

SM19A1
Palm PTT Microphone with keypad and emergency button

SM09D1vExternal Speaker

PS16001
Base Station Power Supply with GPS cable

PS22002 External Power Supply

HR1062 Accessories

Programming Cables

External Duplexers

Back-to-Back Cables

SM09D1 External Speaker

SM10A1 Desktop Microphone

PS22002 External Power Supply

SPECIFICATIONS

General	
Frequency Range	UHF 400-527 MHZ , VHF 136-174MHz **HM782** UHF 350-470MHz , VHF 136-174MHz
Channel Capacity	1,024 Channels (512 Analog, 512 Digital) **HR1062** 64 Channels
Zone Capacity	64 Zones with 256 Channels per Zone
Channel Spacing	12.5kHz / 20kHz / 25kHz
Operational Voltage	**HP6 and HP7** 7.7V (Rated) **HM782** 13.6V ±15% **HR1062** DC: 13.6V ±15%, AC: 100-120V Current Consumption: DC: Standby ≤0.9A, Transmitting ≤12A AC: Standby ≤0.35A, Transmitting ≤1.2A
Battery	**HP6** 2000mAh Li-Ion Polymer **HP7** 2400mAh Li-Ion Polymer
Battery Life (5/5/90)	**HP6** 16 Hours with GPS on, 20 Hours GPS disabled **HP702** UHF - 24 Hours, 26 Hours GPS disabled VHF - 21 Hours, 25 Hours GPS disabled **HP782** UHF/VHF - 20 Hours, 24 Hours GPS disabled
Weight	**HP702** 10.23oz (290g), **HP782** 10.93oz (310g) **HP602** 9.35oz (265g), **HP682** 9.88oz (280g) **HM782** 3lb 8.1oz (1,520g) **HR1062** 17lb 80z (8.0kg)
Dimensions (H x W x D) (without antenna)	**HP602** 4 3/4" x 2 5/32" x 1 3/16" (122 x 55 x 30.5mm) **HP682** 4 3/4" x 2 5/32" x 1 7/32" (122 x 55 x 31.5mm) **HP7** 5 3/16" x 2 5/32" x 1 5/32" (132 x 55 x 29.5mm) **HM782** 2 7/16" x 6 31/32" x 7 1/16" (61.5 x 177 x 179mm) **HR1062** 13/4" x 19" x 14 3/4" (44 x 483 x 366mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Display	**HP602 and HP702** OLED 0.91" Display **HP682** LCD 1.8", 160x128, 65,536 colors, 6 rows **HP782** LCD 2.4", 320x240, 262,000 colors, 10 rows **HM782** LCD 2.4", 240x320, 262,000 colors, 10 rows
Bluetooth	**HP6, HP7, and HM782** BT 5.0 BLE+EDR
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
Receiver	
Digital Sensitivity	0.18µV (BER 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 **HR1062** TIA-603: 65dB@12.5kHz, 75dB@20/25kHz ETSI: 60dB@12.5kHz, 70dB@20/25kH
Spurious Response Rejection	TIA-603: 70dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz **HR1062** TIA-603: 80dB@12.5/20/25kHz ETSI: 80dB@12.5/20/25kHz
Intermodulation	TIA-603: 70dB@12.5/20/25kHz ETSI: 65dB@12.5/20/25kHz **HR1062** TIA-603: 75dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz
Hum and Noise	40dB@12.5kHz, 43dB@20kHz, 45dB@25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 to -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	**HP6, HP7** Low Power: VHF 1W, UHF 1W High Power: VHF 5W, UHF 4W **HM782** Low Power: UHF: 1-25W, VHF: 5-25W High Power: UHF: 1-45W, VHF: 5-50W **HR1062** 5-50W adjustable
FM Modulation	11K0F3E @ 12.5kHz, 14K0F3E @ 20kHz, 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz **HR1062** on Standby ≤1GHz: -57dBm, >1GHz: -47dBm
Modulation Limiting	±2.5kHz @ 12.5kHz, ±4.0kHz @ 20kHz, ±5.0kHz @ 25kHz
FM Hum and Noise	40dB @ 12.5kHz, 43dB @ 20kHz, 45dB @ 20/25kH
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 25kHz
Audio Response	+1 to -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Environmental	
Operating Temperature	-0°F to +140°F (-20°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
ESD	**HP6, HP7, and HM782** IEC 61000-4-2 (Level 4) ±8kV Contact, ±15kV Air
Dust and Water Ingress	**HP7** IP68 Standard, **HP6** IP67, **HM782** IP54
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock and Vibration	Per MIL-STD-810 C/D/E/F/G Standard

Specifications apply to all H-Series products, unless noted otherwise in **bold text**.
HP6 refers to both HP602 and HP702, and HP7 refers to both HP702 and HP782.
All specifications are subject to change without notice due to continuous development.

ORDERING INFORMATION

HP6 Ordering Information	
HP602-Um	UHF 400-527MHz (Antenna 400-470MHz), 1-4W
HP602-V1	VHF 136-174MHz (Antenna 147-160MHz), 1-5W
HP602-G-BT-Um	UHF 400-527MHz (Antenna 400-470MHz), 1-4W, with GPS and Bluetooth
HP602-G-BT-V1	VHF 136-174MHz (Antenna 147-160MHz), 1-5W, with GPS and Bluetooth
HP682-Um	UHF 400-527MHz (Antenna 400-470MHz), 1-4W
HP682-V1	VHF 136-174MHz (Antenna 147-160MHz), 1-5W
HP682-G-BT-Um	UHF 400-527MHz (Antenna 400-470MHz), 1-4W, with GPS and Bluetooth
HP682-G-BT-V1	VHF 136-174MHz (Antenna 147-160MHz), 1-5W with GPS and Bluetooth
HP7 Ordering Information	
HP702-Uv	UHF 350-470MHz (Antenna 400-470MHz), 1-4W
HP702-V1	VHF 136-174MHz (Antenna 146-164MHz), 1-5W
HP702-G-BT-Uv	UHF 350-470MHz (Antenna 400-470MHz), 1-4W, with GPS and Bluetooth
HP702-G-BT-V1	VHF 136-174MHz (Antenna 146-164MHz), 1-5W, with GPS and Bluetooth
HP782-Uv	UHF 350-470MHz (Antenna 400-470MHz), 1-4W
HP782-V1	VHF 136-174MHz (Antenna 146-164MHz), 1-5W
HP782-G-BT-Uv	UHF 350-470MHz (Antenna 400-470MHz), 1-4W, with GPS and Bluetooth
HP782-G-BT-V1	VHF 136-174MHz (Antenna 146-164MHz), 1-5W, with GPS and Bluetooth
HM782 Ordering Information	
HM782-Uv	UHF 350-470MHz, 1-45W
HM782-V1	VHF 136-174MHz, 5-50W
HM782-G-BT-Uv	UHF 350-470MHz, 1-45W, with GPS and Bluetooth
HM782-G-BT-V1	VHF 136-174MHz, 5-50W, with GPS and Bluetooth
HR1062 Ordering Information	
HR1062-U1	DMR Repeater UHF 400-470MHz, 5-50W, DMR Tier II & Analog Conventional Mode
HR1062-V1	DMR Repeater VHF 136-174MHz, 5-50W, DMR Tier II & Analog Conventional Mode

H-SERIES

The H-Series provides the performance, value, and reliability for virtually any application or industry.

- Security Companies
- Hotels and Resorts
- Education
- Healthcare
- Senior Living
- Manufacturing
- Agriculture
- Transportation and Logistics
- Energy Production
- Property Management
- Houses of Worship
- Non-Profits

Hytera

H-Series-DS-A 5/22

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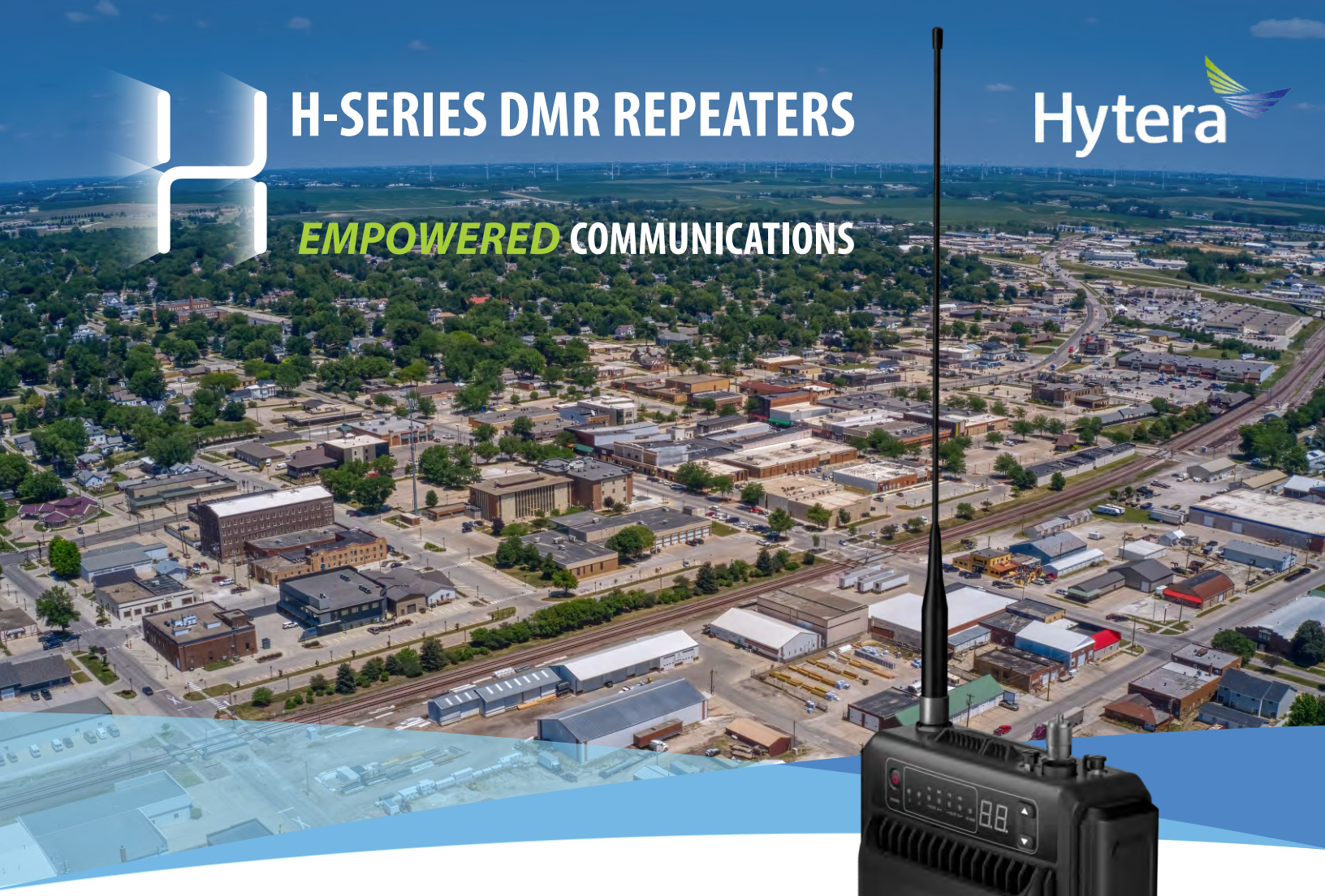
H-SERIES DMR REPEATERS

Hytera

EMPOWERED COMMUNICATIONS



Hytera HR652
Compact DMR Repeater

Hytera was a founding member of the DMR Association and was the first company to successfully deploy DMR Tier II and Tier III systems. Since then, Hytera has been a leading provider of DMR radios and systems, and has continuously improved products based on customer feedback.

The Hytera H-Series is the culmination of this experience and spirit of innovation. The HR652 Compact Repeater is the next-generation in creative style and functionality that elevates the industry standards in professional digital two way radios.

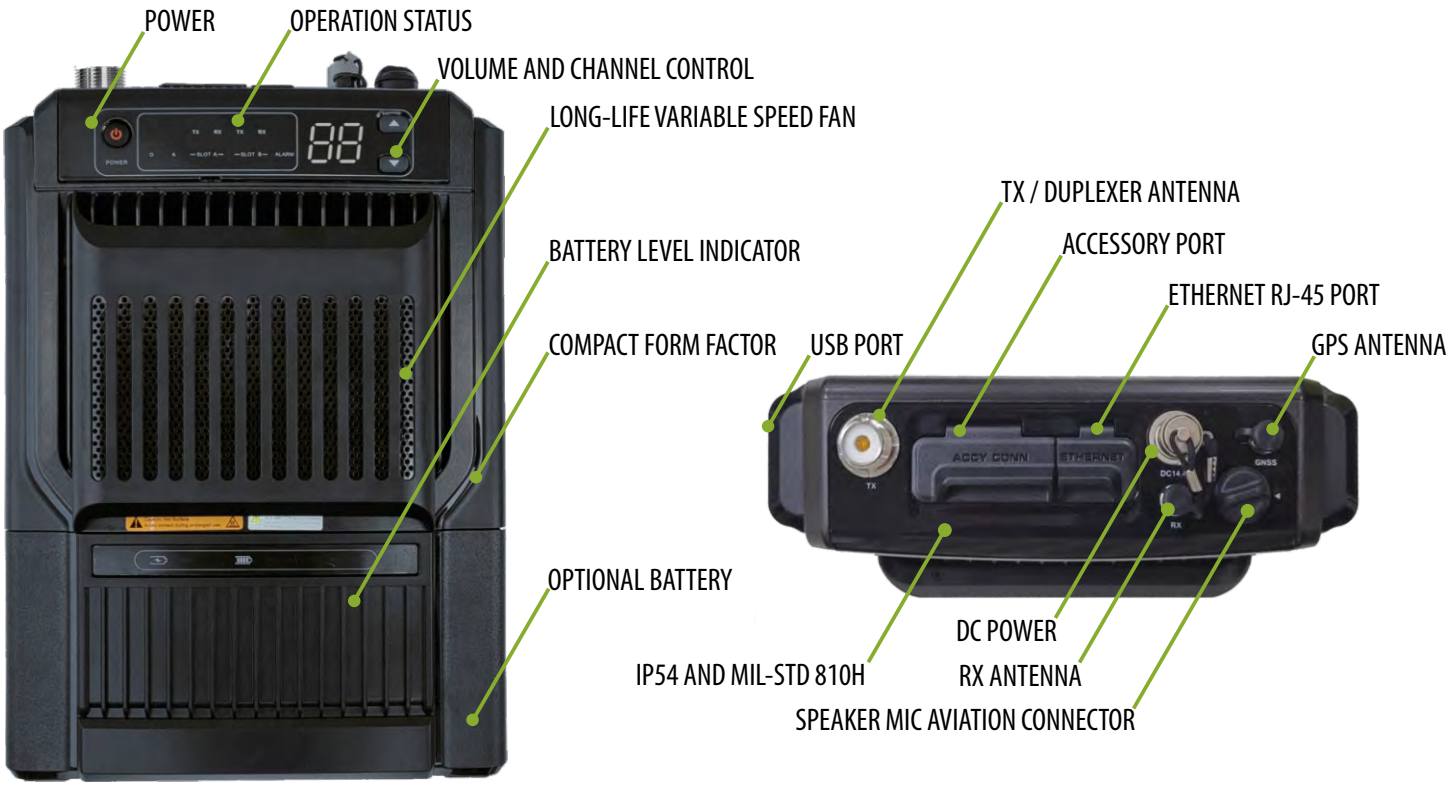
The HR652 is a new state-of-the-art radio repeater, providing a more efficient and reliable experience with outstanding performance, compact size, flexible power options, and system interconnect capabilities.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

THE NEW STANDARD OF QUALITY AND PERFORMANCE

The HR652 is the next generation in compact DMR repeaters designed to expand radio range with consistent, reliable, and seamless voice and data communications. It is fully compliant with the DMR standard with TDMA digital technology that provides 2 simultaneous voice channels to double voice channel capacity.

- Ultra Compact for Flexible Installations and Portability
- Optional Battery for Mobile Applications and Backup Power
- Interconnect Multiple Repeaters with IP-Connect
- Supports both Analog and Digital modes



Ultra-Compact Form Factor

Weighing only 4 pounds, 6 ounces and measuring less than 7" tall (without the optional battery) the HR652 delivers unprecedented performance in a compact form factor. It can be deployed in portable applications or be installed on any flat surface in areas with limited wall space.

Analog & Digital Auto Switch

The HR652 can operate in analog mode, DMR mode, or dynamic mixed digital/analog mode, which automatically switches between analog and digital calls, and provides an ideal solution for smooth analog to digital migration with minimal investment.

Reliable Operation

The HR652 is built to perform in harsh environments with MIL-STD-810H compliance for ruggedness and impact resistance, and IP54 rated for dust and water intrusion. The HR652 can be configured for 25W high power transmission or variable Wattage low power transmission for localized coverage and preventing interference.

Higher Security

The HR652 supports Digital End-to-End and Over-the-Air Encryption with optional ARC4 and AES advanced encryption algorithms.

Farther Coverage

The HR652 features industry-leading RX sensitivity and 25 Watts output power, increasing the effective communication range for DMR radios throughout a campus, or on each floor of a high-rise building. It covers more area than other compact repeaters, delivering cost-effective coverage for the entire facility. The HR652 also functions as a Single Frequency Repeater that uses both DMR timeslots to receive and forward calls over a single frequency in Direct Mode.

Optional Battery Power

The HR652 features an optional battery for portable applications and for battery backup in fixed indoor installations in the event of a power outage. The 12.5Ah large-capacity battery can provide up to 4 hours at 25W. Fast charging technology enables the battery to be fully charged in just 3.5 hours with the optional AC/DC power adapter 100W fast charger.

Portable

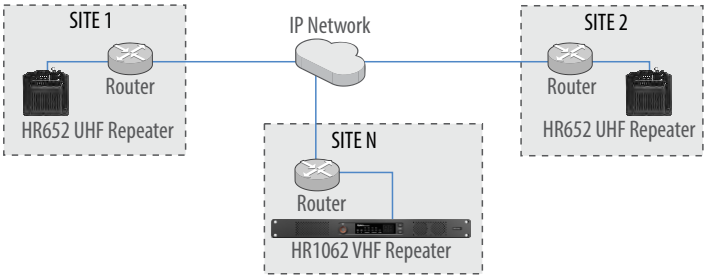
The HR652 can be equipped with the optional battery, dedicated antenna, GPS, and a light backpack for mobile search and rescue operations. It can also be deployed in vehicles for mobile coverage and powered by the vehicle battery. The HR652 can be turned on and used immediately upon arriving at the site. The ultra-light design can also be used with drones to achieve a wider range of signal coverage.

THE NEW STANDARD IN RADIO NETWORK CONNECTIVITY

FLEXIBLE CONNECTIVITY

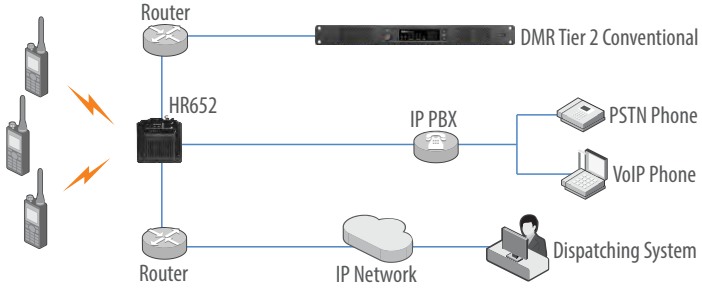
IP Connect (License Required)

IP Connect enables linking multiple HR652 repeaters via Ethernet LAN/WAN networks, third-party IP networks, VPNs, and microwave. It provides cost-effective and flexible way to expand coverage to multiple locations, or to provide supplemental coverage for a campus, or large building to ensure radio network coverage throughout the entire facility. IP-Connect also provides cross-connect functionality to link radios using different UHF/VHF frequency bands.

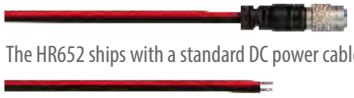


Flexible Interconnection

The HR652 repeater is designed as an intelligent and seamless communication platform with the flexibility to connect with a variety of systems, including SIP and VoIP Phones, dispatching systems, DMR Tier II, and IP Connect Systems.



OPTIONAL ACCESSORIES



The HR652 ships with a standard DC power cable.

PS8002
AC/DC Power Adapter
100W Fast Charger
100~240VAC/2A 16.8V/8A/134.4W
(required to charge battery)

SM25A1
Palm Speaker Microphone
with LCD, IP54

BRK36
Wall-Mount
Bracket

BL9915
Li-Ion Battery Pack
12500mAh

NCN035
Backpack

Supports
third-party
Antenna

MR3332S-3
Internal Duplexer,
5 MHz separation

PC47
Programming Cable

GPS04
GPS Antenna SMA connector,
1575MHz

SPECIFICATIONS

General	
Frequency Range	UHF 400-470MHz
Channel Capacity	1,024 Channels
Channel Spacing	12.5kHz / 20kHz / 25kHz
Operational Voltage	DC Power Input: 14.4V ±15% Battery Voltage: 12-16.8VDC
Current Consumption	DC: Standby ≤0.35A, Transmitting 10W ≤3A, 25W ≤6A AC: Standby ≤0.35A, Transmitting ≤1.2A
Battery	14.4V/125Ah/1,800W
Battery Life (50-50 Duty Cycle)	High Power setting 25W: 4 hours Low Power setting 10W: 9 hours
Weight	4lb, 6oz (2.0 kg) without battery
Dimensions (HxWxD)	7 15/16" x 8 5/16" x 3 3/16" (201 x 211 x 80mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Networking	Conventional Single Site Repeater Mode, IP-Connect

Receiver	
Digital Sensitivity	0.2μV (BER5 5%) 0.18μV (Typical)/BER 5%
Analog Sensitivity	0.16μV (Typical) (12dB SINAD) 0.18μV (12dB SINAD)
Adjacent Selectivity	TIA-603: 65dB@12.5kHz, 75dB@20/25kHz ETSI: 60dB@12.5kHz, 70dB@20/25kHz
Spurious Response Rejection	TIA-603: 80dB@12.5/20/25kHz ETSI: 80dB@12.5/20/25kHz
Intermodulation	TIA-603: 75dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHzd
Blocking	90dB
Hum and Noise	40dB@12.5kHz, 43dB@20kHz, 45dB@25kHz
Rated Audio Distortion	≤3%
Audio Response	+1 to -3dB
Conducted Spurious Emission	Operating ≤1GHz: <-57dBm Standby >1GHz: ≤-47dBm

Transmitter	
RF Power Output	High Power setting 5-25W (Continuous Adjustable) Low Power setting 1-5W (Continuous Adjustable)
FM Modulation	11K0F3E @ 12.5kHz 14K0F3E @ 20kKh 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	Operating: ≤1GHz: -36dBm, >1GHz: -30dBm Standby: ≤1GHz: -57dBm, >1GHz: -47dBm
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™
Digital Protocol	ETSI-TS 102 361-1,-2,-3

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)
Dust and Water Intrusion	IP54
Shock, Vibration, and Humidity	MIL-STD 810H

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

Ordering Information	
HR652-U1	Compact DMR Repeater UHF 400-470MHz, 5-25W, DMR Tier II & Analog Conventional Mode

Hytera_HR652_DS-A 10/23

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Contact Us Online Or Let's Talk!
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