

# Hytera HR1062 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 HR1062 Blade Repeater and System Gateway is the next-generation in creative style and functionality that elevates the industry standards in professional digital two way radios.

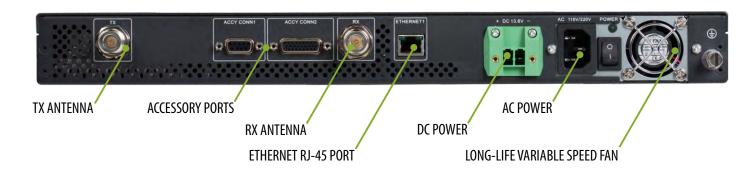
The HR1062 is a new state-of-the-art radio repeater, providing a more efficient and reliable experience with outstanding performance, compact size, flexible power options, and unparalleled system interconnect capabilities.

# THE NEW STANDARD OF QUALITY AND PERFORMANCE

- 1U Compact Form Factor
- Outstanding Performance and Reliability
- Flexible Interconnection to SIP Phones and Trunking Systems
- Integrated AC Power Supply with AC/DC Auto Switch







### **INNOVATIVE FEATURES**



#### **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 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, IP Connect, and XPT 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**

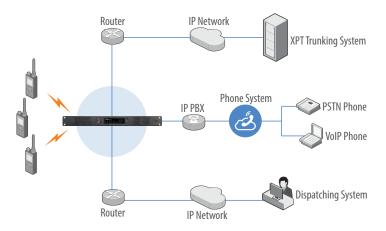
The HR1062 supports Digital End-to-End and Overthe-Air Encryption. This optional software-based encryption uses the secure and reliable ARC4 and AES encryption algorithms.

# THE NEW STANDARD IN RADIO NETWORK CONNECTIVITY



#### **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 HR106X can provide inter-system connectivity to SIP and VoIP Phones, dispatching systems, and DMR Tier II, and XPT Trunking Systems.



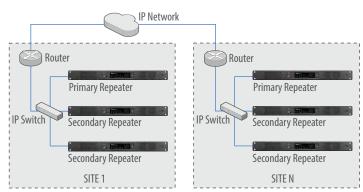
#### **Back-to-Back**

A back-to-back solution provides a cross-band communication IP Link between two repeaters to enable connectivity to analog and digital radios, or radios with different frequencies. The RD1062 supports 100% duty cycle that is ideal for heavy call traffic applications.



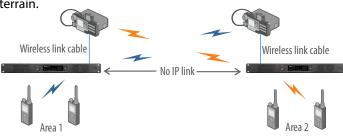
#### **XPT Trunking System (License Required)**

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 can provide a wireless link between the repeaters in remote locations with uneven terrain.



## **SPECIFICATIONS**

General	
Frequency Range	UHF 400-470MHz , VHF 136-174MHz
Channel Capacity	64 Channels
Channel Spacing	12.5kHz / 20kHz / 25kHz
Operational Voltage	DC: 13.6V ±15% AC: 100-120V
Current Consumption	DC: Standby ≤0.9A, Transmitting ≤12A AC: Standby ≤0.35A, Transmitting ≤1.2A
Weight	17lb, 10oz (8.0 kg)
Dimensions (HxWxD)	Standard 1U: 13/4" x 19" x 143/4" (44 x 483 x 366mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Networking	Analog and Digital Conventional, DMR Tier II, IP Connect, and XPT Trunking
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
Later and Later	TIA-603: 75dB@12.5/20/25kHz
Intermodulation	ETSI: 70dB@12.5/20/25kHz
Blocking	ETSI: 70dB@12.5/20/25kHz 90dB
Blocking	90dB
Blocking Hum and Noise	90dB 40dB@12.5kHz, 43dB@20kHz, 45dB@25kHz

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



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Transmitter		
RF Power Output	5-50W 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 <sup>TM</sup>	
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)	

Ordering Information	
HR1062-U1	DMR Blade Repeater UHF 400-470MHz, 5-50W, DMR Tier II & Analog Conventional Mode
HR1062-V1	DMR Blade Repeater VHF 136-174MHz, 5-50W, DMR Tier II & Analog Conventional Mode

The HR1062 ships with a standard AC power cable.

# **OPTIONAL ACCESSORIES**

Contact your Hytera dealer for additional optional accessories.



**Programming Cables** 



**External Duplexers** 



Back-to-Back Cables



PS22002 External Power Supply



SM09D1 External Speaker



SM10A1 Desktop Microphone