

ALL-ROUND INDOOR COVERAGE

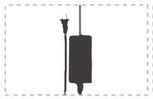
With its integrated and compact structure the HR655 provides a breakthrough in addressing the challenges of site installation. Tailored installation accessories for wall mounting remove the site deployment limitations like the lack of an electrical room and limited space. Featured with 25W high RF power and IP multi-site networking, HR655 delivers the all-round reliable DMR signals to each floor of the high-rise building. HR655 trustworthy voice and data communication offers unlimited connections for each floor, which are the keys to achieve your business success.

ACCESSORIES

Standard ☐ Optional ⬚


Power Cord


Battery*


Power adapter


Programming cable


Palm Microphone


Backpack


Wall-mount kit


External duplexer cable


Built-in duplexer


Antenna UHF-M

* will be released in Dec. 2022

SPECIFICATIONS

General		
Frequency Range	400-470MHz	
Channel Capacity	1024	
Channel Spacing	12.5kHz/ 20kHz/ 25kHz	
Operating Voltage	DC: 14.4V±15%	
Current Consumption(DC)	Standby: ≤0.35A Transmitting: ≤6A	
Battery	12.5Ah	
Battery Life (50-50 Duty Cycle)	High power 25 W version: 4hrs Low power 10 W version: 9hrs	
Frequency Stability	≤ ±0.5ppm	
Antenna Impedance	50Ω	
Duty Cycle	100%	
Dimensions (H x W x D)	High power 25W verison: 201mm x 211mm x 80.6mm(with Fan) Low power 10W verison: 201mm x 211mm x 65.8mm	
Weight	High power 25W Version: 2.0kg Low power 10W Version: 1.9kg	
Networking	Single-site repeater Mode, IP Multi-site Mode	
Receiver		
Sensitivity	Analog	0.18μV(12dB SINAD) 0.16μV(typical)(12dB SINAD)
	Digital	0.18μV/BER5%
Adjacent Channel Selectivity	TIA-603	65dB@12.5kHz/75dB@20/25kHz
	ETSI	60dB@12.5kHz/70dB@20/25kHz
Inter-modulation	TIA-603	75dB@12.5/20/25kHz
	ETSI	70dB@12.5/20/25kHz
Spurious Response Rejection	TIA-603	80dB@12.5/20/25kHz
	ETSI	80dB@12.5/20/25kHz
Blocking		90dB
Hum and Noise		40dB @ 12.5kHz; 43dB @ 20kHz;45dB @ 25kHz
Rated Audio Distortion		≤3%
Audio Response		+1~-3dB
Conducted Spurious Emission	Operating	≤ 1GHz ≤-57dBm
	Standby	>1GHz ≤-47dBm

Transmitter		
Output Power	High power 25W version	1-25W (Continuous adjustable)
	Low power 10W version	1-10W (Continuous adjustable)
FM Modulation	11K0F3E@12.5kHz 14K0F3E@20KHz 16K0F3E@25kHz	
4FSK Digital Modulation	12.5kHz(only data) :7K60FXD 12.5kHz(both data and voice) :7K60FXW	
Conducted/Radiated Emission	Operating: -36dBm≤1GHz; -30dBm>1GHz Standby: -57dBm≤1GHz; -47dBm>1GHz	
Modulation Limiting	±2.5kHz@12.5kHz ±4.0KHz@20KHz ±5KHz@25KHz	
FM Hum & Noise	40dB @ 12.5kHz; 43dB @ 20kHz; 45dB @ 25kHz	
Adjacent Channel Power	60dB@12.5/20kHz 70dB@25kHz	
Audio Response	+1~-3dB	
Audio Distortion	≤3%	
Digital Vocoder Type	AMBE+2™	
Environment Performance		
Operating Temperature	-30°C~+60°C	
Storage Temperature	-40°C~ +85°C	
Humidity	Per MIL-STD 810G	
ESD	IEC 61000-4-2(Level 4) ±8KV (contact) ； ±15KV (air)	
Dust and Water Intrusion	25W: IP54 High power 25 W version: IP54 10W: IP67 Low power 10 W version: IP67	
Positioning		
Positioning System	GPS, GPS+BDS	
Horizontal Position Accuracy	<5m	
TTFF Cold Start (Time to First Fix)	<1min	
TTFF Hot Start (Time to First Fix)	<1sec	

Hytera Communications Europe
939 Yeovil Road, Slough, Berkshire, SL1 4NH
info@hytera-europe.com | www.hytera-europe.com

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PROFESSIONAL DMR REPEATER HR655

EMPOWER YOUR OPERATION

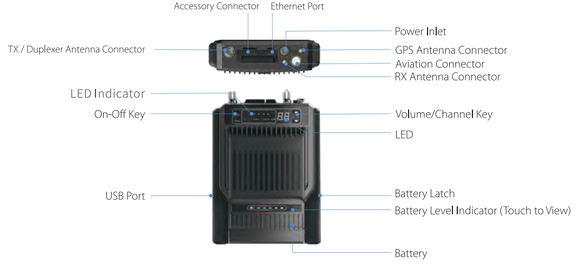
www.hytera-europe.com



Hytera HR655 is the new generation business-ready digital repeater designed to expand the communication range of your DMR radios. High performance and reliability ensures the HR655 provides the consistent, reliable and seamless voice and data communications your team needs most. It is a top pick for hotels, office buildings, supermarkets, industrial parks, and more.

Compact and lightweight, the HR655 can be flexibly wall mounted or carried on the back by tailored accessories to meet various installation requirements. The rugged design enables the HR655 to withstand harsh environments. HR655 allows communication connections anywhere you need.

Two versions are supported:
1. High power 25 W version with an attached fan
2. Low power 10 W without fan



FLEXIBLE DEPLOYMENT

The innovative structural design gives the repeater unprecedented appearance and lightweight performance. With its compact body and built-in duplexer, the HR655 has space conservation in mind. For sites with challenging installation requirements the HR655 has mounting accessories to provide the right solution. As long as there is a wall or limited plane the HR655 can be easily mounted. For outdoor working the lightweight HR655 makes it effortless to carry on the back, thus greatly reducing the burden and cost. For indoor coverage the HR655 with its super slim size and minimal site requirements can easily deliver digital signal services to each of your work floors.



EXTENDED RADIO COVERAGE

The HR655 features industry-leading RX sensitivity and 25 W output power, easily increasing the effective communication range for DMR radios. By covering more area with fewer repeaters, the total cost of ownership is consequently reduced. All key information is delivered to every corner of your wider work space.





HIGH RELIABILITY

The HR655 is built to outperform in harsh environments. It conforms to MIL-STD-810 G standards for ruggedness, and is IP67 rated (for 10 W HR655) or IP54 (for 25 W HR655) for dust and water intrusion.

Designed to operate on an AC power source or an optional battery, the HR655 can keep running in the event of a power outage. When it connects to the power supply, the battery works as a backup. In case of an outage, the 12.5Ah battery is ready to power the HR655 for up to 9 hours at 10 W output or four hours at 25 W output with a 50% duty cycle. Moreover, benefiting from the latest fast charging technology, the battery can be fully charged in just 3.5 hours. HR655 gives you a durable communication for a longer time.

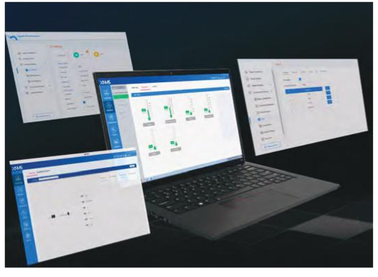


SMOOTH TRANSMISSION

The HR655 can operate in analogue mode, DMR mode, or dynamic mixed digital/analogue mode, which automatically switches between analogue and digital based on the call it receives. This repeater is the ideal solution for you to migrate smoothly from analogue to digital with minimal disruption and investment.

CONVENIENT MANAGEMENT

Thanks to the Extended Network Management System (XNMS), you can remotely monitor the operation status and alarms of the HR655 in real time, or update its configuration in minutes. This dramatically reduces the time and resources to maintain repeaters dispersed in different places.



IP MULTI-SITE CONNECT

From the small region single site DMR conventional system, to large region IP Multi-site system, the HR655 delivers powerful and stable communications to every corner of your workplace. It can also interconnect with other Hytera repeaters, building a tailored network to meet your different requirements.

