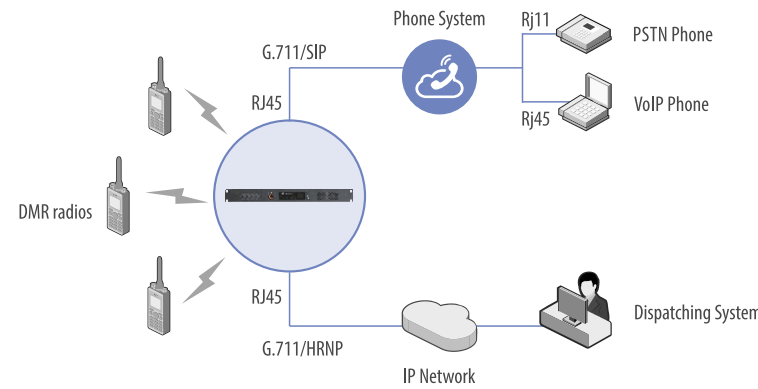


GENERAL SOLUTIONS

Hytera offers a wide range of solutions to enrich functionality for the HR1065 series repeater. A gateway for dispatching and phone systems and a back to back solution for cross-band communication. Additionally the open API of HR1065 can also be provided for third party development to realise customisation requirements.

Flexible Interconnection

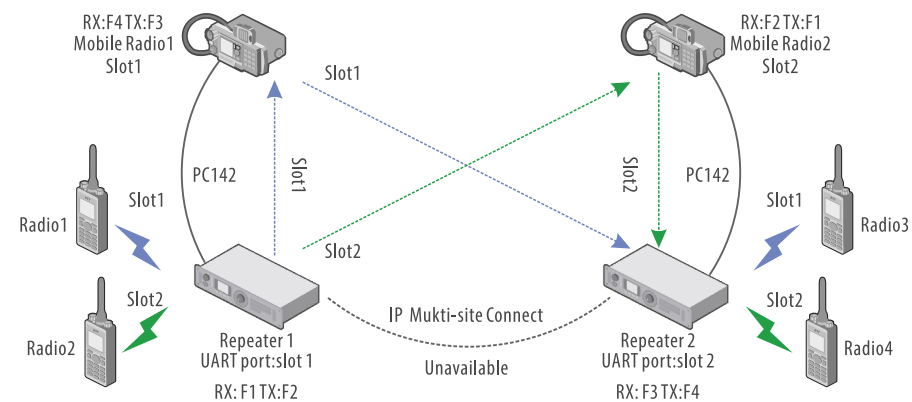
The HR1065 series repeater is designed as an intelligent communication platform. It is flexible in its ability to connect with a variety of systems to provide seamless communication. The repeater can work as a gateway to connect the radio to VoIP phone, and dispatcher.



Wireless Link Communication

With the help of Hytera mobile radio HM785 it is possible to establish wireless connections between two systems when there is no IP link and IP Multi-site connect is not possible. Voice, data and signalling are transmitted over the air via the mobile radio connected by cable to the repeater.

It is recommended to deploy directional antennas for the mobile radios and omni-directional antennas for the repeaters to ensure reliable communication.



ACCESSORIES

Standard



AC Power Cable



DC Power Cable connects to battery or DC power supply

Optional



External Duplexer



Back-to-Back cable connects two repeater to realize cross-band or analog and digital communication



Programming Cable PC37



Backup Cable connects mobile radio and repeater for wireless link solution



Feeder connects external duplexer and repeater



1/2 RF connector



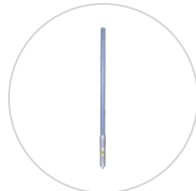
Lightning arrester



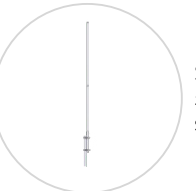
Sinclair, Yagi directional SY350, UHF, 9.6dBi, 150W N-Connector, length<1.1m,air transportation.



Sinclair, Yagi directional SY250, VHF, 9.1dBi, 200W N-Connector, length<3m,air transportation.



Sinclair, SC366 series, UHF, 8.1dBi, 500W DIN-Connector, Length<3m, air transportation.



Sinclair, EC245 series, VHF, 6.6dBi, 12.5W N-Connector, Length<5m, 2-sections, air transportation.

SPECIFICATIONS

General	
Frequency Range	UHF : 400-470MHz VHF: 136-174MHz
Channel Capacity	64
Channel Spacing	12.5KHz/ 20KHz/ 25KHz
Operating Voltage	DC: 13.6V±15% AC: 100-240V
Current Consumption(DC)	Standby: ≤0.9A Transmitting: ≤12A
Current Consumption(AC)	Standby: ≤0.35A Transmitting: ≤1.2A
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Dimensions(H×W×D)	44×483×366 mm
Weight	5.8kg
Networking	Conventional Mode *Digital Trunking Lite; *Simulcast <i>*marked features are coming soon.</i>

Receiver		
Sensitivity	Analog	0.18μV(12dB SINAD) 0.16μV(Typical)(12dB SINAD)
	Digital	0.2μV/BER5% 0.18μV(Typical)/BER5%
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

Transmitter		
RF Power Output	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	
	Operating	≤1GHz -36dBm >1GHz -30dBm
Conducted/Radiated Emission	Standby	≤1GHz -57dBm >1GHz -47dBm
	Modulation Limiting	±2.5kHz @ 12.5kHz; ±4.0kHz @ 20kHz; ±5.0kHz @ 25kHz
FM Hum & Noise	40dB @ 12.5kHz; 43dB @ 20kHz 45dB @ 25kHz	
Adjacent Channel Power	60dB @ 12.5kHz; 70dB @ 20/25kHz	
Audio Response	+1~-3dB	
Audio Distortion	≤3%	
Digital Vocoder Type	AMBE+2™	
Digital Protocol	ETSI-TS102 361-1,-2,-3	

Environmental Specifications	
Operating Temperature	-30°C~+60°C
Storage Temperature	-40°C~+85°C

All Specifications are tested according to applicable standards, and subject to change without notice due to continuous development.



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



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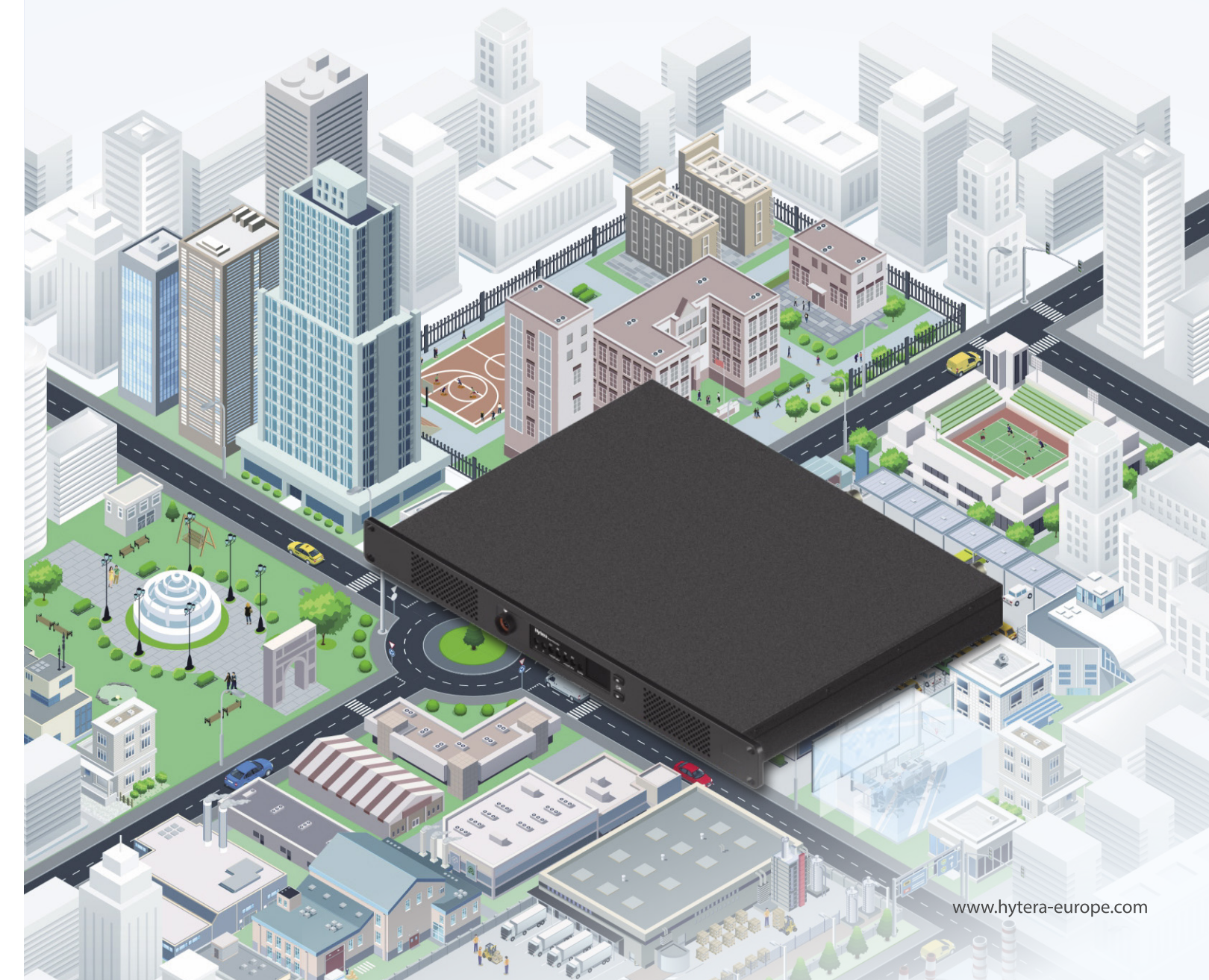
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EMPOWER YOUR OPERATION

HR1065

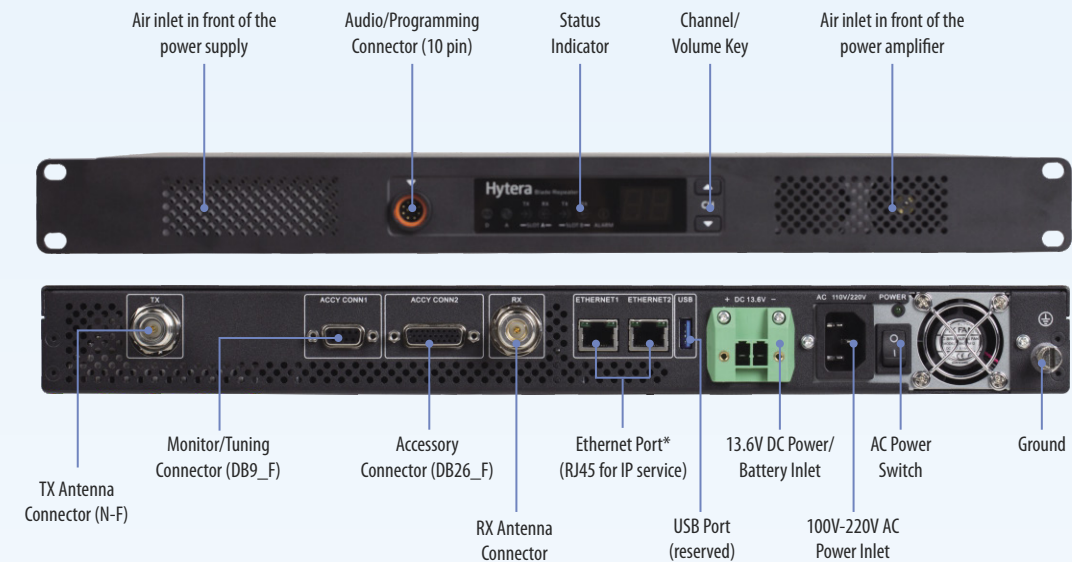
NEXT GENERATION DIGITAL REPEATER



EMPOWER YOUR OPERATION

In order to meet the evolving needs and bring greater value to customers, Hytera continuously evolves and upgrades its products and technologies.

HR1065 improves its functionality and performance while simplifying its network structure and maintenance methods. It has a compact 1U height design, saving installation space, easy for mobile mounting in limited vehicle space. A built-in power adapter supports a 220V AC power supply, providing low deployment cost and an automatic DC/AC power supply switch to easily achieve power backup. The enhanced version adds a co-processor to improve system performance, integrates router and SIP gateway functions, and supports Web-based management, simplifying the network structure and greatly reducing networking and O&M costs.



Connectivity to more applications

* 2nd Ethernet port and USB port are only supported in Enhanced version.

SMOOTH MIGRATION WITH YOUR BUSINESS GROWING

HR1065 series repeaters can be compatible with most Hytera system types: Analogue and Digital Conventional modes, Pseudo trunking mode and DMR Tier 3 trunking system. Whether you want to migrate from analogue to digital mode, or from conventional system to a larger capacity trunking system, HR1065 series repeaters can be unlocked by firmware upgrading and a chargeable license. Simple, smooth and cost-effective.

Customers could purchase HR1065 in conventional mode and upgrade to another mode on demand by license control. This can provide our customer flexible purchase policy and protect the investment on devices.

GENERAL HIGHLIGHTS



Economical Structure

The 1U height of HR1065 makes it compact, reducing space requirements for installation which is quite helpful especially when deploying the repeater in vehicles with limited space such as an SUV.



AC/DC Auto Switch

The HR1065 is equipped with a built-in power adapter that supports 100-220V AC. It also supports connection of a back-up battery which can be connected to the DC input port. The repeater can charge the backup batteries during AC operation and will switch automatically to these if the AC power supply fails to maintain uninterrupted repeater operation.



Analogue & Digital Auto Switch

HR1065 can support mixed channel mode to detect the receiving signal, then automatically switch between analogue and digital mode. This feature offers the compatibility with analogue terminals and an easy way to migrate to digital from analogue to protect legacy investment of devices.




Wide Coverage

The communication range of HR1065 series is extended with enhanced Rx sensitivity. And the Ethernet port enables access to IP networks, which provides the capability for the HR1065 to connect everyone and everywhere.

Users can connect multiple repeaters through IP interfaces to cover larger areas

ENHANCED VERSION HIGHLIGHTS

HR1065 series repeater has two hardware variants, a standard version and an enhanced version. The customer can easily upgrade the standard version to the enhanced version by adding a co-processor board and software upgrade. These variants offer more options for customers according to their actual needs.

Except  the general features which are supported by the standard version, the enhanced version brings more advanced features below.

**The standard version can be easily upgraded to enhanced version with an add-on co-processor module board.*



WEB-based Management

In the enhanced version a web-based back end platform has been designed to simplify repeater management.

Configuration, upgrade and real-time diagnosis can all be completed through a web browser, which is ideal for remote management.



Integrated SIP gateway

The enhanced version of HR1065 is integrated with router and SIP gateway features. Less devices and simplified management. It offers a cost-effective solution for your network construction.



High Security

The enhanced version supports SNMP V3 which is used to manage the repeater from NMS. SNMPV3 use authentication and encryption algorithms to enhance communication security and protect all the data between the repeater and NMS.