

Digital Migration Radio RD625

Wall Mount Repeater for Indoor

Light, Small, Compact Design

RF Power 1~25W with 100% Duty Cycle

DMR & Analogue Auto Switch





RD625 is a 25W, DMR and Analogue dual mode repeater in a compact design, embedded with a mini duplexer and power supply. The innovative design supports wall-mount installation with AC/DC power. With DMR and analogue features this repeater is particularly suitable for a cost-effective digital migration. Multiple sites can connect via IP to support flexible wide area and large building coverage, both indoor and outdoor.

Highlights

- Three-in-one integrated repeater: RF, Power supplier and Duplexer built in.
- RF power 1~25W with 100% duty cycle.
- DMR & Analogue auto switch.
- Light and easy to wall mount.
- AC/DC switch without breaking.

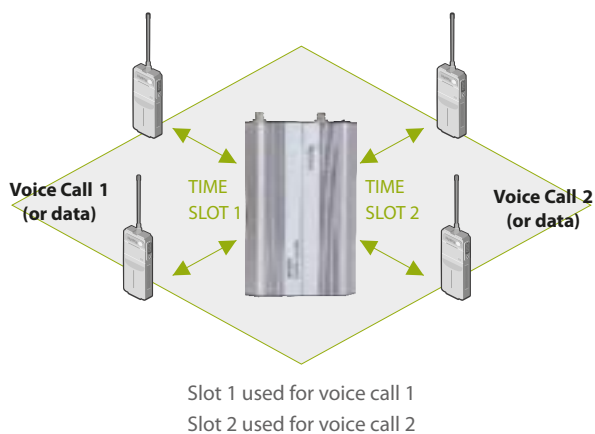
Features

Multiple Sites via IP

RD625 supports network connection via the IP port to form a private radio network for voice and data communication suitable for wide-area coverage and dispersed locations.

Digital Audio Streaming of Dual Time Slots

RD625 supports the streaming of 2 voice slots via the rear port accessory pins, allowing for capability expansion via future development.



Analogue/Digital Operating Mode

RD625 supports operation in Analogue and Digital modes.

Analogue Scan

The RD625 supports Analogue voice and signalling scan, allowing coverage for analogue voice users from different groups.

Repeater Diagnostic And Control (RDAC)

RD625 supports remote IP connection to monitor, diagnose and control the repeater, thus increasing maintenance efficiency. The Hytera developed RDAC is able to support multiple master network connections to allow the radio administrator to monitor multiple radio networks.

AC/DC Auto Switch

RD625 integrates an internal power supply that supports a battery floating charge. The power supports 13.6V±15% DC and 90V-264V AC. If the AC power is cut off, the DC power (battery) automatically takes over without interruption.

Analogue/Digital Back-to-Back Interconnect

RD625 supports different Analogue and Digital operating modes allowing interconnection for voice cross patch and enabling Analogue users to communicate to Digital users and vice versa. This ensures a smooth migration for analogue users to the digital world!

Multi CTCSS/CDCSS Decode

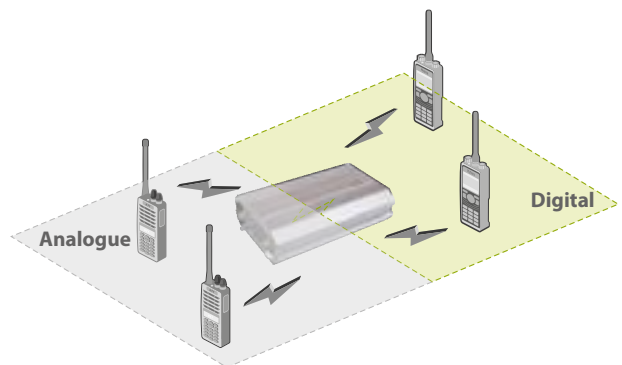
RD625 supports decoding up to a maximum of 16 CDCSS/CTCSS codes in analogue channels, allowing coverage for different analogue voice users from various groups

Analogue/Digital Telephone Interconnect

RD625 supports simplex voice communications between radio and telephone users. It allows a radio user to make a telephone call; or a telephone user to make either a Group or Private call to radio users. This feature utilizes the Commercial off the Shelf (COTS) Analogue Phone Patch boxes and a Plain Old Telephone Service (POTS) line to connect the Repeater to the Corporate Office Telephone System (PBX) or Public Switched Telephone Network (PSTN).

Analogue/Digital Auto Switch

RD625 supports Analogue and Digital channel auto switching, allowing for efficient frequency sharing between Analogue and Digital users and an easy digital migration.



All-In-One Compact Design

RD625 compact design, integrates RF, power supply, and duplexer into one box, which makes this repeater smaller, lighter, and easier for wall-mount installation and indoor coverage.

Repeater Access Management

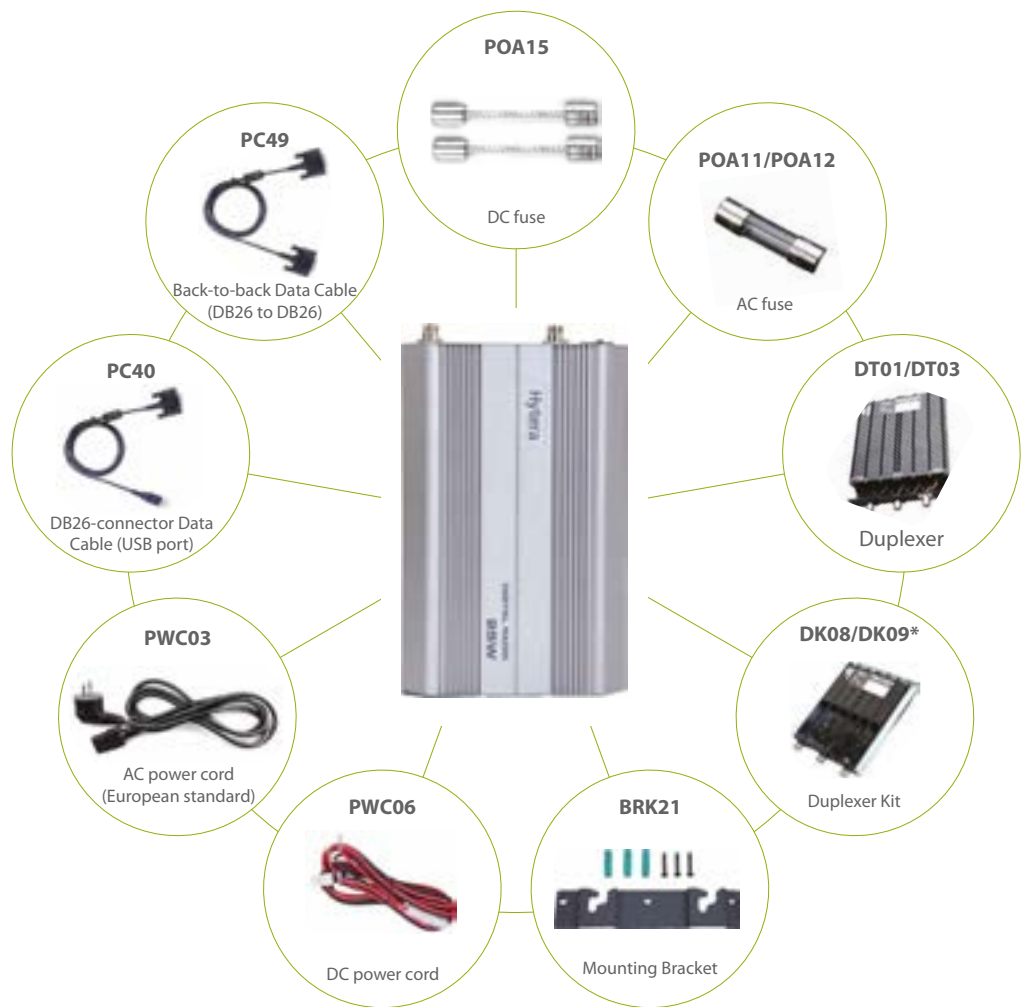
RD625 supports a repeater access control feature allowing better security to prevent unauthorized users from accessing the radio network.

Target Market

Hotels Shopping Malls Hospitals Schools



Accessories



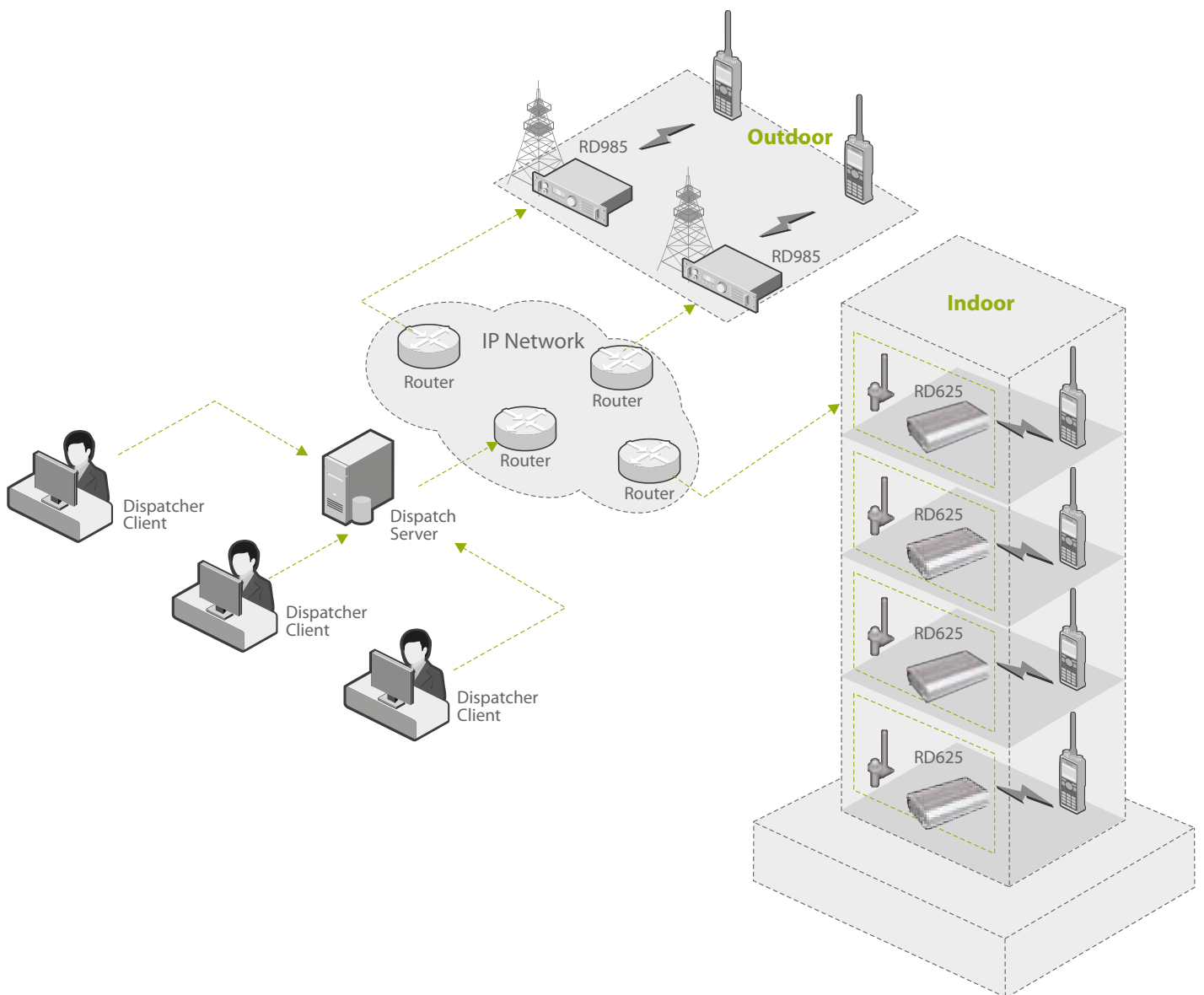
*DK08: Frequency Range: 400-470MHz; Frequency Spacing: 5-20MHz
 DK09: Frequency Range: 136-174MHz; Frequency Spacing: 4.5-13MHz

Pictures above are for reference only and may vary from actual products.

Network Solution

An example of an integrated IP multi-site network solution is detailed in the following illustration: RD625, RD985, and Dispatching System connect with IP network providing good signal coverage and dispatching features. This will greatly improve work efficiency, communication convenience and resource management.

- RD985 provides large outdoor coverage with high RF power;
- RD625 provides indoor and some outdoor area coverage with compact design and easy installation;
- Hytera Smart Dispatch system provides dispatching functionalities, such as selective voice calls, voice recording, GPS tracking, alarm management, etc.



Specifications

General		
Frequency Range	136-174MHz, 400-470MHz	
Channel Capacity	16	
Channel Spacing	25KHz/20KHz /12.5KHz	
Operating Voltage	13.6 ± 15%V DC 90V-264V AC	
Current Drain	Standby: ≤0.5A Transmit: ≤5.5A	
Frequency Stability	± 0.5 ppm	
Antenna Impedance	50 Ω	
Duty Cycle	100%	
Dimensions (W*H*D)	210x348x108mm	
Weight (with Duplexer)	5Kg	
Receiver		
Sensitivity	Analog	0.3μV (12dB SINAD) 0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD)
	Digital	0.3 μV/BER5%
Adjacent Channel Selectivity	TIA603	65dB @ 12.5KHz /75dB @ 20/25KHz
	ETSI	60dB @ 12.5KHz /70dB @ 20/25KHz
Inter Modulation	TIA603	75dB @ 12.5/20/25KHz
	ETSI	70dB @ 12.5/20/25KHz
Spurious Response Rejection	TIA603	75dB @ 12.5/20/25KHz
	ETSI	≥70dB @ 12.5/20/25KHz
Blocking	TIA603	90dB
	ETSI	84dB
Hum and Noise	40dB @ 12.5KHz; 43dB @ 20KHz; 45dB @ 25KHz	
Rated Audio Distortion	≤3%	
Receiver Audio Response	+1~-3dB	
Conducted Spurious Emission	≤-57dBm	

Transmitter	
RF output Power	1-25W Continuous
FM Modulation	11K0F3E @ 12.5KHz 14K0F3E @ 20KHz 16K0F3E @ 25KHz
4FSK Digital Modulation	12.5KHz data: 7K60FXD data & voice: 7K60FXW
Conducted/Radiated Emission	-36dBm < 1GHz -30dBm > 1GHz
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++ or SELP
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 subject to change without notice due to continuous development.



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