

## Specifications

General		Transmitter	
Frequency Range	400-470MHz	RF Power Output	5-50W (continuous)
Channel Capacity	1	FM Modulation	16KΦF3E @ 12.5 kHz 14KΦF3E @ 20 kHz 11KΦF3E @ 25 kHz
Channel Spacing	25/20/12.5 kHz	4FSK Digital Modulation	12.5kHz (Data Only): 7K6[EXD 12.5kHz (Data & Voice): 7K6[EXE
Operating Voltage	13.6 ± 15% V DC	Conducted / Radiated Emission	-36dBm <1GHz -30dBm >1GHz
Current Standby (Max.)	0.8A	Modulation Limiting	± 2.5kHz @ 12.5 kHz ± 4.0 kHz @ 20 kHz ± 5.0kHz @ 25 kHz
Drain Transmit (Max.)	11A	FM Noise	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
Frequency Stability	± 0.5ppm	Adjacent Channel Power	60dB @ 12.5 kHz 70dB @ 20/25kHz
Antenna Impedance	50Ω	Audio Response	+1 ~ -3dB
Duty Cycle	100%	Audio Distortion	3%
Dimensions (W*H*L)	483 X 88 X 366 mm	Digital Vocoder Type	AMBE++/SELP
Weight	8.5 Kg	Digital Protocol	ETSI-TS102 361-1, 2&3
LCD Display	220*176 pixels, 262,000 colors	Environmental Specifications	
Receiver		Operating Temperature	-30°C ~ +60°C
Sensitivity (Analog)	0.3 μV (12dB SINAD) 0.22 μV (typical) (12dB SINAD) 0.4 μV (20dB SINAD)	Storage Temperature	-40°C ~ +85°C
Sensitivity (Digital)	0.3uV/BER5%	All specifications are tested according to applicable standards, and subject to change without notice due to continuous development.	
Adjacent Channel Selectivity TIA-603 ETSI	65dB @ 12.5 kHz / 75dB @ 20/25 kHz 60dB @ 12.5 kHz / 70dB @ 20/25 kHz		
Intermodulation TIA-603 ETSI	75dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz		
Spurious Response Rejection TIA-603 ETSI	85dB @ 12.5/20/25 kHz 80dB @ 12.5/20/25 kHz		
S/N	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz		
Rated Audio Power Output	0.5W		
Rated Audio Distortion	3%		
Audio Response	+1 ~ -3 dB		
Conducted Spurious Emission	-57 dBm		



# RD985

## Digital Repeater

As a product built to the DMR standard, the RD985 series repeater is engineered with the end-user in mind, ergonomic design, reliable performance and exceptional digital features to deliver an advanced communication solution. RD985, your digital advantage to beat the competition!



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## Technical Features >>



### Dual-Mode Operation and Auto-Switch\*

The repeater can operate in digital or analog mode, allowing you to enjoy digital delights without worrying about its compatibility with your existing analog system. What's more, it can switch between digital and analog modes intelligently based on the type of signals received from subscriber radio, saving you the trouble of manually configuring frequency or channel.

### 100% Duty Cycle

The repeater is capable of 100% duty cycle at full power (50W), meeting demanding requirements of any conventional or trunking system.

### Flexible Installation

The repeater can be perfectly mounted in a 2RU/19" standard cabinet. Alternatively, you can choose to mount it in a rack, bracket or on a desk with ease. In addition, the space reserved inside the repeater for an optional duplexer helps it maintain a compact body.



### High Frequency Spectrum Efficiency

Benefiting from TDMA technology, the repeater allows twice the users to share the same channel, compared with analog or FDMA digital systems. This is a big help to relieve the stress of increasing shortage in spectrum resource, and to save your costs on system equipment and frequency license.

### Secure Communication

The RD985 is furnished with an enhanced digital encryption capability. Eavesdropping issues are no longer a problem now that your communications are fully secured.

### Superb Cooling Performance

Levering on the built-in heat pipe, the power amplifier can dissipate its heat at exceptional rate. Additionally, the heatsink is also equipped with a cooling fan, ensuring stable operation of the transmitter at high power.



### Repeater/Base Mode Operation

When the repeater operates on an analog channel, you can choose to make it operate in Repeater mode or in Base mode. In the latter mode, the repeater can be used as a duplex transceiver.

### Solid Reliability

As a modularized product built to military standard, the repeater can deliver solid reliability and remarkable performance for a long time. The test result from a 3rd party lab proves that its MTBF (Mean Time Between Failures) runs up to 100,000 hours, meeting demanding requirements in harsh environments.

## Industrial Design Features >>

### 2RU

Standard 19" , 2RU rack-mount design, compatible with desktop housing as well

### LED

Colored LEDs for clear status indication

Advanced heat sink design with thermal-controlled cooling fan

Ergonomics handle design makes handling more comfortable



Programmable buttons for customized application

2.0" TFT LCD and menu navigation knob to facilitate service and maintenance



Internal installation for mobile duplexer

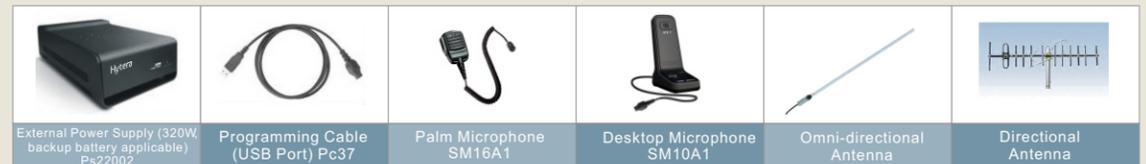
## Standard Accessories >>



Duplexer Installation Kit

Power Cord

## Optional Accessories >>



External Power Supply (320W, backup battery applicable) Ps22002

Programming Cable (USB Port) Pc37

Palm Microphone SM16A1

Desktop Microphone SM10A1

Omni-directional Antenna

Directional Antenna