



R-80 Digital Repeater

- ◆ Tier-2 DMR Standard of ETSI TS102-361.
- ◆ TIA/EIA-603C and MIL-STD-810 Standard.
- ◆ Maximal power 25W/50W, increases the communication distance and reliability.
- ◆ Unaffected sensitivity even under transmitting mode with full power.
- ◆ Many technology patents applied.
- ◆ Fast transmitting for analog signaling and sub-tone signaling, support CDCSS grouping at same frequency.
- ◆ Base station mode and dispatcher mode available.
- ◆ Communication between radios and cable telephone (PABX/PSTN) and mobile phones.



Modular design and optimized RF performance, easy maintenance

Extended Functions

- ◆ Auto-configuration, Self-diagnostic, Remote monitor and Network management (Monitor system software need).
- ◆ Via Ethernet network, connect with GPRS/ CDMA/ 3G/ 4G/ LTE/ WIFI wirelessly (Extend to support the wireless IP network), support IP soft switch and multiple sites networking.
- ◆ Support normal analog signaling, MDC1200 signaling could be extended.

R-80 repeaters is a high performance and professional digital/analog repeater adopting modular design, which integrates the high performance RF module, main control board and high-efficiency switching power supply and duplexer can be inlayed. Besides it has many good specifications like small size (2U), strong and compact structure, environmental adaptability and easy installation. As the modular design, R-80 repeater not only has a good performance but also is easy to repair, exchange and upgrade every module, reducing the usage cost to be most for you. Meanwhile the modularized combination and open interface is easy to standardize and exchange, which can get more supports from other manufactories.

R-80 repeater transmits both DMR and analog signals, support multiple signaling and local calls (used as a base station with speaker microphone). Besides, R-80 extends coverage by support the communication with cable telephone and mobile phones, also support the network by multiple stations via Ethernet, provide you the solution for big area coverage with low cost.

General Specifications:

Frequency	136-174MHZ, 400-470MHZ, 470-512MHZ	
Channel Spacing	25 kHz/12.5 kHz	
Voltage Requirements	100~264VAC~50/60Hz	
Antenna Port Spurious Emission 9KHz~1GHz:	≤-36dBm、TX Mode	≤-57dBm、standby mode
1GHz~12.75GHz:	≤-30dBm、TX Mode	≤-47dBm、standby mode
Case Port Spurious Emission 9KHz~1GHz:	≤-36dBm、TX Mode	≤-57dBm、standby mode
1GHz~12.75GHz:	≤-30dBm、TX Mode	≤-47dBm、standby mode
Antenna Impedance	50Ω	
Speaker Impedance	40Ω	
Operating Temperature Range	-10°C~+55°C	
Size (L*W*H)	482mm×440mm×89mm	
Weight	≤15KG	

Safety Specifications:

Insulation Resistance	≥100MΩ (Testing Voltage DC500V) , Insulation Resistance in Hot flashes Environment≥2MΩ
Dielectric Strength	Withstanding Alternating Voltage 1000V (Leakage Current≤5mA) , 1min, NO Breakdown Flashover and Corona

Receiver:

Digital Sensitivity (BER5%)	≤-117dBm
Adjacent Channel Selectivity	≥65dB
Intermediation Disturbance Rejection	≥70dB
Intermediation Disturbance Rejection	≥90dB
Audio output power	3.0W

Transmitter:

Frequency Stability	≤2.5 ppm
Transmitting Power	25W/50W
Adjacent Channel Power	±12.5kHz: ≤-60 dB, ±25kHz: ≤-70 dB
Transient Switchover Adjacent Channel Power	±12.5kHz: ≤-50 dB, ±25kHz: ≤-60 dB
Modulation	4FSK
4FSK Digital Modulation	Date 7K60FXD、Date plus voice 7K60FXW
Digital Speech Encoder	AMBE++
Transmitting Bit Error Rate	≤1.5%

