

## RDR9000 Series DMR Digital Repeater



Expand your coverage with  
the RCA RDR9000 Series  
Professional Repeater!



The RDR9000 is high performance repeater completely built according to the DMR Standard. It supports Analog, DMR Digital and mixed-mode operation, as well as multi-site IP connectivity.

Fully compatible with your existing Analog and Digital radios, the RDR9000 series combine the best of both, the legacy Analog and the new, improved Digital two-way radio technology, giving you the flexibility to upgrade to Digital at your own speed or simply expand your radio fleet.

With its flexibility the RDR9000 repeater can be used in a wide range of applications such as construction, manufacturing, warehousing, construction, medical facilities, hotels, schools and colleges.

**RELIABLE, MILITARY MODULAR SOLUTION** Highly reliable military modular design providing 100% duty cycle performance with up to 40 Watts of Power output respectively in UHF and VHF.

**CROSS-BRAND COMPATIBILITY** Designed strictly according to the Digital DMR ETSI Standard TS 102 361-1,-2,-3, the RDR9000 repeater is compatible with all RCA two-way radios as well as all other major brands, including digital equipment, such as the Motorola MotoTrbo<sup>™</sup> and Vertex eVerge<sup>™</sup> series two-way radios.

**COMPACT 1RU DESIGN** Small form factor design with only 1U (1.75 inch) in height and standard 19 inch cabinet size in width. The RDR9000 takes 1/3 of the rack space comparing to comparable repeaters from other leading manufacturers.

**UPGRADE TO DIGITAL AT YOUR OWN SPEED** Analog and Digital operation will give you the flexibility to upgrade to Digital at your own speed, without sacrificing safety and keeping your business operations running smoothly during the transition period.

**MULTI-SITE IP CONNECTIVITY** The RDR9000 repeaters support multi-site IP connectivity allowing you to connect multiple repeater to form single wide area coverage network as well providing optional cross band communication functionality.

**INDUSTRY LEADING WARRANTY** The RDR9000 repeaters are backed standard by an industry leading, hassle-free Three (3) Year Warranty.

**RDR9000 SPECIFICATIONS**



**RDR9000 Repeater Highlights:**

- DMR Digital / Analog / Mixed Mode Operation
- Two Simultaneous Talk Paths (DMR)
- PRODIGI™ Plus Compatible
- Multi-Site IP Connectivity
- Cross-Brand Compatibility
- Up to 40 Watts of Power UHF / VHF
- 100% Duty Cycle
- Compact 1U Design
- Built-In Power Supply
- Industry Leading 3 Year Warranty

GENERAL SPECIFICATIONS	
Model	RDR9000
Channel Numbers	32
Channel Spacing	12.5KHz / 25KHz
Operating Voltage	DC 13.6 ± 15% / AC 100-240VA
Frequency	VHF: 136-174MHz / UHF: 400-470Mhz UHF: 350-400Mhz
Operating Temperature	-30°C ~+60°C / -22°F ~+140°F
Storage Temperature	-40°C ~+85°C / -40°F ~+185°F
Weight	7.6kg / 16.75 lb.
Size: HxWxD (inches)	1.7" x 19" x 17.7"
LCD	1.8 inches / 128x160 pixels, TFT color LCD
Current Drain	Standby: <1A Transmit: <11A
Shock & Vibration	MIL-STD-810 C/D/E/F/G standard
Continuous duty Cycle	100%
ESD	IEC 61000-4-2(level 4) ±8KV (Contact) ,±15KV (Air)
Surge Immunity Test (EN 6100-4-5)	Differential Mode:6KV Common Mode:6KV
Emission Designators	6K12F3E, 10K0F3E, 11K0F3E, 7K50FXW, 7K50FXD, 7K60FXW, 7K60FXD, 8K02FXD, 8K02FXW

RECEIVER	
Digital Sensitivity	-120dBm/BER 5% /-116dBm/BER 1%
Digital Dynamic Faded Sensitivity	(100KM/H& 8KM/H Rayleigh Fading) -104dBm
Analog Sensitivity	-120dBm/12dB SINAD
Intermodulation	75dB (TIA603) /70dB(ETSI)
Blocking	95dB (TIA603 & ETSI)
Spurious Response Rejection	75dB (TIA603 & ETSI)
Selectivity	75dB@25 KHz(TIA603&ETSI) /65dB@12.5KHz(TIA603&ETSI)
Conducted Spurious Emission	-57dBm
Rated Audio Power	1W
Rated Audio Distortion	3%
Hum and Noise	45dB @25KHz /40dB@12.5KHz
Audio Response	+1dB ~-3dB
Digital Vocoder Type	AMBE++/NVOC
Digital Protocol	ETSI-TS102 361-1, -2,-3,-4

TRANSMITTER	
Frequency Stability	0.5ppm
RF Power Output	Up to 40 Watts, Programmable
Digital Modulation	7K60FXD(Data Only) /7K60FXW (Data and Voice)
FM Modulation	16K ϕ F3E@25KHz /11K ϕ F3E@12.5KHz
4FSK Modulation Accuracy	5%
4FSK BER	0%
4FSK and Magnitude Error	5% /1%
Adjacent Channel Power	70dB@25KHz /60dB@12.5KHz
Conducted and Radiated Emission	-36dBm <1GHz /-30dBm >1GHz
Transmission Deviation limits	5KHz@25KHz /2.5KHz@12.5KHz
Audio Distortion	3%
Hum & Noise	45dB@25KHz /40dB@12.5KHz
Audio Response	+1dB~-3dB

