

## RDR9000 Series DMR Digital Repeater



The PRODIGI<sup>™</sup> RDR9000 is a 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 DMR 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, the PRODIGI<sup>™</sup> 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 DMR 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.



Expand your coverage with the RCA RDR9000 Series Professional Repeater!



**RDR9000 SPECIFICATIONS**



**RDR9000 Repeater Highlights:**

- DMR Digital TII Conventional
- Analog Conventional
- Conventional Mixed Mode Digital/Analog
- PRODIGI™ Plus Mode Compatible
- PRODIGI™ Plus Trunking\*
- Two Simultaneous Talk Paths (DMR)
- 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

\* Optional Features

GENERAL SPECIFICATIONS	
Model	RDR9000
Channel Numbers	Up to 128
Channel Spacing	12.5KHz / 25KHz
Operating Voltage	DC 13.6 ± 15% / AC100V-240V
Frequency	VHF: 136-174MHz / UHF: 400-470MHz
Operating Temperature	-22°F (-30°C) / 140°F (60°C)
Storage Temperature	-40°F (-40°C) / 185°F (85°C)
Weight	7.6kg / 16.75 lb.
Size: HxWxD (inches)	1.7" x 19" x 17.7" (44mm x 483mm x 375mm)
Display	1.8 in. / 128x160 pixels, TFT Full Color LCD
Current Drain	Standby: <1A
	Transmit: <6A @ 20W / <10A @ 40W
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, 16K0F3E, 7K50FXW, 7K50FXD, 7K60FXD, 7K60FXW, 7K82FXD, 7K82FXW, 8K02FXD, 8K02FXW

RECEIVER	
Digital Sensitivity	0.22 uV / -120dB @ BER 5% (typical)
Digital Dynamic Faded Sensitivity	(100KM/H & 8KM/H Rayleigh Fading) -104dBm
Analog Sensitivity	0.22 uV / -120dBm @ 12dB SINAD
Intermodulation	>75dB (TIA603) / >70dB(ETSI)
Blocking	95dB (TIA603 & ETSI)
Spurious Rejection	>75dB (TIA603 & ETSI)
Adjacent Channel Selectivity	75dB @25 KHz (TIA603 & ETSI) / 65dB @12.5KHz (TIA603 & ETSI)
Conducted Spurious Emission	-57dBm (<1GHz) / -47dBm (>1GHz)
Hum and Noise	45dB @25KHz / 40dB@12.5KHz
Rated Audio Power	1W @ 160hm
Rated Audio Distortion	<3%
Audio Response	+1dB ~ -3dB
Digital Vocoder Type	AMBE+2™/NVOC
Digital Protocol	ETSI-TS102 361-1, -2, -3, -4

TRANSMITTER	
Frequency Stability	± 0.5ppm
RF Power Output	Up to 40 Watts (Programmable Levels)
Digital Modulation	7K60FXD (Data Only) / 7K60FXW (12.5KHz Data and Voice)
FM Modulation	16K0F3E (25KHz) / 11K0F3E (12.5KHz)
Adjacent Channel Power	70dB @ 25kHz / 60dB @ 12.5kHz
Conducted/Radiated Emission	-36dBm (<1 GHz) / -30dBm (>1 GHz)
Transmission Deviation Limits	5kHz @ 25kHz / 2.5kHz @ 12.5kHz
Hum & Noise	-45dB @ 25KHz / -40dB @ 12.5KHz
Audio Response	+1dB ~ -3dB
Rated Audio Distortion	<3%



**Authorized Dealer:**

