



RCA
Communications Systems

prodigiTM
PROFESSIONAL DIGITAL RADIO PRODUCTS

**INTRINSICALLY
SAFE SERIES**



RDR4330 UHF / VHF

RDR4360 UHF / VHF

RDR4390 UHF / VHF

DMR
DIGITAL MOBILE RADIO ASSOCIATION



*The Intelligent Choice For Digital
Two-Way Communication.*

VERSATILE & AFFORDABLE!

prodigi™
PROFESSIONAL DIGITAL RADIO PRODUCTS

The RCA PRODIGI™ Radio Series is compatible with other DMR Digital radios on the market. Operational in both digital and analog modes, the PRODIGI™ Radio Series delivers crystal clear, dependable communication. RDR4330, RDR4360 and RDR4390 Intrinsically Safe radios are designed to be used at Chemical Plants, Oil Refineries, Gas Mains, Coal Mining, HAZMAT Teams, Industrial Painting, Utility Companies, Environmental Companies, HVAC Companies, and Grain / Sugar Refineries.

RDR4330 / RDR4360 / RDR4390 FEATURES

INTRINSICALLY SAFE RCA RDR4300 Series Intrinsically Safe radios are SGS certified to the requirements of UL 913 5th Ed., TIA 4950-A, CSA C22.2 No. 157-92 Class I, II, III; Div. 1; Groups C-G / Div. 2; Groups A-G; Temp T3C hazardous locations. specifically designed for use where flammable gas, vapors or combustible dust may be present.

ADVANCED MULTI-MODE FUNCTIONALITY With different operating modes — Conventional Analog, Conventional Digital DMR Tier II, Trunked Digital DMR Tier III, Digital DMR based Prodigy Plus™, Trunked Analog MPT 1327; the portable will truly meet even the most demanding communication needs. The RDR4300 Intrinsically Safe series portables deliver fast, reliable communication for a safer and more productive work environment.

CROSS-BRAND COMPATIBILITY Designed according to the Digital DMR ETSI Standard TS 102 361-1,-2,-3, the RDR4300 Intrinsically Safe series portables are compatible with all RCA two-way radios as well as all other major brands, including digital equipment, such as Motorola, Hytera and Vertex series digital two-way radios and repeaters.

TOUGH AND RELIABLE PORTABLES The RDR4300 Intrinsically Safe series portables are designed and built with the most demanding conditions in mind. Your team needs radios that will not fail them, regardless of the working environment. The newest portables in the RCA Prodigy™ product line meet Military Specs 810C, D, E, F, and G and are IP67 rated, fully submersible and dustproof units.

TRUE OPERATIONAL VERSATILITY The RDR4300 Intrinsically Safe series portables come in 3 different models, the standard RDR4330 unit; the upgraded RDR4360 with large, color display and 11 programmable function keys; the advanced RDR4390 unit with large, color display, full keypad and industry leading 23 programmable function keys. Businesses, Departments and Government Agencies can choose the best model for their needs, taking advantage of advanced features such as Caller ID, Group and Private Call, Radio Check, Radio Monitor, Radio Enable/Disable, Emergency, Man Down, Lone Worker Alerts, Text Messaging, Pre-saved Status Messaging, GPS Tracking and more.

IMPROVED COMMUNICATION RANGE Today's digital technology allows for the transmitted signal to stay clear from background noise regardless of the distance between two radio units, providing virtually no deterioration of the voice quality, thus providing larger usable coverage in areas where analog communication will be very poor or not possible at all.

FULL SHIFT PERFORMANCE The RCA Prodigy™ RDR4300 Intrinsically Safe series portables provide up to 40% improved battery performance in digital mode over analog, allowing for longer operating time on a single battery charge. With a typical

duty cycle of 5 (Rx) - 5 (Tx) - 90 (Stand By), the RDR4330 with 2000mAh Lithium Ion battery can provide up to 12 hours of operation in Analog mode and up to 16 hours of operation in Digital mode.

CRYSTAL CLEAR AUDIO Designed with X-Sound+HD™ for exceptional voice quality. The RDR4300 Intrinsically Safe series portables provide loud 1 Watt of audio power, eliminating background noise and static even from analog voice transmissions and delivering crystal clear voice message.

ADVANCED ENCRYPTION OPTIONS Secure communications are essential. The RDR4300 Intrinsically Safe series portables meet today's demand for safe and private voice and data transmissions by providing flexibility to it's users to choose from multiple advanced options. The radios are equipped standard with ARC4 type encryption and available 40-bit, 128-bit or 256-bit advanced encryption options.

AVAILABLE INTEGRATED GPS Location tracking service is available as a built-in functionality. The tracking of your asset's location enables real-time visibility of field operations, resulting in improved worker safety, increased productivity and shortened incident response time.

INDUSTRY LEADING WARRANTY The RDR4300 Intrinsically Safe series portables are backed standard by an industry leading, hassle-free Three (3) Year Warranty.





RDR4330 / RDR4360 / RDR4390 SPECIFICATIONS

Features and Options

- DMR TII Conventional and TIII Single and Multi-Site Trunking Modes
- Prodigy Plus™ Mode*
- Analog Conventional and MPT Trunking Modes
- Direct Mode Operation (DMO)
- 3.5 Watts VHF and UHF
- Group and Private Calling
- TX Override
- Text Messaging
- Scanning & Priority Scanning
- Roaming*
- GPS*
- X-Sound+HD Enhanced Audio Clarity
- Large Color Display
- Up to 23 Programmable Function Keys (model dependant)
- IP67 Design
- MIL-STD 810C, D, E, F, G
- 3 Year Warranty

Emergency / Security Features

- Radio Check
- Remote Radio Monitor
- Radio Kill / Active
- Advanced Digital Encryption Options* (ARC4, Prodigy Advanced Encryption)
- Call Alert
- Emergency Alerts
- Man Down Alert*
- Lone Worker Alert
- Voice Recording*

*Optional Features



GENERAL SPECIFICATIONS	
Model	RDR4330 / RDR4335 / RDR4360 / RDR4365 / RDR4390 / RDR4395
Communication Protocols & Standards	DMR Tier 3 Digital Trunking ETSI-TS102 361-1, -2, -3, -4 Analog MPT Trunking
Frequency Bands	136-174MHz; 400-470MHz
Channel Capacity	32 / 1024 (model dependant)
Channel Spacing	12.5KHz / 25KHz
Operating Voltage	7.4V
Battery Volume	2000mAh (Lithium battery)
Working Time (5-5-90 duty cycle, high TX power)	Analog: >12h; Digital: >16h
Dimensions (Standard battery, not including antenna)	128*55*35.5(H*W*D)
Weight (Standard battery, including antenna)	355±1%g
Frequency Stability	±0.5ppm
LCD Display	160*128pixel, 65535 color, 1.8 inches color screen
GPS	Accuracy<10m, TTFF cold start 1 min / hot start 10 sec
Storage	MicroSDHC, UHS Speed Class U1
Emission Designators	Analog 11K0F3E, 16K0F3E
	Digital 7K60F1D, 7K60F1E

TRANSMITTER	
Power Output	VHF/UHF High power: 3.5W; Low power: 1W
FM Modulation	11K0F3E@12.5KHz
4FSK Digital Modulation	12.5khz Data: 7K60F1D 12.5khz Voice: 7K60F1E
Conducted / Radiated Emission	-36dBm < 1GHz; -30dBm > 1GHz
Modulation Limiting	±2.5KHz@12.5KHz; ±5.0KHz@25KHz
FM Noise	40dB@12.5KHz; 45dB@25KHz
Adjacent Channel Power	60dB@12.5KHz; 70dB@25KHz
Audio Response	+1~-3dB
Audio Distortion	≤3%
Digital Voice Vocoder	AMBE++ or NVOC

ENVIRONMENTAL SPECIFICATIONS	
Operation temperature/ Storage temperature	-30°C~+60°C / -40°C~+85°C
ESD	IEC 61000-4-2 (level 4); ±8KV(contact); ±15KV(air)
Environment Test Standard (Temperature & Fall & Vibration)	MIL-STD-810 C / D / E / F / G
IP Rating	IP67

RECEIVER		
Sensitivity	Analog	0.3µV(12dB SINAD); 0.22µV(Typical value) (12dB SINAD)
	Digital	0.4µV(20dB SINAD) 0.3µV / BER5%
Sensitivity TIA-603 / ETSI	60dB@12.5KHz / 70dB@25KHz	
Intermodulation	TIA-603	70dB@12.5 / 25 KHz
	ETSI	65dB@12.5 / 25 KHz
Spurious Response Rejection TIA-603 / ETSI	70dB@12.5 / 25 KHz	
Blocking	TIA-603	80dB
	ETSI	84dB
Hum and Noise	40dB@12.5KHz; 45dB@25KHz;	
Rated Audio Power Output	1.0W	
Rated Audio Distortion	≤3%	
Audio Response	+1~-3dB	
Conducted Spurious Emission	< -57dBm	

GPS	
The accuracy standard is applicable for long time tracking, (95% value>under rated -130dBm signal strength, there are 5 visible satellites)	
TTFF cold start	< 1 min
TTFF hot start	< 10 sec
Horizontal location accuracy	< 10 m

Disclaimer: The above specifications comply with standard tests accordingly, and due to continuous technical development, they are subject to changes without prior notice.

For more information, visit RCACommunicationsSystems.com

ACCESSORIES & OPTIONS



**Medium Duty
Speaker Mic**
SM223IS-X93



Battery
B4320LI-IS
Lithium-Ion
7.4V 2000mAh 14.8 Wh



Stubby Antenna
ANH4300-S VHF/UHF



Whip Antenna
ANH4300-W VHF/UHF



Nylon Holsters
For RDR4330 /
RDR4360 / RDR4390



Leather Holsters
For RDR4330 /
RDR4360 / RDR4390



**Single Unit Rapid
Charger**
CH4301



6 Bank Rapid Charger
CH4306



For more information, visit
www.RCACommunicationsSystems.com

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