



# RCA

Communications Systems

**prodigi**<sup>TM</sup>  
PROFESSIONAL DIGITAL RADIO PRODUCTS

**INTRINSICALLY  
SAFE SERIES**



**RDR4330 UHF / VHF**  
**RDR4360 UHF / VHF**  
**RDR4390 UHF / VHF**

**The Intelligent Choice for  
Digital Two-Way Radio 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 RDR43x0 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 OPERATION** With different operating modes, Conventional Analog, Conventional Digital DMR Tier II, Trunked Digital DMR Tier III, Prodigy Plus™, MPT 1327, these portable radios will truly meet even the most demanding communication needs. The RDR43x0 Intrinsically Safe series 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 RDR43x0 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 RDR43x0 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 RDR43x0 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™ RDR43x0 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 10 hours of operation in Analog mode and up to 14 hours of operation in Digital mode.

**CRYSTAL CLEAR AUDIO** Designed with X-Sound+HD™ for exceptional voice quality. The RDR43x0 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 RDR43x0 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.

**AUTOMATIC ROAMING** Dramatically improves communication and productivity by allowing for seamless roaming from one repeater site to another and eliminating the need for users to physically change channels on the radios as they travel through the different coverage zones of the repeater system.

**INDUSTRY LEADING WARRANTY** The RDR43x0 Intrinsically Safe series portables are backed standard by an industry leading, hassle-free Three (3) Year Warranty.



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Intrinsically Safe  
Certified to  
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

Blue radio cases  
are available.



RDR4365

RDR4395



# 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
- 3.5 Watts VHF and UHF
- Group and Private Calling
- Text Messaging
- Scanning & Priority Scanning
- Roaming\*
- GPS Location Reportinging\*
- 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

## \* Optional Features



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

TRANSMITTER	
<b>Power Output</b>	Up to 3.5W, 2 Programmable Levels
<b>FM Modulation</b>	11K0F3E@12.5KHz
<b>4FSK Digital Modulation</b>	12.5kHz Data: 7K60F1D 12.5kHz Voice: 7K60F1E
<b>Conducted / Radiated Emission</b>	-36dBm < 1GHz; -30dBm > 1GHz
<b>Modulation Limiting</b>	±2.5KHz@12.5KHz; ±5.0KHz@25KHz
<b>FM Noise</b>	40dB@12.5KHz; 45dB@25KHz
<b>Adjacent Channel Power</b>	60dB@12.5KHz; 70dB@25KHz
<b>Audio Response</b>	+1~-3dB
<b>Audio Distortion</b>	≤3%
<b>Digital Voice Vocoder</b>	AMBE++ or VOVOC

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

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

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

# ACCESSORIES & OPTIONS

## RDR4330 / RDR4360 / RDR4390 ACCESSORIES



**Medium Duty  
Speaker Mic**  
SM223IS-X93



**Heavy Duty  
Speaker Mic**  
SM318-X93



**Waterproof  
Speaker Mic**  
SM311WP-X93



**Surveillance Kit**  
SK24NE-X93



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



**Belt Clip**  
BC4300



**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



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