



DMR

RCA
Communications Systems

DMR Handheld Radio



RDR7350 UHF / VHF

RDR7550 UHF / VHF

WORKS WITH YOUR CURRENT RADIOS!

The RCA PRODIGI™ RDR7x50 Series are high performance, feature rich, reliable handheld two-way radios for large organizations and teams who can not compromise. The RDR7350 and RDR7550 deliver crystal-clear communications in fringe areas and harsh environments, making them an ideal choice for a wide range of applications, where reliable communication is critical. Scalable and capable of operating across multiple modes, simply through software upgrades, the RDR7x50 handhelds are a future-proof investment that will adapt and evolve as your business does.

RDR7x50 SERIES FEATURES

ADVANCED MULTI-MODE FUNCTIONALITY With different operating modes — Conventional Analog, Conventional Digital DMR Tier II, Digital PRODIGI™ Plus and PRODIGI™ Plus Trunking the mobile will truly meet even the most demanding communication needs of any large organization. The RCA RDR7x50 series digital handheld radios are designed to connect your workforce efficiently and provide reliable communication allowing the team to focus on their duties.

CROSS-BRAND COMPATIBILITY Utilizing the DMR Digital technology according to the ETSI TS 102 361-1,-2,-3 Standards the RDR7350 and RDR7550 handheld radios are compatible with all RCA models as well as DMR based digital equipment from all other major brands, such as Motorola, Kenwood, Hytera and Vertex series digital two-way radios and repeaters.

INDUSTRIAL DURABILITY AND RELIABILITY Your team needs radios that will not fail them, regardless of the working environment. Designed with durability in mind with lightweight and industrial-strength aluminum alloy die-cast chassis, high quality polycarbonate thermoplastic front panel housing with strengthened edges for superior toughness, the radios meet the Military 810C, D, E, F, G and the IP67 standards.

FEATURE RICH AND VERSATILE The RDR7x50 series portables come in 2 different models, the standard non-display RDR7350 unit; the upgraded RDR7550 with large, 2.0 inch TFT LCD Full Color Display and alphanumeric keypad. 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, Encryption, Priority Interrupt and more.

IMPROVED VOICE COMMUNICATION The RDR7350 and RDR7550 Radios utilize the DMR digital technology allowing for the transmissions to stay clear from background noise regardless of the distance between two radio units, providing virtually no deterioration of the voice quality, thus increasing the usable coverage area where analog communication will be very poor or not possible at all.

FULL SHIFT PERFORMANCE The RCA PRODIGI™ RDR7x50 series handheld radios 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 non-display unit with 2400mAh Lithium Ion battery pack can provide up to 10 hours of operation in Analog mode and up to 14 hours of operation in Digital mode. For extended usage an optional 3400mAh Lithium Ion battery pack is available.

INDUSTRY LEADING WARRANTY The RCA RDR7x50 series handhelds are backed standard by an industry leading, hassle-free Three (3) Year Warranty.



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|----|----------------------------------|----|--------------------|
| 1 | Side Button 1* | 12 | LCD Display |
| 2 | Push-To-Talk Button (PTT) | 13 | Menu / OK |
| 3 | Side Button 2* | 14 | P1 / Answer / Call |
| 4 | Channel Selector Knob | 15 | Speaker |
| 5 | Radio On-Off/Volume Control Knob | 16 | Numeric Keypad |
| 6 | LED Indicator | 17 | Settings |
| 7 | Microphone | 18 | P2 / End / Home |
| 8 | Speaker | 19 | Up / Down |
| 9 | Microphone | 20 | Belt Clip |
| 10 | Antenna | 21 | Accessory Jack |
| 11 | Top Button* | 22 | Battery |

*Programmable Buttons

Optional Features:

- ❑ Man Down Functionality
- ❑ DMRA ARC4, 64, 128 and 256-bit encryptions.
- ❑ GPS Location Reporting.
- ❑ Accessory Link™ for wireless accessories.
- ❑ Noise reduction for environments with high ambient noise conditions.



RDR7x50 SPECIFICATIONS

GENERAL	
Frequency Bands	400 - 470 MHz (UHF) / 136-174 MHz (VHF)*
Dimensions (H x W x D)	4.9" X 2.13" X 1.37" (125 x 54 x 35mm)
Weight	0.7 lbs / 320 g
Battery Packs	Standard 7.4V, 2400mAh (Li-Ion), Optional 7.4V, 3400mAh (Li-Ion) Analog: up to 12hours / Digital: up to 14hours (Standard Battery, 5-5-90 Duty Cycle)
Channels	1,024
Channel Spacing	12.5 / 25kHz
LCD (RDR7550)	51 mm. / 2.0in. TFT LCD (320x240 pixels, 262k colors)
Frequency Stability	± 0.5ppm
Environmental Protection and Standards	Designed to meet: IP67 Dust & Water Intrusion MIL-STD-810 C,D,E,F,G Standard
Operating Temperature	-22°F (-30°C) / 140°F (60°C)
Storage Temperature	-40°F (-40°C) / 185°F (85°C)
Vocoder	AMBE+2
Digital Protocol	ETSI-TS102 361 -1, -2, -3, -4
GPS SPECIFICATION	
TIFF Cold Start	< 120s
TIFF Hot Start	< 10s
Horizontal Accuracy	< 10m
Acquisition Sensitivity	< -140dBm
Tracking Sensitivity	< -152dBm

TRANSMITTER SPECIFICATION	
RF Power Output	Selectable Levels: UHF High: 4W Low: 1W VHF* High: 5W Low: 1W
Audio Response	+1 ~ -3dB
Audio Distortion	3% (Analog) / 5% (Digital)
Hum and Noise	49dB @ 25kHz Analog 43dB @ 12.5kHz Analog 55dB @ Digital
Conducted/Radiated Emission	-36dBm (<1 GHz) -30dBm (>1 GHz)
Adjacent Channel Power	70dB @ 25kHz 60dB @ 12.5kHz
Transmission Deviation Limits	5kHz @ 25kHz 2.5kHz @ 12.5kHz
FM Modulation Mode	12.5KHz: 11K0F3E
4FSK Digital Mode	12.5KHz Data: 7K60FXD 12.5KHz Data/Voice: 7K60FXW
RECEIVER SPECIFICATION	
Analog Sensitivity	-121dBm / 12dB SINAD (typical)
Digital Sensitivity	-121dBm/BER 5% (typical) -118dBm/BER 1% (typical)
Adjacent Channel Selectivity	70dB @ 25kHz (TIA603&ETSI) 60dB @ 12.5kHz (TIA603&ETSI)
Spurious Rejection Blocking	>70dB (TIA603 & ETSI) 84dB (TIA603 & ETSI)
Intermodulation	>70dB (TIA603) >65dB (ETSI)
Conducted Spurious Emission	-57dBm (<1GHz) -47dBm (>1GHz)
Hum and Noise	49dB @ 25kHz Analog / 43dB @ 12.5kHz Analog 55dB @ Digital
Rated Audio Output Power	1.8W
Rated Audio Distortion	3% Analog / 5% Digital
Audio Response	+1 ~ -3dB

* Contact your RCA Communications Systems Dealer for availability.

DIGITAL VOICE SYSTEMS, INC.
The Speech Compression Specialists
AMBE+2 Vocoder

3 YEAR
WARRANTY
PROTECTION PROGRAM

DMR

For more information, visit www.RCACommunicationsSystems.com

ACCESSORIES & OPTIONS

RDR7x50 Accessories



**Heavy Duty
Speaker Mic**
SM232WP-X73



**Medium Duty
Speaker Mic**
SM220-X73



**2-Wire Surveillance
Kit**
SK22NE-X73



**High Noise Reduction
Noise Canceling
BTH Headset**
HS75NR-X73



**VHF Antenna with
GPS**
ANH7350V/U



**UHF Antenna with
GPS**
ANH7350V/U-S



Standard Battery
B7324LI
Lithium-Ion
7.4V 2400mAh / 17.28 Wh



Upgraded Battery
B7334LI
Lithium-Ion
7.4V 3400mAh / 25.16 Wh



**Nylon Holsters - Fixed/
Swivel Clip/Belt Loop**
HN7350 / HN7550



Heavy Duty Belt Clip
BC7350



**Single Unit Desktop
Rapid Charger**
CH7301



**6 Bank Multi-Unit
Rapid Charger**
CH7306



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