



# RDU4160d

## RDX Series™ On-Site Two-Way Business Radio

### Performance You Can Count On.

The Motorola RDX Series provides your business with a competitive communications edge, enhancing employee efficiency and overall profitability. Affordable and easy to use, the RDX Series helps keep your operations on schedule, maximize job-shift productivity, enhance security and increase overall customer satisfaction. Compatible with other radios operating on the same frequency and code, the versatile RDX Series also has a full complement of accessories for customizing the radio to suit your needs.



RDU4160d

#### Exceptional Audio Quality

2000 mW audio output, speaker magnetic field reduction, wind-noise reduction and improved RF specifications deliver superior audio quality that is 30% louder than Motorola XTN and AX models.

#### Rugged and Water Resistant

Meets Military 810 C,D,E and F and IP54/55 specifications for shock, rain, humidity, salt fog, vibration, sand/dust, temperature shock, high and low temperature.

#### Customer Programming Software (CPS)\*

Allows users to perform programming functions and provides access to new features such as Reverse Burst to eliminate unwanted noise, Radio Reporting to manage cloning and radio profiles, Manager Lock, Power Select, PL/DPL Defeat and two additional Time-Out Timers.

#### Power and Coverage\*\*

4 Watt, UHF provides coverage of up to 350,000 sq. ft., 30 floors.

#### Repeater Capability

Duplex repeater compatibility provides much greater coverage area compared to communicating in radio to radio mode.

#### Channel Aliasing

Provides ability to give channels user-defined names.

#### Front Panel Programmability

Five programmable buttons give users quick access to features such as scan list, power select, and manager lock.

#### Business Exclusive Frequencies and Codes

Operates on 89 UHF (expanded vs XTN and AX models) business exclusive frequencies and features 213 codes (84 DPL codes, 84 inverted DPL codes and 6 customizable PL codes) to help ensure a clear signal.

#### Tri-Color LED Interface

Convenient interface allows users to identify radio features and status.

#### Easy Cloning

Quickly copy settings with the Radio-to-Radio Cloning Cable or Multi-

Unit Charger. (Accessories sold separately.)

#### Flexible and Durable Battery Life Solutions

The custom RDX Series Li-Ion battery packs are designed and manufactured to ensure durability. Radios come with an ultra high capacity battery. An alkaline battery kit is available as an optional accessory.

#### Advanced Voice Activation (VOX)

Enables convenient hands-free operation when used with optional accessories.

#### General Features:

- Accessory Mic Gain
- Battery Save
- Backlit Display
- 16 Channels
- Manager Lock
- USB CPS Interface
- Power Select—2/4 Watts
- Scan and Scan List
- Scramble
- Time-Out Timer
- Compatible with XTN Audio Accessories
- Compatible with AX Default Settings

\* CPS is available as free download. Windows® XP/Windows 2000 compatible, separate USB cable required.

\*\* Coverage will vary based on terrain, conditions and the radio model used.

## General Specifications

	RDU4160d
Frequency Range	UHF (438 to 470 MHz)
Audio Output	2000 mW
Channel Capacity	16 Channels
Channel Bandwidth	12.5/25 kHz
Dimensions (H" x W" x D") w/Ultra High Capacity Li-Ion Battery	4.5 x 2.2 x 1.8 inches (115.6 x 57.6 x 45.1 mm)
Weight w/Ultra High Capacity Li-Ion Battery	10.3 oz (293 g)
Average Battery Life @ 5/5/90 (with Battery Save On): w/Ultra High 2400 mAh Li-Ion Battery w/Optional Alkaline Battery Accessory	Up to 18.5 Hours Up to 26 Hours
Power Supply Voltage	7.2 Volts DC (Li-Ion Battery Pack or Alkaline )

## Transmitter

RF Output High Low	4 Watts 2 Watts
Frequency Stability	< 2 ppm
Spurs & Harmonics	< -50 dBc
FM Hum & Noise	-40 dB @ 12.5 kHz -45 dB @ 25.0 kHz
Modulation Limiting	±2.5 kHz @ 12.5 kHz ±5.0 kHz @ 25.0 kHz
Adjacent Channel Power	60 dBc
Radiated Spurious Emissions @ 12.5 kHz	< -20 dBm
Radiated Spurious Emissions @ 25 kHz	< -13 dBm
Audio Frequency Response (0.3 - 3.0 kHz)	+1 to -3 dB
Audio Distortion	< 2%

## Receiver

Sensitivity (12 dB SINAD)	-122 dBm (0.18 µV)
Adjacent Channel Selectivity	60 dB @ 12.5 kHz 65 dB @ 25.0 kHz
Intermodulation Rejection	60 dB
Spurious Response Rejection (blocking 1 MHz)	80 dB
Audio Distortion	< 5%
CSQ Hum & Noise @ 12.5 kHz	-50 dB
PL Hum & Noise @ 12.5 kHz	-50 dB
DPL Hum & Noise @ 12.5 kHz	-45 dB
Radiated Spurious Emissions (< 1 GHz)	< -54 dBm
Radiated Spurious Emissions (> 1 GHz)	< -52 dBm
Audio Output @ < 5% Distortion	1.5 W @ 8 ohms

## Military Specifications

Standard	MIL 810 C Methods/Procedures	MIL 810 D Methods/Procedures	MIL 810 E Methods/Procedures	MIL 810 F Methods/Procedures
Low Pressure	500.1 / Procedure 1	500.2 / Procedure 2	500.3 / Procedure 2	500.4 / Procedure 1
High Temperature	501.1 / Procedure 1,2	501.2 / Procedure 1,2	501.3 / Procedure 1,2	501.4 / Procedure 1,2
Low Temperature	502.1 / Procedure 1	502.2 / Procedure 1,2	502.3 / Procedure 1,2	501.4 / Procedure 1,2
Temperature Shock	503.1 / Procedure 1	503.2 / Procedure 1	503.3 / Procedure 1	503.4 / Procedure 1
Solar Radiation	505.1 / Procedure 1	505.2 / Procedure 1	505.3 / Procedure 1	505.4 / Procedure 1
Rain	506.1 / Procedure 1,2	506.2 / Procedure 1,2	506.3 / Procedure 1,2	506.4 / Procedure 1
Humidity	507.1 / Procedure 2	507.2 / Procedure 2,3	507.3 / Procedure 2,3	507.4 / Procedure 3
Salt Fog	509.1 / Procedure 1	509.2 / Procedure 1	509.3 / Procedure 1	509.4 / Procedure 1
Dust	510.1 / Procedure 1	510.2 / Procedure 1	510.3 / Procedure 1	510.4 / Procedure 1
Vibration	514.2 / Procedure 8,10	514.3 / Procedure 1	514.4 / Procedure 1	514.5 / Procedure 1
Shock	516.2 / Procedure 1,2,5	516.3 / Procedure 1,4	516.4 / Procedure 1,4	516.5 / Procedure 1

## Environmental Specifications

Operating Temperature	-30°C to +60°C (Radio)
Sealing	IP55
Shock & Vibration	Polycarbonate Housing passes EIA 603
Dust & Humidity	Satisfied EIA 603

Specifications subject to change without notice. All specifications shown are typical.  
Radio meets applicable regulatory requirements.



**MOTOROLA**

MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their registered owners. © Motorola, Inc. 2009  
RDU-4160-D-SPEC 5/09

For more information:

**Name**  
**Company Name**  
**Street Address**  
**City, State, Zip**  
**Phone**