

PROFESSIONAL DMR REPEATER

Rx-RR850

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KEY FEATURES

Compact & space efficient design

Standard 2U height rack mount, built-in power & duplexer(optional), it benefits space saving & fast deployment.

Rock solid performance

Supports GPS+BDS satellite positioning(optional) Combined with 50W transmit output power, this gives clear voice quality, even in adverse conditions.

Round the clock reliable operation

Built-in feature like AC/DC power converter, battery charger which could keep working once AC power is lost, error indication, etc.

TDMA True 2-Slots

Two calls per repeater and channel.

Digital/analog Self-adaption

DMR digital mode and Analog FM mode.

TECHNICAL DATA

General

Frequency Range	VHF: 136-174 MHz UHF: 350-390/400-470/450-520 MHz
Channel Capacity	99
Channel Spacing	12.5 KHz
Antenna Impedance	50Ω
Operating Voltage	DC 13.8V (±15%), Negative ground AC 110V/AC 220V
Current	< 9A
Operating Temperature	-30°C to 70°C
Storage Temperature	-40°C to 85°C
Dimensions (W×H×D)	2U/19 Inches
Weight	14 Kgs

Transmitter

RF Output Power	5-50W (continuous)
Frequency Stability	≤ ±0.5 ppm (Without GPS) ≤ ±0.02 ppm (With GPS)
4FSK Modulation	12.5 KHz (data only): 7K60FXD 12.5 KHz (data and voice): 7K60FXW
Adjacent Channel Power	≤ 60 dB
Spurious Radiation	-36dBm<1GHz -30dBm>1GHz
Vocoder	AMBE

Receiver

Sensitivity	3%BER≤0.35μV
Analog Sensitivity	0.25μV (12dB SINAD)
Frequency Stability	≤ ±0.5ppm (without GPS) ≤ ±0.2ppm (with GPS)
Intermodulation Immunity	≥70dB

Receiver (continued)

Adjacent Channel Selectivity	≥60dB
Spurious Response	≥70dB
Blocking	≥95dB
Frequency Response	+1/-3 dB
FM Noise	-40dB
Audio Power	3W
Audio Distortion	3% (typical)
Conduction Radiation	-57dBm
GPS Precision	Horizontal Accuracy ≤-10m (when signal is good)
TTFF (First Location) Cold Boot	<1 minute (good signal)
TTFF (First Location) Hot Boot	<10 seconds (good signal)

Function key description

Front panel	Indicators, Screen, Programming Interface, Programming Keys
Rear panel	DC IN (DC Power In/ Battery Charging Port), RX, ANT/TX, ACC, NET (Network Port), GNSS (Satellite Antenna Port), AC IN

ACCESSORIES

- Power Cable
- USB Programming Cable (optional)
- Duplexer (optional)