

Rio M

29/50/144/430MHZ QUAD BAND TRANSCEIVER

V/V, U/U, V/U simultaneous receive capability

- 50w of high transmit output power (UHF 40W)/Built-in V+U cross-band repeater capability
- CTCSS/DCS/DTMF/2 Tone/5 Tone signaling Noise compander and scrambler
- Detachable remote panel mounting capability/Wide/Mid/Narrow bandwidth selectable
- Wide band AM receiving and FM receiving for 26-33MHz, 47-54MHz, 108-180MHz, 320-512MHz, 750-950MHz



Main Functions

- Quad Band Operation: includes 29/50/144/430MHz four amateur bands.
- Wide band AM receiving and FM receiving for 26–33MHz, 47–54MHz, 108–180MHz, 320–512MHz, 750–950MHz (except cell phone).
- Main Band A + Sub Band B independent operation design
- V + V & U + U & V+U Dual Receiver Design
- V+U Full Duplex Operation
- Cross-Band Repeater Function
- Detachable Front Panel
- Ultra-size LCD Screen Dual Display
- 50W Output Power for 29/50/144MHz, 35W for 430MHz
- More than 800 Memory Channels
- 50 CTCSS/1024 DCS/DTMF/2 Tone/5 Tone 5 kinds of signaling
- 8 groups of Voice Scrambler option
- Wide/Mid/Narrow bandwidth selectable

Standard Accessories



Specification

General

Frequency Range	RX (AM and FM): 26-33MHz, 47-54MHz or 66-88MHz, 108-180MHz, 320-512MHz, 750-950MHz (Cellular Blocked) TX (FM): 26-33MHz, 47-54MHz or 66-88MHz, 134-174MHz (144-146MHz/144-148MHz), 400-480MHz (430-440/430-450MHz)
Channel Capacity	809 channels
Channel Spacing	2.5/5/6.25/10/12.5/15/20/25/50 KHz
Modes of Emission	F3
Antenna Impedence	50 Ohms, unbalanced (Antenna Duplexer built-in)
Frequency Stability	±5 ppm@-140°F~+140°F(-10°C~+60°C)
Operating Voltage	-4°F~+140°F(-20°C~+60°C)
Operating Temperature Range	13.8VDC (± 15%), negative ground
Current Consumption (Approx)	RX: 0.5A (Squelched) TX: 8.0A (50/430MHz), 8.5A (29/144MHz)
Case size (WxHxD)	140x41.5x168mm (w/o knobs & connectors)
Weight (Approx)	1.2kg

Transmitter

Output power	50/20/10/5 W(29/50/144MHz), 40/20/10/5W(430MHz)
Modulation Type	Variable Reactance
Maximum Deviation	≥ -60dB (29 MHz: ≥ -50dB)
Modulation Distortion	< 3%
Microphone Impedance	2kΩ

Receiver

Circuit Type	Double-conversion super-heterodyne
Intermediate Frequency	49.95 MHz / 450 KHz (Left band) 38.85 MHz / 450 KHz (Right band)
Sensitivity (for 12dB SINAD)	≥ 0.2μV
Squelch Sensitivity	≥ 0.16μV
Selectivity (-6 dB/-60dB)	12 kHz/30KHz
Maximum AF Output	2W@8Ω for 5% THD
AF Output Impedance	4-16Ω