

ADVANCED DIGITAL PORTABLE RADIO

Rx765

Realix Unveils Rx765: A Future-Ready Digital Radio Redefining Communication Standards

Realix, a leader in professional digital radios, introduces the Rx765 - its latest innovation shaped by extensive R&D and user feedback. Designed for the future, the Rx765 features powerful audio, long battery life, exceptional portability, and rugged durability. It sets a new benchmark in digital communication, delivering reliable and efficient performance across diverse industries and environments.

KEY FEATURES

Slim and Lightweight Design for Enhanced Portability

At just 29.5mm thick and 310g, the Rx765's slim, lightweight build makes it easy to carry, helping officers stay mission-focused.

Extended Battery Life for All-Day Performance

The Rx765's compact lithium polymer battery provides up to 24 hours of use, ensuring reliable communication throughout an entire shift.

Crisp, Clear Audio in Any Environment

The Rx765 delivers louder, clearer sound with a forward-facing speaker and AI-based noise cancellation. Water-porting technology ensures consistent audio clarity, even in wet conditions.

Smarter Interface for Faster Operation

The Rx765 features a 2.4-inch color display with an intuitive UI, Quick Access Menu, and conversation-style messaging. An Interface Switcher and programmable buttons boost efficiency with fast access to key functions.

Expanded Coverage for Greater Reach

The Rx765 offers extended operational and talk range with high receiver sensitivity and transmit power, enabling communication in previously unreachable areas. This enhances user safety and lowers network costs.

Built Tough for Any Mission

The Rx765 meets MIL-STD-810G standards and has an IP68 rating, making it waterproof up to 2 meters for 4 hours and resistant to 2-meter drops onto concrete. It's built to withstand the toughest environments.

Realix Industries Private Limited
TA-01, 3rd Floor, Lake City Mall, Kapurbawadi Junction, G B Road, Thane West 400607, Maharashtra, India
+91 22 4203 9999 · info@realix.in · realix.in

TECHNICAL DATA

General	
Frequency Range	UHF: 350~470MHz; VHF: 136~174MHz
Channel Capacity	1024
Zone Capacity	64
Zone Channel	256
Channel Spacing	12.5kHz/20kHz/25kHz
Operating Voltage	7.7V (rated)
Battery	2400 mAh Li-polymer
Battery Life (5/5/90 Duty Cycle, High TX Power)	24h (GNSS disabled); 20h (GNSS enabled)
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Dimensions (H x W x D)	132 x 55 x 29.5mm
Weight (with antenna & battery)	310g
Display	LCD, 320×240 pixel, 262000 colors, 2.4 inch, 10 rows
BT	BT 5.0 BLE+EDR

Receiver	
Sensitivity	Analog: 0.18μV (12dB SINAD); 0.16μV (Typical) (12dB SINAD); Digital: 0.18μV/BER5%
Adjacent Channel Selectivity	TIA-603: 60dB@12.5kHz / 70dB@20/25kHz; ETSI: 60dB@12.5kHz / 70dB@20/25kHz
Intermodulation	TIA-603: 70dB@12.5/20/25kHz; ETSI: 65dB@12.5/20/25kHz
Spurious Response Rejection	TIA-603: 70dB@12.5/20/25kHz; ETSI: 70dB@12.5/20/25kHz

Receiver (continued)	
Blocking	TIA-603: 80dB ETSI: 84dB
Hum and Noise	40dB@12.5kHz; 43dB@20kHz; 45dB@25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	UHF: 1W/4W VHF: 1W/5W
FM Modulation	11K0F3E@12.5kHz; 14K0F3E@20kHz; 16K0F3E@25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD; 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz; -30dBm>1GHz
Modulation Limiting	±2.5kHz@12.5kHz; ±4.0kHz@20kHz; ±5.0kHz@25kHz
FM Hum & Noise	40dB@12.5kHz; 43dB@20kHz; 45dB@25kHz
Adjacent Channel Power	60dB@12.5kHz; 70dB@20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3

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Environmental	
Operating Temperature	-30°C* ~ +60°C (*Radio only - Battery -20°C)
Storage Temperature	-40°C ~ +85°C
ESD	IEC 61000-4-2 (Level 4); ±8kV (contact); ±15kV (air)
Dust and Water Protection	IEC60529- IP68
Humidity	MIL-STD-810 G
Shock and Vibration	MIL-STD-810 G

Location Services	
GNSS	GPS, GLONASS, BDS
TTFF (Time To First Fix) Cold Start	<1 min (Typical)
TTFF (Time To First Fix) Hot Start	<10 sec (Typical)
Horizontal Accuracy	<5m (probable at -130dBm)

Features	
Operation Modes	Conventional (Digital / Analog), and Digital Trunking
Voice Services	Private, Group, Emergency, Broadcast, PSTN - Calls
Data Services	Private Text, Status, Group Messages, Quick Text
Connectivity	Bluetooth, GPS, GLONASS, Accessory Support
Security	Emergency alerts, Man Down, Lone Worker, Authentication, Encryption (Basic/Full)
Other	Roaming, Remote Monitor, Call Alerts, 2-Tone Analog Support
Analog Mode	2-Tone signaling, 5-Tone Signaling, HDC 1200

ACCESSORIES

- Standard: Charger CH10L27
- Standard: Adapter (12V/1A)
- Standard: Battery BP2403
- Standard: Antenna
- Standard: Belt Clip BC39
- Standard: Strap RO03
- Optional: Wireless Earphone
- Optional: Programming Cable (USB Port)
- Optional: Wireless Finger PTT

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