MOTOROLA

MOTOTRBO™

PROFESSIONAL DIGITAL TWO-WAY RADIO 800 MHz SYSTEM

MOTOTRBO PROFESSIONAL DIGITAL TWO-WAY RADIO 800 MHz SYSTEM THE FUTURE OF TWO-WAY RADIO

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next—connecting people, delivering mobility and making technology personal. Versatile and powerful, MOTOTRBO combines the best in two-way radio functionality with digital technology, making it the ideal communication solution for your business. You get enhanced features, increased capacity, integrated data applications, exceptional voice quality and extended battery performance. This means more productive employees and lower operating costs for your business.

- **Integrates Voice and Data** into one device to increase your operational efficiency and support integrated applications including MOTOTRBO Text Messaging Services. Also features an integrated GPS module for use with third-party location-tracking applications.
- Uses Time-Division Multiple-Access (TDMA) digital technology to provide **Twice The Calling Capacity** (as compared to analog or FDMA radios) for the price of one frequency license. A second call doesn't require a second repeater, saving you equipment costs.
- In digital mode, provides **Clearer Voice Communications** throughout the coverage area, as compared to analog radios, rejecting static and noise.
- Offers **Enhanced Battery Life**. Digital TDMA two-way portable radios can operate up to 40 percent longer between recharges compared to typical analog radios.
- Provides **Easy Migration** from analog to digital with the ability to operate in both analog and digital modes and utilizing the **Dynamic Mixed Mode*** repeater functionality allows for automatic switching between analog and digital mode on the same repeater.
- Meets **Demanding Specifications**—IP57 for submersibility in water (portable models), U.S. Military 810 C, D, E and F, and Motorola standards for durability and reliability.
- Is **Intrinsically Safe***, when purchased and equipped with an FM battery, and can be used in locations where flammable gas, vapors or combustible dust may be present.
- Utilizes Motorola's **State-Of-The-Art IMPRES™ Technology** in batteries, chargers and audio accessories, providing longer talk time and clearer audio delivery.
- Features the **Transmit Interrupt Suite*** —voice interrupt, remote voice dekey, emergency voice interrupt —to help prioritize critical communication exactly when needed.
- The **IP Site Connect*** digital solution uses the Internet to extend coverage of your MOTOTRBO communication system to users anywhere in the world for dramatically improved customer service and increased productivity.
- **Capacity Plus*** is a scalable, single-site digital trunking solution that can expand the capacity of your MOTOTRBO communication to over a thousand radio users without adding new frequencies.
- **Motorola's Application Developer Program** enables the development of customized data applications that adapt MOTOTRBO radios to meet the unique needs of your business.

*Optional feature, please indicate it when placing the radio order

MOTOTRBO™
Repeater Radio 800 MHz

General Specifications*

	XiR R8200
Total Channel Capacity	16
Frequency	800 MHz
Dimension (H x W x T)	132.6 x 482.6 x 296.5 mm 5.22 x 19 x 11.67 in
Voltage requirements	100 - 240 VAC, 50/60Hz
Weight	14 kg (31 lbs)
Current Drain (High Power) Standby Transmit	 1.0A (100 VAC), 0.5A (240 VAC) 4.0A (100 VAC), 1.8A (240 VAC)
Operating Temperature Range	-30°C to +60°C
Max Duty Cycle	100%
FCC Description	10–35 W: ABZ99FT5029

Receiver	
Frequencies	806-825 MHz
Channel Spacing	12.5 kHz and 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	 +/- 0.5 ppm
Analog Sensitivity	0.22 uV (typical)
Digital Sensitivity	5% BER: 0.28 uV
Intermodulation (TIA603C)	78dB
Adjacent Channel Selectivity (TIA603C) - 1T	65 dB @ 12.5 kHz 75 dB @ 25 kHz
Adjacent Channel Selectivity (TIA603C) - 2T	50 dB @ 12.5 kHz 75 dB @ 25 kHz
Spurious Rejection	75 dB
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-45 dB @ 12.5 kHz -45 dB @ 25 kHz
Audio Response	TIA603C
Conducted Spurious Emission	-57 dBm

Transmitter	
Frequencies	851-870 MHz
Channel Spacing	12.5 kHz and 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	 +/- 0.5 ppm
Power Output Low Power High Power	 10W 35W
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz
Adjacent Channel Power	-50 dB @ 12.5 kHz -60 dB @ 25 kHz
Audio Response	TIA603C
Audio Distortion	3%
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE
Digital Vocoder Type A	AMBE+2™
Digital Protocol E	ETSI-TS102 361-1

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

Environmental Specifications	
Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC-801-2KV
Packaging Test	MIL-STD 810D and E

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