



# MOTOTRBO™

## XPR™ 8300 Repeater



Supports **two simultaneous voice or data paths** in digital Time-Division Multiple-Access (TDMA) mode

**100% continuous full duty cycle** at 40 W

**Integrated** power supply

Operates in **analog or digital** mode—bright, clear, colored LEDs indicate mode

LEDs clearly indicate **transmit and receive modes** in both channel slots

**Rack or wall-mountable;** desktop housing also available

**Sturdy handles** make installation and handling easier

**Automated** battery back-up (battery sold separately)

The MOTOTRBO system is backed by a **two-year** Standard Warranty

**Doubles the number of users** you can have on a single licensed 12.5 kHz channel

**Integrates voice and data** to increase operational efficiency

**Supports integrated applications** including MOTOTRBO Text Messaging Services and MOTOTRBO Location Services (GPS location tracking)

MOTOTRBO is a **complete two-way radio system** that includes portable and mobile radios, repeaters, accessories and applications

### Accelerate performance.

The next-generation professional two-way radio communications solution is here, with more performance, productivity and value—thanks to digital technology that delivers increased capacity and spectrum efficiency, integrated data communications and enhanced voice communications.

MOTOTRBO offers you a private, standards-based, cost-effective solution that can be tailored to meet your unique coverage and feature needs. This versatile portfolio provides a complete system of portable radios, mobile radios, repeaters, accessories and data applications.

## General Specifications

	UHF – XPR 8300
Channel Capacity	1
Technical RF Output	25-40 W
Frequency	403-470 MHz
Dimensions (HxWxL)	5.22 x 19 x 11.67 in (132.6 x 482.6 x 296.5 mm)
Weight	31 lbs (14 kg)
Voltage Requirements	100-240 V AC (13.6 V DC)
Current Drain: Standby	1 A (1 A DC typical)
Transmit	3.8 A (11 A DC typical)
Operating Temperature Range	-30°C to +60°C
Max Duty Cycle	100%
FCC Description	ABZ99FT4025
IC Description	109AB-99FT4025

## Receiver

Frequencies	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm
Analog Sensitivity (12 dB SINAD)	0.30 uV 0.22 uV (typical)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation (TIA603C)	75 dB
Adjacent Channel Selectivity TIA603 TIA603C	65 dB @ 12.5 kHz, 75 dB @ 25 kHz 50 dB @ 12.5 kHz, 75 dB @ 25 kHz
Spurious Rejection	75 dB
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz
Audio Response	TIA603C
Conducted Spurious Emission	-57 dBm

## Transmitter

Frequencies	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm
Power Output	25-40 W
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 (TIA603C)	60 dB @ 12.5 kHz 70 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	AMBE++
Digital Protocol	ETSI-TS102 361-1

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