



# MOTOTRBO™

## XPR™ 4500/4550/4300 Mobile Radios



Mobile radios available in Display and Numeric Display, **GPS and Non-GPS models**

Uses Time-Division Multiple-Access (TDMA) digital technology which **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

Provides **clearer voice communications** throughout the coverage area as compared to analog radios

**Enables additional functionality** including dispatch data, and enhanced call signaling

**Enhanced call management** features include call alert, emergency, remote monitor, push-to-talk ID, radio check, private call, all call and radio disable

Four programmable buttons (two buttons for XPR 4300) for **easy access to favorite features**; Replacement Button Kit offers customized feature-specific buttons

Emergency button (or footswitch) **alerts supervisor** or dispatcher in emergency situations

Multi-colored LED indicators for **clear, visible feedback** of calling, scanning and monitoring features

XPR 4550 can **transmit location coordinates** with an emergency call using Location Services application

Allows **easy migration** from analog to digital as all units operate in analog and digital modes

Meets U.S. Military Standards 810 C, D, E, and F, and **Motorola standards** for durability and reliability

Newly Designed and durable IMPRES™ keypad microphone supports unit to unit **short free form and quick text messaging**

Utilizes the IMPRES Audio System for **enhanced audio functionality**

Backed by a two-year Standard Warranty plus one-year **Repair Service Advantage** (US) / Extended Warranty (Canada) and at least a one-year warranty for accessories

Send short free-form (requires keypad microphone) and quick **text messaging** via programmable buttons

XPR 4500/4550 contacts list accommodates up to **256 contacts**

### 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

	Display UHF XPR 4500 / XPR 4550	Non-Display UHF XPR 4300/4350*
Channel Capacity	160	32
Typical RF Output Low Power High Power	1-25 W* 25-40 W	1-25 W 25-40 W*
Frequency	403-470 MHz	403-470 MHz
Dimensions (HxWxL)	2.01 x 6.89 x 8.11 in (51 x 175 x 206 mm)	2.01 x 6.89 x 8.11 in (51 x 175 x 206 mm)
Weight	4.0 lbs. (1.8 kg)	4.0 lbs. (1.8 kg)
Current Drain: Standby Rx @ Rated Audio Transmit	0.81 A max 2 A max 1-25 W*: 11.0 A max 25-40 W: 14.5 A max	0.81 A max 2 A max 1-25 W: 11.0 A max 25-40 W*: 14.5 A max
FCC Description	1-25 W*: ABZ99FT4081 25-40 W: ABZ99FT4080	1-25 W: ABZ99FT4081 25-40 W*: ABZ99FT4080
IC Description	1-25 W*: 109AB-99FT4081 25-40 W: 109AB-99FT4080	1-25 W: 109AB-99FT4081 25-40 W*: 109AB-99FT4080

## Receiver

Frequencies	403-470 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz	12.5 kHz / 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (XPR 4500) +/- 0.5 ppm (XPR 4550)	+/- 1.5 ppm (XPR 4300) +/- 0.5 ppm (XPR 4350)*
Analog Sensitivity (12dB SINAD)	0.3 uV 0.22 uV (typical)	0.3 uV 0.22 uV (typical)
Digital Sensitivity	5% BER: 0.3 uV	5% BER: 0.3 uV
Intermodulation (TIA603C)	75 dB	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	65 dB @ 12.5 kHz, 75 dB @ 25 kHz 50 dB @ 12.5 kHz, 75 dB @ 25 kHz
Spurious Rejection (TIA603C)	75 dB	75 dB
Rated Audio	3 W (Internal) 75 W (External - 8 ohms) 13 W (External - 4 ohms)	3 W (Internal) 75 W (External - 8 ohms) 13 W (External - 4 ohms)
Audio Distortion @ Rated Audio	3% (typical)	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz	-40 dB @ 12.5 kHz -45 dB @ 25 kHz
Audio Response	TIA603C	TIA603C
Conducted Spurious Emission (TIA603C)	-57 dBm	-57 dBm

## Transmitter

Frequencies	403-470 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz	12.5 kHz / 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (XPR 4500) +/- 0.5 ppm (XPR 4550)	+/- 1.5 ppm (XPR 4300) +/- 0.5 ppm (XPR 4350)*
Power Output Low Power High Power	1-25 W* 25-40 W	1-25 W 25-40 W*
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz	-40 dB @ 12.5 kHz -45 dB @ 25 kHz
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz	-36 dBm < 1 GHz -30 dBm > 1 GHz
Adjacent Channel Power (TIA603C)	60 dB @ 12.5 kHz 70 dB @ 25 kHz	60 dB @ 12.5 kHz 70 dB @ 25 kHz
Audio Response	TIA603C	TIA603C
Audio Distortion	3%	3%
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE
Digital Vocoder Type	AMBE++	AMBE++
Digital Protocol	ETSI-TS102 361-1	ETSI-TS102 361-1

## GPS

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength).

TTFF (Time to First Fix) Cold Start	< 1 minute
TTFF (Time to First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

\*Coming Soon.

Specifications subject to change without notice. All specifications shown are typical.  
Radio meets applicable regulatory requirements.  
Version 3 03/07

## 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
Water Intrusion	IEC 60529 - IP57
Packaging Test	MIL-STD 810D and E



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