



MOTOTRBO™

XPR™ 4500/4550/4300/4350 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 an integrated GPS module for use with third-party location-tracking applications

Provides **clearer voice communications**, in

digital mode, throughout the coverage area as compared to analog radios

Enables additional functionality including dispatch data, enhanced call signaling, basic privacy-scrambling and option board expandability

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 4300/4350) 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

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 XPR 4500 / XPR 4550			Numeric Display XPR 4300 / XPR 4350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Channel Capacity	160			32		
Typical RF Output	1-25 W			1-25 W		
Low Power	25-45 W			25-45 W		
High Power	—			—		
Frequency	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 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:	0.81 A max			0.81 A max		
Standby	2 A max			2 A max		
Rx @ Rated Audio	1-25 W: 11.0 A max			1-25 W: 11.0 A max		
Transmit	25-45 W: 14.5 A max			25-45 W: 14.5 A max		
FCC Description	1-25 W: ABZ99FT3083 25-45 W: ABZ99FT3082	1-25 W: ABZ99FT4081 25-40 W: ABZ99FT4080	1-40 W: ABZ99FT4083	1-25 W: ABZ99FT3083 25-45 W: ABZ99FT3082	1-25 W: ABZ99FT4081 25-40 W: ABZ99FT4080	1-40 W: ABZ99FT4083
IC Description	1-25 W: 109AB-99FT3083 25-45 W: 109AB-99FT3082	1-25 W: 109AB-99FT4081 25-40 W: 109AB-99FT4080	1-40 W: 109AB-99FT4083	1-25 W: 109AB-99FT3083 25-45 W: 109AB-99FT3082	1-25 W: 109AB-99FT4081 25-40 W: 109AB-99FT4080	1-40 W: 109AB-99FT4083

Receiver

	Display XPR 4500 / XPR 4550			Numeric Display XPR 4300 / XPR 4350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 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)	78 dB	75 dB		78 dB	75 dB	
Adjacent Channel Selectivity TIA603	65 dB @ 12.5 kHz, 80 dB @ 25 kHz			65 dB @ 12.5 kHz, 80 dB @ 25 kHz		
TIA603C	50 dB @ 12.5 kHz, 80 dB @ 25 kHz			50 dB @ 12.5 kHz, 80 dB @ 25 kHz		
Spurious Rejection (TIA603C)	80 dB	75 dB		80 dB	75 dB	
Rated Audio	3 W (Internal) 7.5 W (External - 8 ohms) 13 W (External - 4 ohms)			3 W (Internal) 7.5 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

	Display XPR 4500 / XPR 4550			Numeric Display XPR 4300 / XPR 4350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz
Channel Spacing	12.5 kHz / 25 kHz			12.5 kHz / 25 kHz		
Frequency Stability (-30° C, +60° C, +25° C Ref.)	+/- 1.5 ppm (XPR 4500) +/- 0.5 ppm (XPR 4550)			+/- 1.5 ppm (XPR 4300) +/- 0.5 ppm (XPR 4350)		
Power Output	1-25 W			1-25 W		
Low Power	25-45 W			25-45 W		
High Power	—			—		
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+2™			AMBE+2™		
Digital Protocol	ETSITS 102 361-1, -2, -3			ETSITS 102 361-1, -2, -3		

GPS

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

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

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
Dust and Water Intrusion	IEC 60529 - IP54
Packaging Test	MIL-STD 810D and E



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