MOTOTRBO™

XPR™ 6500/6550/6300/6350 Portable Radios

Portable radios available in Display and Non-Display, **GPS and Non-GPS models**

Uses Time-Division Multiple-Access (TDMA) digital technology which **doubles the number of users** on a single licensed 12.5 kHz channel

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

Up to **40 percent longer** battery life between recharges

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, radio disable

Emergency button alerts supervisor or dispatcher in an emergency situation

Integrates voice and data to increase operational efficiency

Send short free-form and quick **text messaging** via programmable buttons

XPR 6500/6550 contacts list allows up to **256 contacts**

Allows an **easy migration** from analog to digital with the ability to operate in both modes

Meets **IP57 submersibility** standard along with U.S. Military Standards 810 C, D, E, and F and Motorola standards for durability and reliability

Is **intrinsically safe** and can be used in locations where flammable gas, vapors or combustible dust may be present

Portable radios **meet FM approvals.** Approved FM battery option is a 1400 mAh IMPRES™ slim Lilon FM battery

Accessory connector meets IP57 submersibility specifications, incorporates RF, and USB and utilizes the IMPRES Audio System for **enhanced audio functionality**

Utilizes Motorola's state-of-the art **IMPRES** technology—providing **longer talk times and clearer audio delivery**

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

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 6500 / XPR 6550			Non-Display XPR 6300 / XPR 6350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Channel Capacity	160			32		
Frequency	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz
Dimensions (HxWxT) w/ Lilon Battery	5.18 x 2.50 x 1.39 in (131.5 x 63.5 x 35.2 mm)			5.18 x 2.50 x 1.39 in (131.5 x 63.5 x 35.2 mm)		
Weight (with IMPRES Lilon 1500 mAh Battery) (with IMPRES Lilon 1400 mAh FM Battery) (with IMPRES Lilon 2200 mAh Battery) (with NiMH 1300 mAh Battery)	12.7 oz (360 g) 13 oz (370 g) 13.17 oz (375 g) 15.2 oz (430 g)			11.63 oz (330 g) 11.98 oz (340 g) 12.12 oz (345 g) 14.09 oz (400 g)		
Power Supply	7.5 V nominal			7.5 V nominal		
FCC Description	AZ489FT3815	AZ489FT4876	AZ489FT4884	AZ489FT3815	AZ489FT4876	AZ489FT4884
IC Description	109U-89FT3815	109U-89FT4876	109U-89FT4884	109U-89FT3815	109U-89FT4876	109U-89FT4884
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.						
IMPRES Lilon 1500 mAh Battery	Analog: 9 hrs Digital: 13 hrs			Analog: 9 hrs Digital: 13 hrs		
IMPRES Lilon FM 1400 mAh Battery	Analog: 8.5 hrs Digital: 12 hrs			Analog: 8.5 hrs Digital: 12 hrs		
IMPRES Lilon 2200 mAh Battery	Analog: 13.5 hrs Digital: 19 hrs			Analog: 13.5 hrs Digital: 19 hrs		
NiMH 1300 mAh Battery	Analog: 8 hrs Digital: 11 hrs			Analog: 8 hrs Digital: 11 hrs		

Receiver

	Display XPR 6500 / XPR 6550			Non-Display XPR 6300 / XPR 6350		
	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 6500) +/- 0.5 ppm (XPR 6550)			+/- 1.5 ppm (XPR 6300) +/- 0.5 ppm (XPR 6350)		
Analog Sensitivity (12 dB SINAD)	0.35 uV 0.22 uV (typical)			0.35 uV 0.22 uV (typical)		
Digital Sensitivity	5% BER: 0.3 uV			5% BER: 0.3 uV		
Intermodulation (TIA603C)	70 dB			70 dB		
Adjacent Channel Selectivity TIA603 TIA603C	60 dB @ 12.5 kHz, 70 dB @ 25 kHz 45 dB @ 12.5 kHz, 70 dB @ 25 kHz			60 dB @ 12.5 kHz, 70 dB @ 25 kHz 45 dB @ 12.5 kHz, 70 dB @ 25 kHz		
Spurious Rejection (TIA603C)	70 dB			70 dB		
Rated Audio	500 mW			500 mW		
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 6500 / XPR 6550			Non-Display XPR 6300 / XPR 6350		
	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 6500) +/- 0.5 ppm (XPR 6550)			+/- 1.5 ppm (XPR 6300) +/- 0.5 ppm (XPR 6350)		
Power Output Low Power High Power	1 W 5 W	1 W 4 W		1 W 5 W	1 W 4 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	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	ETSI TS 102 361-1, -2, -3			ETSI TS 102 361-1, -2, -3		

GPS

	Display XPR 6500 / XPR 6550	Non-Display XPR 6300 / XPR 6350
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	< 2 minutes	< 2 minutes
TTFF (Time To First Fix) Hot Start	< 10 seconds	< 10 seconds
Horizontal Accuracy	< 10 meters	< 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
Water Intrusion	IEC 60529 - IP57
Packaging Test	MIL-STD 810D and E

MOTOROLA

MD-EU/SP/PORTABLE

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