



YOUR VOICE JUST GOT STRONGER

# MOTOTRBO™ XPR™ 7000 SERIES DIGITAL TWO-WAY PORTABLE RADIOS



From the factory worker building components to the road crew making repairs, MOTOTRBO can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and unrivaled data capabilities empower people like never before.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. XPR 7000 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver business-critical advantages like integrated Bluetooth® and Intelligent Audio.

The XPR 7000 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.



## PRODUCT SPEC SHEET

MOTOTRBO XPR 7000 SERIES PORTABLE RADIOS

### AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. XPR 7000 Series portables give you digital audio performance throughout your coverage area plus unique features to help your employees hear and speak clearly, wherever they work.

With Intelligent Audio, the radio volume automatically adjusts to compensate for background noise so workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturb others when they move into quiet areas. Increased background noise suppression helps filter out unwanted external clamor – from heavy equipment to the roar of engines.

Bluetooth® audio is embedded right in the radio, so no adapter is needed when using wireless accessories. Also, IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter accessories than they've ever experienced before.

### INDUSTRY-LEADING DATA

XPR 7000 Series radios feature integrated Bluetooth® data, so rather than waiting until the end of a shift, busy work crews can send real time information back to the office, saving valuable hours and enabling better decision making. Integrated GPS enables location tracking of mobile work teams and text messaging enables communication when voice isn't feasible. And the large, full-color, 5-line display operates in day or night mode, for easy viewing of contact lists, text messages and work order tickets even in bright sunlight.

MOTOTRBO's Application Developer Program offers customized data applications so you can adapt your radios to your business challenges. With the largest developer program in the industry, data applications help meet your objectives – from work order ticket management to telephony integration, and more.

### HIGH-POWERED PERFORMANCE

Because MOTOTRBO uses TDMA digital technology, you get integrated voice and data, twice the calling capacity and clearer voice communications. When it comes to battery performance, MOTOTRBO radios operate up to 40 percent longer between recharges compared to analog.

### RICH FUNCTIONALITY

XPR 7000 Series radios offer plenty of features businesses seek – including enhanced call signaling, basic and enhanced privacy-scrambling, option board expandability and the transmit interrupt suite to prioritize critical communication the moment you need it. Programmable button features appear on the display for easy viewing and quick access. And when workers can't be distracted, customizable voice announcement provides audible confirmation of channel and zone changes as well as programmable button features, eliminating the need to view the display.

### EXPANDED CAPACITY AND COVERAGE

Your workforce is hard at work every day – picking up loads, making road repairs, providing security, responding to guest requests or restoring power after a storm.

IP Site Connect helps to dramatically improve customer service and productivity by using the Internet to extend coverage to create a wide area network, enhance single site coverage or link geographically dispersed locations. Capacity Plus single-site trunking expands capacity to over 1,000 users without having to add new frequencies. Linked Capacity Plus leverages the high capacity of Capacity Plus, with the wide area coverage capabilities of IP Site Connect to keep your staff connected with an affordable wide area trunking solution. So whether you want coverage at a single site or across multiple ones, MOTOTRBO can be scaled to your business and budget.

### MIGRATE AT YOUR OWN PACE










Keeping operations running smoothly during a change in communication systems is vital to any business. It's easy to migrate to digital with XPR 7000 Series radios because they operate in analog and digital mode. To ease the transition even further, the dynamic mixed mode repeater functionality streamlines automatic switching between analog and digital calls. So you can begin using MOTOTRBO radios and repeaters on your existing analog system, and when your time and budget allow, move to digital at your own pace.

### DAY-IN, DAY-OUT DURABILITY

XPR 7000 Series radios meet the most demanding specs, including IP57 for water submersibility and U.S. Military 810 C, D, E, F, & G standards for exceptional durability. When equipped with the correct battery, the radio is certified for use in hazardous locations (HazLoc), where flammable gas, vapors or dust may be present. FM and UL approved versions are available. And it's backed by a two-year Standard Warranty, one-year Repair Service Advantage (US)/Extended Warranty (Canada) and minimum 1-year warranty for batteries and accessories.



### KEEP YOUR BUSINESS RUNNING SMOOTHLY WITH BUSINESS APPLICATIONS:

-  **Location tracking:** Monitor the whereabouts of mobile workers so they can respond immediately; in an emergency, you can pinpoint security personnel and send the nearest to the scene
-  **Integrated Bluetooth®** for sharing data wirelessly and instantly between devices
-  **Dispatch consoles** for centralized communication
-  **Email gateways** to connect to email from your radio
-  **Network monitoring** to maximize system utilization
-  **Man-down applications** so radios call for help when workers can't
-  **Telephony** for communication between radios and landline or mobile phones
-  **Text messaging** for quick and discreet communication
-  **Work order tickets** for faster customer response

## XPR 7000 SERIES SPECIFICATIONS

GENERAL SPECIFICATIONS						
	FULL DISPLAY AND KEYPAD			NO DISPLAY OR KEYPAD		
	XPR 7550		XPR 7580	XPR 7350		XPR 7380
	VHF	UHF	800/900	VHF	UHF	800/900
Channel Capacity	1000			32		
Frequency	136-174 MHz	403-512 MHz	806-825 MHz 851-870 MHz 896-902 MHz 935-941 MHz	136-174 MHz	403-512 MHz	806-825 MHz 851-870 MHz 896-902 MHz 935-941 MHz
IMPRES Hi-Cap Li-ion 2150 mAh Battery (PMNN4409)	(HxWxL) Weight	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm) 12.54 oz (355.5 g) / 12.35 oz (350.0 g)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm) 11.39 oz (323 g) / 11.20 oz (318 g)		
Slim IMPRES Li-ion 1500 mAh Battery (PMNN4407)	(HxWxL) Weight	5.13 inch / 2.17 inch / 1.41 inch (130.3 mm / 55.2 mm / 35.8 mm) 11.83 oz (335.5 g) / 11.64 oz (330.0 g)		5.13 inch / 2.17 inch / 1.35 inch (130.3 mm / 55.2 mm / 34.3 mm) 10.69 oz (303 g) / 10.49 oz (298 g)		
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery (NNTN8129) and IMPRES Hi-Cap Li-ion UL 2300 mAh Battery (NNTN8560)	(HxWxL) Weight: FM UL	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm) 12.89 oz (365.5 g) / 14.5 oz (410 g)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm) 11.75 oz (333 g) / 13.3 oz (378 g)		
Power Supply	7.5 V (Nominal)					
Operating Temperature	-30°C - +60°C <sup>1</sup>					
FCC Description	ABZ99FT3085	ABZ99FT4086	ABZ99FT5014	ABZ99FT3085	ABZ99FT4086	ABZ99FT5014
IC Description	109AB-99FT3085	109AB-99FT4086	109AB-99FT5014	109AB-99FT3085	109AB-99FT4086	109AB-99FT5014

BATTERY					
Average Battery Life	Analog / Digital, conventional operation, 5/5/90 duty cycle with carrier squelch and transmitter in high power <sup>2</sup>				
Slim IMPRES Li-ion 1500 mAh Battery	Analog: 7.7 hrs / Digital: 11.3 hrs	9.5 hrs / 12.0 hrs	Analog: 8 hrs / Digital: 11.8 hrs	9.7 hrs / 12.5 hrs	
IMPRES Hi-Cap Li-ion 2150 mAh Battery	Analog: 11.1 hrs / Digital: 16.2 hrs	13.5 hrs / 17.0 hrs	Analog: 11.5 hrs / Digital: 17 hrs	14.0 hrs / 17.8 hrs	
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery and IMPRES Hi-Cap Li-ion UL 2300 mAh Battery	Analog: 11.9 hrs / Digital: 17.3 hrs	14.5 hrs / 18.2 hrs	Analog: 12.3 hrs / Digital: 18.1 hrs	15.0 hrs / 19.0 hrs	

RECEIVER			
	VHF	UHF	800/900
Channel Spacing	12.5/25 kHz <sup>3</sup>		
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm		
Analog Sensitivity (12dB SINAD)	0.3uV (0.22uV typical)		
Digital Sensitivity (5% BER)	0.25uV (0.19uV typ)		
Intermodulation (TIA603D)	70 dB		
Adjacent Channel Selectivity (TIA603A)-1T	60dB @ 12.5 kHz / 70dB @ 25 kHz <sup>3</sup>		
Adjacent Channel Selectivity (TIA603D)-2T	45dB @ 12.5 kHz / 70dB @ 25 kHz <sup>3</sup>		
Spurious Rejection (TIA603D)	70 dB		
Rated Audio	0.5W		
Audio Distortion @ Rated Audio	5% (3% typical)		
Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz <sup>3</sup>		
Audio Response	TIA603D		
Conducted Spurious Emission (TIA603D)	-57dBm		

TRANSMITTER			
	VHF	UHF	800/900
Channel Spacing	12.5/25 kHz <sup>3</sup>		
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm		
Low Power Output	1W	1W	1W
High Power Output	5W	4W	2.5W
Modulation Limiting	± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz <sup>3</sup>		
FM Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz <sup>3</sup>		
Conducted/Radiated Emission	-36 dBm < 1GHz / -30 dBm > 1GHz		
Adjacent Channel Power	60dB @ 12.5 kHz / 70dB @ 25 kHz <sup>3</sup>		
Audio Response	TIA603D		
Audio Distortion	3%		
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D & 7K60FXD		
	12.5 kHz Voice: 7K60F1E & 7K60FXE		
	Combination of 12.5 kHz Voice & Data: 7K60F1W		
Digital Vocoder Type	AMBE+2™		
Digital Protocol	ETSI TS 102 361-1, -2, -3		

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**GPS**

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

TTF (Time To First Fix) - Cold Start	< 60 seconds
TTF (Time To First Fix) - Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

**BLUETOOTH**

Version	Supports Bluetooth® 2.1 + EDR Specification
Range	Class 2, 10 meters

**HAZARDOUS LOCATION APPROVALS**

**FM Approvals**

XPR 7000 Series radios are FM Approved for use in Hazardous Locations, Division 1, Class I, II, III, Groups C, D, E, F, G, when properly equipped with Motorola FM Approved Battery NNTN8129.

**UL Approvals**

XPR 7000 Series radios are UL Approved for use in Hazardous Locations, Division 1, Class I, II, III, Groups C,D,E, F, G, when properly equipped with Motorola UL Approved battery NNTN8560.

**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 61000-4-2 Level 3
Dust and Water Intrusion	IEC 60529 - IP57
Packaging test	MIL-STD 810D and E

Testing completed using portable radio with attached battery and antenna.

**8/900 BAND SUPPORT**

XPR 7380 and XPR7580 radios support only the following frequencies:

**TX:** 806.0125, 806.5125, 807.0125, 807.5125, 808.0125, 809.000 - 820.9875, 821.0125, 821.5125, 822.0125, 822.5125, 823.0125, 824.000 - 825.000 and 896.000 - 902.000.

**TX/RX:** 851.0125, 851.5125, 852.0125, 852.5125, 853.0125, 854.000 - 865.9875, 866.0125, 866.5125, 867.0125, 867.5125, 868.0125, 869.000 - 870.000 and 935.000 - 941.000

<sup>1</sup> Radio only - Li-Ion battery -10°C to +60°C

<sup>2</sup> Actual battery runtime observed may vary based on the use of certain features such as GPS, Bluetooth, and Expansion Card based applications.

Battery life for trunking operation may be up to 30% less than for conventional operation.

Please contact your Motorola sales representative for battery runtime expectations based on your specific radio configuration.

<sup>3</sup> 25kHz channel available in Canada only. 25kHz channel not available for 900 band.

**MILITARY STANDARDS**

APPLICABLE MIL-STD	810C		810D		810E		810F		810G	
	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.5	I-A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I-C3, II/C1	502.5	I, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I-A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, VI

For more information on how to strengthen your portable voice, visit [motorolasolutions.com/mototrbo](http://motorolasolutions.com/mototrbo)

Specifications subject to change without notice. All specifications shown are typical.

Radio meets applicable regulatory requirements. Version 3 06/14

Motorola Solutions, Inc.  
 1301 East Algonquin Road Schaumburg, Illinois 60196, U.S.A. 800-367-2346  
[motorolasolutions.com](http://motorolasolutions.com)

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 DIGITAL  
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