



**YOUR VOICE JUST GOT STRONGER**

# MOTOTRBO™ XiR™ P8600 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. XiR P8600 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 XiR P8600 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.

## PRODUCT SPEC SHEET

MOTOTRBO™ XiR P8600 SERIES PORTABLE RADIOS

### AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. XiR P8600 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

XiR P8600 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

XiR P8600 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 combines the expanded capacity of Capacity Plus with the wide area coverage of IP Site Connect, delivering a high capacity, wide area, and cost effective multi-site 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 XiR P8600 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

XiR P8600 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. The radio is also "intrinsically safe" when purchased and equipped with an intrinsically safe (FM) battery, for use in environments where flammable gas, vapors or combustible dust may be present. And it's backed by a two-year Standard Warranty, and 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

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MOTOTRBO™ XiR P8600 SERIES PORTABLE RADIOS

**XiR P8600 SERIES SPECIFICATIONS**

GENERAL SPECIFICATIONS								
DISPLAY XiR P8668/P8660/P8628/P8620					NON DISPLAY XiR P8608/P8600			
		VHF		UHF	VHF		UHF	
Channel Capacity	1000				32			
Frequency	136-174 MHz	350-400 MHz	403-527MHz	800/900 MHz	136-174 MHz	350-400 MHz	403-527MHz	800/900 MHz
IMPRES Hi-Cap Li-ion 2150 mAh Battery (PMNN4409)	(HxWxL)	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm)			5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm)			
	Weight	12.54 oz (355.5 g)			11.39 oz (323 g)			
Slim IMPRES Li-ion 1500 mAh Battery (PMNN4407)	(HxWxL)	5.13 inch / 2.17 inch / 1.41 inch (130.3 mm / 55.2 mm / 35.8 mm)			5.13 inch / 2.17 inch / 1.35 inch (130.3 mm / 55.2 mm / 34.3 mm)			
	Weight	11.83 oz (335.5 g)			10.69 oz (303 g)			
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery (NNTN8129) *Not for 350 MHz	(HxWxL)	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm)			5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm)			
	Weight	12.89 oz (365.5 g)			11.75 oz (333 g)			
Power Supply	7.5 V (Nominal)							
Operating Temperature	-30 ~ +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	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		Analog: 8 hrs/ Digital: 11.8 hrs
IMPRES Hi-Cap Li-ion 2150 mAh Battery	Analog: 11.1 hrs/Digital: 16.2 hrs		Analog: 11.5 hrs/Digital: 17 hrs
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery	Analog: 11.9 hrs/Digital: 17.3 hrs		Analog: 12.3 hrs/Digital: 18.1 hrs

RECEIVER			
	VHF		UHF
Frequencies	136-174 MHz	350-400 MHz	403-527/800/900 MHz
Channel Spacing	12.5/25kHz		
Frequency Stability (-30°C, +60°C, +25°C Ref)	± .5 ppm		
Analog Sensitivity (12dB SINAD)	0.3uV (0.22uV typical)		
Digital Sensitivity	0.25 uV (0.19 uV typical)		
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
Frequencies	136-174 MHz	350-400 MHz	403-527/800/900 MHz
Channel Spacing	12.5/25 kHz		
Frequency Stability	± 1.5 ppm		
Low Power Output	1W		1W
High Power Output	5W	4W	4W/2.5W
Modulation Limiting	± 2.5kHz @ 12.5 kHz / ± 5.0kHz @ 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)

TTFF (Time To First Fix) - Cold Start	< 60 seconds
TTFF (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

**FACTORY MUTUAL APPROVALS**

MOTOTRBO XiR P8600 Series portable radios have been certified by FM in accordance with U.S. Codes as intrinsically safe for use in Class I, II, III, Division 1, Groups C, D, E, F, G, when properly equipped with a Motorola FM approved battery option. They are also approved for use in Class I, Division 2, Groups A, B, C, D.

**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.

<sup>1</sup> Radio only - Li-Ion battery -10C

<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.

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

**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

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

- Conforms to:
- EC 1999/5/EC (R&TTE – Radio and Telecommunications Terminal Equipment)
  - EN 300 086
  - EN 300 113

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

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REMASTERED.

