



# MOTOTRBO™ XiR E8600 SERIES PORTABLE RADIO

NOW YOU'RE READY FOR ANYTHING



You have to be agile while you stay connected. You need an unobtrusive radio that's tough enough to handle workplace abuse, but doesn't get in your way. Now there's an extra-small portable that gives you all of that, plus all the advanced features of digital technology to elevate communications in your business.

Versatile and powerful, MOTOTRBO™ combines the best of two-way radio functionality with the latest analogue and digital technology. The MOTOTRBO portfolio gives you the right device for the right user, from voice-only portables to feature-rich voice and data radios.

Incredibly compact and exceptionally rugged, the MOTOTRBO XiR E8600 Series is the perfect solution for the professional on the move. It integrates voice and data seamlessly, offers enhanced features that are easy to use, and delivers business-critical advantages like integrated Bluetooth® and Intelligent Audio.

The XiR E8600 Series fits comfortably in your hand, so you can carry it easily. Place it on your belt in its custom carry holster and move freely while you stay light on your feet. It's loaded with all the benefits of the latest digital technology – superb audio quality, amazing clarity, outstanding coverage, long-lasting battery life and more.

The XiR E8600 Series keeps you agile and in touch in tough work environments, helping you to achieve even greater efficiency and safety.

## FEATURES

- Analogue / Digital
- Voice / Data
- Intelligent Audio
- Enhanced Privacy
- IMPRES™ Audio
- Bluetooth Audio
- Bluetooth Data
- Integrated GPS Receiver
- Emergency button
- Dual Capacity Direct Mode
- Digital Mobile Radio (DMR) Standards Compliant
- IP67 Rated

## OPTIONS

- Radio Management Suite
- Over The Air Programming (OTAP)
- Transmit Interrupt

## SYSTEMS COMPATIBILITY

- IP Site Connect
- Capacity Plus
- Linked Capacity Plus

SMALL, TOUGH AND POWERFUL, FOR THE DEMANDING PROFESSIONAL WHO WANTS TO STAY LIGHT ON THEIR FEET

**PRODUCT SPEC SHEET**

MOTOTRBO™ XiR E8600 SERIES PORTABLE RADIO

**HEAR AND BE HEARD CLEARLY OVER NOISE**

When it comes to exceptional audio quality, digital technology can't be beaten. XiR E8600 Series portables give you digital audio performance throughout your coverage area plus unique features to help employees hear and be heard clearly, wherever they work.

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

**UNLEASH THE POWER OF YOUR RADIO**

Choose the only accessories designed and certified for Motorola portables. Our IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for clarity and quality like you've never experienced before. (See separate accessories fact sheet for full portfolio.) Because the XiR E8600 Series shares chargers and accessories with other Motorola radios, you get even more out of your MOTOTRBO™ solution

**STREAMLINE THE WORKDAY WITH INTEGRATED DATA**

XiR E8600 Series portable radios feature integrated Bluetooth® to share information wirelessly and instantly between devices. Now rather than waiting until the end of a shift, busy work crews can send real-time data directly to the office, saving time and enhancing decision-making.

Integrated GPS enables location tracking of mobile work teams, helping improve personnel safety and operational efficiency. And if an emergency occurs, you can pinpoint security personnel and quickly dispatch the nearest to the scene.

**WATER AND DUST-TIGHT TOUGH**

Drop it, wet it, submerge it, blast it with dust and dirt. The XiR E8600 Series powers through harsh environments and inhospitable conditions so your teams have reliable communications to do their jobs, safely and efficiently – whether they're a grounds crew on a golf course or a private security team on campus.

The XiR E8600 Series is IP67-rated, and meets or exceeds U.S. Military Standard 810 C, D, E, F, & G standards for exceptional durability. It undergoes the grueling Motorola Accelerated Life Testing, so you can be assured it will last. These tests simulate up to five years of hard use in the most challenging environments.

**MIGRATE AT YOUR OWN PACE**

It's easy to migrate from analogue to digital because XiR E8600 Series operates in both modes. A dynamic mixed mode repeater functionality streamlines automatic switching between analogue and digital calls. So you can use your existing analogue system and move to digital when time and budget allow.







**INTEGRATE YOUR DEVICES SEAMLESSLY**

Make sure your new MOTOTRBO system is ready when you are. We can bring together the right experts and processes to help you integrate XiR E8600 Series radios into your existing system, quickly and cost-effectively. This includes Coverage Mapping, Site Integration, Device Programming and IP Networking Services.

**GET DURABILITY THAT ENDURES**

MOTOTRBO radios are made to last and backed by a two-year Standard Warranty, with 1-year warranty for batteries and Motorola-branded accessories. In addition, Service from the Start provides multi-year peace of mind with fast repair turnaround times, expert telephone technical support and access to the latest software releases\*; all backed by Motorola's globally integrated services infrastructure, highly qualified support technicians and certified repair facilities.

**MOTOROLA ACCELERATED LIFE TESTING PROGRAM**

 <p><b>RAIN</b> Steady rainfall and wind for 30 minutes on every surface</p>	 <p><b>BLOWING DUST</b> Six hours of blowing dust on all surfaces</p>
 <p><b>VIBRATION</b> Up to 9 hours of exposure to vibration that simulates the rigors a radio could undergo while being carried or transported</p>	 <p><b>DROP ONTO HARD SURFACE</b> 18 drops with a minimum G force of 40 G each, that simulate everyday bumps, knocks and rough treatment</p>
 <p><b>SALT FOG</b> 48 hours of exposure, to test resistance to corrosive atmospheres</p>	 <p><b>TEMPERATURE STORAGE</b> Multiple hours of exposure to storage temperatures as low as -55°C and as high as 70°C</p>

\* Software release covers patches and maintenance releases of the current version to the operating system i.e. that shipped with the terminal.

## PRODUCT SPEC SHEET

### MOTOTRBO™ XiR E8600 SERIES PORTABLE RADIO

#### GENERAL SPECIFICATIONS

	NON-DISPLAY	
	VHF	UHF
Channel Capacity	32	
Frequency	136-174 MHz	403-527 MHz
Radio dimensions, when equipped with Slim Standard Li-Ion (1600 mAh) Battery (PMNN4440)		
Height (H)	100 mm	
Width (W)	63 mm	
Thickness (T)	34 mm	
Weight	254 g	
Power Supply	7.5V (Nominal)	
Operating Temperature	-30°C <sup>2</sup> / +60°C	
IC Description	109U-89FT3833	109U-89FT4914

#### BATTERY

Average battery life at 5/5/90 duty cycle with carrier squelch and transmitter in high power.<sup>1</sup>

Slim Standard Li-Ion (1600 mAh) Battery (PMNN4440)	Analogue: 8.5 hrs Digital: 12.3 hrs
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#### RECEIVER

Channel Spacing	12.5 kHz / 20 kHz / 25 kHz
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm
Analogue Sensitivity (12 dB SINAD) Typical	0.3 uV (0.22 uV typical)
Digital Sensitivity (5% BER)	0.25 uV (0.19 uV typical)
Intermodulation (TIA603D)	70 dB
Adjacent Channel Selectivity (TIA603A)-1T	60 dB @ 12.5 kHz 70 dB @ 20/25 kHz
Adjacent Channel Selectivity (TIA603D)-2T	45 dB @ 12.5 kHz 70 dB @ 20/25 kHz
Spurious Rejection (TIA603D)	70 dB
Rated Audio	0.5 W
Audio Distortion @ Rated Audio	5% (3% typical)
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
Audio Response	TIA603D
Conducted Spurious Emissions (TIA603D)	-57 dBm

#### TRANSMITTER

Channel Spacing	12.5 kHz / 20 kHz / 25 kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Low Power Output	1 W	
High Power Output	5 W	4 W
Modulation Limiting	± 2.5 kHz @ 12.5 kHz ± 4.0 kHz @ 20 kHz ± 5.0 kHz @ 25 kHz	
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz	
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz	
Adjacent Channel Power	60 dB @ 12.5 kHz 70 dB @ 20/25 kHz	
Audio Response	TIA603D	
Audio Distortion	3%	
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D and 7K60FXD 12.5 kHz Voice: 7K60F1E and 7K60FXE Combination of 12.5 kHz Voice and Data: 7K60F1W	
Digital Vocoder Type	AMBE +2™	
Digital Protocol	ETSI TS 102 361-1, -2, -3	

<sup>1</sup> Actual battery runtime observed may vary based on the use of certain features such as GPS, Bluetooth, and Expansion Card based applications.

<sup>2</sup> Radio only - Li-Ion battery -10°C

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

**PRODUCT SPEC SHEET**

**MOTOTRBO™ XiR E8600 SERIES PORTABLE RADIO**

**GPS (FOR XiR E8608 ONLY)**

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 (FOR XiR E8608 ONLY)**

Version	Supports Bluetooth® 2.1 + EDR Specification
Range	Class 2, 10 meters
Profiles Supported	Bluetooth Headset Profile (HSP), Serial Port Profile (SPP), Motorola fast push-to-talk.
Devices Supported	Radio supports 1 Bluetooth audio accessory and 1 Bluetooth data device simultaneously

**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	I/24, II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, VI

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-30°C <sup>2</sup> / +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 - IP67
Packaging Test	MIL-STD 810F and G

Testing completed using portable radio with attached battery and antenna.

<sup>1</sup> Actual battery runtime observed may vary based on the use of certain features such as GPS, Bluetooth, and Expansion Card based applications.

<sup>2</sup> Radio only - Li-Ion battery -10°C

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

Radio meets applicable regulatory requirements.

For more information on the MOTOTRBO™ XiR E8600™, visit [motorolasolutions.com/mototrbo](http://motorolasolutions.com/mototrbo).

To find your nearest Motorola Channel Partner, go to [motorolasolutions.com/contactus](http://motorolasolutions.com/contactus).

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**MOTOTRBO™**  
DIGITAL REMASTERED.

