



YOUR MOBILE JUST GOT STRONGER

MOTOTRBO™ XiR™ M8600 SERIES DIGITAL TWO-WAY MOBILE RADIOS

From the delivery driver crisscrossing the city to the sanitation crew clearing streets, MOTOTRBO™ can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and exceptional 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 M8600 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver operations-critical advantages like integrated Bluetooth® and Intelligent Audio.

The XiR M8600 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.

PRODUCT SPEC SHEET

MOTOTRBO™ XiR M8600 SERIES MOBILE RADIOS

SUPERB AUDIO

When it comes to exceptional audio clarity, the quality of digital can't be denied. With XiR M8600 Series mobiles, you get all the benefits of digital plus unique features to help your employees hear and be heard clearly, wherever they work.

Intelligent Audio automatically adjusts the radio's volume in response to background noise: you can hear clearly when you're driving, and you're not deafened when the engine is switched off. IMPRES™ Audio filters out unwanted external clamor, so you can always be heard clearly at the other end. And integrated Bluetooth® Audio capability gives you the freedom to work without wires.

FULL DATA CAPABILITIES

XiR M8600 Series radios allow you to exploit the full capabilities of digital two way radio. Beyond simple voice, you can use data, text messaging, location-tracking and work order ticket management to improve your workforce's safety, efficiency and accountability.

All XiR M8600 Series radios have integrated GPS, enabling location tracking of your mobile work teams. And to facilitate information collection in the field, you can use the Bluetooth® data option to wirelessly interface with Bluetooth®-enabled devices such as barcode scanners.

MOTOTRBO's Application Developer Program brings you the industry's largest selection of data applications. Our partnership with industry innovators empowers you to create a system that meets your business needs.

COMPREHENSIVE PERSONALIZATION

A broad range of complementary accessories are available for XiR M8600 Series radios. The Long Range Wireless Mobile Microphone allows you to stay connected even when you're up to 100m (330 ft) from your vehicle. The Handheld Control Head puts total control into your hand, allowing you to install the radio in a convenient location. There's even a telephonestyle handset for discreet communications to VIP bus and limousine drivers. However you communicate, your XiR M8600 Series radio can be customized to fit your style.

FEATURE-RICH POWERHOUSE

XiR M8600 Series radios are designed for the demanding user. They offer advanced features such as transmit interrupt, enhanced privacy and text-to-speech. Four programmable buttons on the front panel allow you to customize the radio for quick access to frequently-used features.

EXPANDED CAPACITY AND COVERAGE

Your work crews need the capacity, coverage and control of MOTOTRBO. Systems can be scaled to your needs, so as your business grows, your communications capabilities can grow with you. The XiR M8600 Series is compatible with all MOTOTRBO system types:

Direct Mode (Talkaround) allows radios to communicate directly with other radios, for instance when the network is down.

Single Site Conventional systems offer baseline coverage and capacity through a MOTOTRBO repeater.

IP Site Connect connects multiple repeaters to enhance single site coverage or link geographically dispersed locations.

Capacity Plus implements cost-effective dynamic trunking to expand single-site capacity.

Linked Capacity Plus combines the benefits of Capacity Plus and IP Site Connect to give you dynamic trunking at multiple sites.

Connect Plus is MOTOTRBO's full trunking solution for single or multiple sites, giving you the best coverage, capacity and control.

MIGRATE AT YOUR OWN PACE

Keeping operations running smoothly during a change in communication systems is vital to business. It's easy to migrate to digital with XiR M8600 Series radios because they can operate in analog and digital mode concurrently. MOTOTRBO repeaters further ease the transition with their mixed mode capability 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 M8600 Series radios are made to last. They are rated IP54 (splashproof, virtually dustproof), so they can be used even in harsh environments. Moreover, they have been proven tough in Motorola's grueling Accelerated Life Test program, in which the design must survive a simulated 5 years of hard service before it is accepted.

The XiR M8600 Series is backed by a two-year Standard Warranty and a one-year warranty for accessories. Because wear and tear happens, Motorola recommends Service from the Start, which delivers accelerated turnaround on radio repairs and even covers shipping costs. By reducing your downtime, Service from the Start helps you to lower your total cost of ownership and focus on your business operations, not your technology.



XiR M8668/ M8660/ M8628/ M8620 SERIES SPECIFICATIONS

GENERAL SPECIFICATIONS										
		XiR M8660			XiR M8668	XiR M8620			XiR M8628	
		VHF	UHF Band 1	UHF Band 2	800/900	VHF	UHF Band 1	UHF Band 2	800/900	
Channel Capacity		Up to 1,000	Up to 1,000	Up to 1,000	Up to 1,000	32	32	32	32	
Typical RF Output	Low Power	1-25 W	1-25 W			1-25 W	1-25 W			
	High Power	25-45 W	25-40 W	1-40 W	806-870 MHz: 10-35 W 896-941 MHz: 10-30 W	25-40 W	25-40 W	1-40 W	806-870 MHz: 10-35 W 896-941 MHz: 10-30 W	
Dimensions (H x W x L)		2.1 x 6.9 x 8.1 in (53.3 x 175.3 x 205.7 mm)								
Weight		3.9 lbs (1.8 kg)								
Maximum Current Drain	Standby	0.81 A								
	Receive (Rated Audio)	2 A								
	Transmit	1-25 W: 11.0 A 25-45 W: 14.5 A	1-25 W: 11.0 A 25-40W: 14.5 A	1-25 W: 11.0 A 25-40 W: 14.5 A	12A	1-25 W: 11.0 A 25-45 W: 14.5 A	1-25 W: 11.0 A 25-40 W: 14.5 A	1-25 W: 11.0 A 25-40 W: 14.5 A	12A	
FCC Description		1-25 W: ABZ99FT3086 25-45 W: ABZ99FT3087	1-25 W: ABZ99FT4087 25-40 W: ABZ99FT4088	1-40 W: ABZ99FT4085	AZ492FT5862	1-25 W: ABZ99FT3086 25-45 W: ABZ99FT3087	1-25 W: ABZ99FT4087 25-40 W: ABZ99FT4088	1-40 W: ABZ99FT4085	AZ492FT5862	
IC Description		1-25 W: 109AB-99FT3086 25-45 W: 109AB-99FT3087	1-25 W: 109AB-99FT4087 25-40 W: 109AB-99FT4088	1-40 W: 109AB-99FT4085	109U-92FT5862	1-25 W: 109AB-99FT3086 25-45 W: 109AB-99FT3087	1-25 W: 1009AB-99FT4087 25-40 W: 109AB-99FT4088	1-40 W: 109AB-99FT4085	109U-92FT5862	

RECEIVER				
	VHF	UHF Band 1	UHF Band 2	800/900
Frequencies	136-174 MHz	403-470 MHz	450-527 MHz	806-870 MHz 890-941 MHz
Channel Spacing	12.5 kHz / 25 kHz*			806-870 MHz 12.5/25 kHz* 896-941 MHz: 12.5 kHz
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm			
Analog Sensitivity (12dB SINAD)	0.3 uV, 0.22 uV (typical)			
Digital Sensitivity	5% BER @ 0.25 uV (0.19uV typical)			5% BER @ 0.3 uV
Intermodulation (TIA603D)	78 dB			75 dB
Adjacent Channel Selectivity (TIA603D)	50 dB @ 12.5 kHz 80 dB @ 25 kHz*	50 dB @ 12.5 kHz 75 dB @ 25 kHz*		
Spurious Rejection (TIA603D)	80 dB	75 dB		
Rated Audio	3 W (Internal), 7.5 W (External - 8 ohms), 13 W (External - 4 ohms)			
Audio Distortion @ Rated Audio	3% (typical)			
Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz*			
Audio Response	TIA603D			
Conducted Spurious Emission (TIA603D)	-57 dBm			

TRANSMITTER				
	VHF	UHF Band 1	UHF Band 2	800/900
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	806-870 MHz 890-941 MHz
Channel Spacing	12.5 kHz / 25 kHz			806-870 MHz 12.5/25 kHz* 896-941 MHz: 12.5 kHz
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm			
Low Power Output	1-25 W			
High Power Output	25-45 W		1-40 W	806-870 MHz 10-35W 896-941 MHz 10-30W
Modulation Limiting	± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz*			
FM Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz*			
Conducted/ Radiated Emission	-36 dBm < 1 GHz / -30dBm > 1GHz			
Adjacent Channel Power	60 dB @ 12.5 kHz / 70 dB @ 25 kHz*			50 dB @ 12.5 kHz/ 60 dB @ 25 kHz*
Audio Response	TIA603D			
Audio Distortion	3%			
FM Modulation	12.5 kHz: 11K0F3E / 25 kHz*: 16K0F3E			
4FSK Digital Modulation	12.5 kHz Data Only: 7K60F1D & 7K60FXD			
	12.5 kHz Voice: 7K60F1E & 7K60FXE			7K60FXE
	Combination of 12.5 kHz Voice & Data: 7K60F1W			N/A
Digital Vocoder Type	AMBE+2™			
Digital Protocol	ETSI TS 102 361-1, -2, -3			

*25 kHz is NOT available in the USA. FCC narrowbanding rules do not allow operation of this model on 25 kHz configuration in Part 90 VHF/UHF frequencies

MILITARY STANDARDS: XiR M8660 / XiR M8668

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/C3, 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 - Aggravated
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
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, V, VI

GPS: XiR M8668

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	< 1 minute
TTFF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

BLUETOOTH: XiR M8668

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

**ENVIRONMENTAL SPECIFICATIONS:
XiR M8660 / XiR M8668**

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	IP54, MIL-STD
Packaging test	MIL-STD 810C, D, E, F, and G

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

Radio meets applicable regulatory requirements.

For more information on how to strengthen your mobile voice, visit motorolasolutions.com/ap/mototrbo

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XiR M8600 Series product spec sheet.Rev 4_12/2014

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 DIGITAL
 REMASTERED.