

## MOTOTRBO

XiR M8260/M8268/M8220/M8228 Mobile Radios

## MOTOTRBO PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM THE FUTURE OF TWO-WAY RADIO

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next connecting people, delivering mobility and making technology personal. Versatile and powerful, MOTOTRBO combines the best in two-way radio functionality with digital technology, making it the ideal communication solution for your business. You get enhanced features, increased capacity, integrated data applications, exceptional voice quality and extended battery performance. This means more productive employees and lower operating costs for your business.



- Integrates Voice and Data into one device to increase your operational efficiency and support integrated applications including MOTOTRBO Text Messaging Services. Also features an integrated GPS module for use with third-party locationtracking applications.
- Uses Time-Division Multiple-Access (TDMA) digital technology to provide **Twice The Calling Capacity** (as compared to analog or FDMA radios) for the price of one frequency license. A second call doesn't require a second repeater, saving you equipment costs.
- In digital mode, provides Clearer
   Voice Communications throughout the coverage area, as compared to analog radios, rejecting static and noise.
- Features the **Transmit Interrupt Suite\*** —voice interrupt, remote voice dekey, emergency voice interrupt —to help prioritize critical communication exactly when needed.
- The IP Site Connect\* digital solution uses the Internet to extend coverage of your MOTOTRBO communication system to users anywhere in the world for dramatically improved customer service and increased productivity.
- Capacity Plus\* is a scalable, singlesite digital trunking solution that can expand the capacity of your MOTOTRBO communication to over a thousand radio users without adding new frequencies.
- Motorola's Application Developer Program enables the development of customized data applications that adapt MOTOTRBO radios to meet the unique needs of your business.

## **MOTOTRBO™ Mobile Radio**

	XiR M8260 Display Non GPS Model XiR M8268 Display GPS Model			XiR M8220 Non-Display Non-GPS Model XiR M8228 Non-Display GPS Model			
	UH		VHF		JHF	VHF	
Channel Capacity		1000			32	2	
requencies	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	
Vimension (HxWxT)		51 x 175 x 20	06 mm		51 x 175 x	: 206 mm	
Veight		1.8 kg (4.0	lbs)		1.8 kg (4	4.0 lbs)	
urrent Drain (High Power)							
itandby		0.81 A m	ax		0.81 A	max	
Rx @ Rated Audio	2 A max			2 A max			
x @ Rated Audio	14.5 A max		ax	14.5 A max		max	
Power Supply		13.8 VD	С	13.8 VDC		VDC	
CC Description		1-40W: ABZ99FT4083	1-25W : ABZ99FT3083	1-25W : ABZ99FT4081	1-40W: ABZ99FT4083	1-25 W : ABZ99FT308	
D700FT0000	25-40W : ABZ99FT4080		25-45W : ABZ99FT3082	25-40 W : ABZ99FT4080	)	5-45 W :	
BZ99FT3082 Receiver							
requencies	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450 512 MHz	136-174 MHz	
hannel Spacing	12.5 kHz/ 25 kHz			403-470 MHz 450-512 MHz 136-174 MHz 12.5 kHz/ 25 kHz			
requency Stability	+/- 1.5 ppm (XiR M8260)						
-30° C, +60° C, +25° C)				+/- 1.5 ppm (XiR M8220)			
nalog Sensitivity	+/- 0.5 ppm (XiR M8268)			+/- 0.5 ppm (XiR M8228)			
Analog Sensitivity	0.3 uV (12 dB SINAD)			0.3 uV (12 dB SINAD)			
	0.4 uV (20 dB SINAD)			0.4 uV (20 dB SINAD)			
Nigital Sensitivity	0.22 uV (typical) 5% BER: 0.3 uV			0.22 uV (typical) 5% BER: 0.3 uV			
Digital Sensitivity ntermodulation		5% BER: 0	.o uv		5% BEK:	0.3 UV	
TA603C	75 -1	_	70 40		dP	70 40	
	75 d		78 dB		i dB	78 dB	
TS djacent Channel Selectivity	60 dB		60 dB	60 dB 60 dB		00 QB	
Adjacent Channel Selectivity TIA603, ETS)	60 dB @ 12.5 kHz 70 dB @ 25 kHz			60 dB @ 12.5 kHz			
		70 dB @ 25	6 KHZ		70 dB @ 25 kHz		
purious Rejection	75 4		00 -ID	75	- ID	00 -10	
1A603C	75 d		80 dB		75 dB 80 dB		
TS	70 d		70 dB	//	70 dB 70 dB		
lated Audio	3 W (Internal)			3 W (Internal)			
	7.5 W (External - 8 ohms)			7.5 W (External - 8 ohms)			
	13 W (External - 4 ohms)			13 W (External - 4 ohms) 3% (typical)			
Audio Distortion @ Rated Audio		3% (typic		3% (typical)			
lum and Noise		-40 dB @ 12		-40 dB @ 12.5 kHz			
		-45 dB @ 25 kHz			-45 dB @ 25 kHz		
Audio Response		+ 1, -3 dB			+ 1, -3 dB -57 dBm		
Conducted Spurious Emission		-57 dBr	n		-57 di	Bm	
ransmitter							
requencies	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	
Power Output	400 470 10112	400 012 10112	100 174 14112	400 470 10112	400 012 10112	100 174 10112	
ow Power	1-25 W	1-40 W	1-25 W	1-25 W	1-40 W	1-25 W	
ligh Power	25-40 W		25-45 W	25-40 W		25-45 W	
hannel Spacing	12.5 kHz/ 25 kHz		12.5 kHz/ 25 kHz				
requency Stability	+/- 1.5 ppm (XiR M8260)		+/- 1.5 ppm (XiR M8220)				
30° C, +60° C, +25° C)	+/- 1.5 ppm (XiR M8268)			+/- 1.5 ppm (XIR M8220) +/- 0.5 ppm (XIR M8228)			
		+/- 0.5 kHz @ 12.5 kHz			+/- 0.5 ppm (XIR M8228) +/- 2.5 kHz @ 12.5 kHz		
		+/-25kHz@	12.5 kHz	+/- 5.0 kHz @ 25 kHz			
					+/- 5 0 kHz (		
Iodulation Limiting		+/- 5.0 kHz @	25 kHz				
Nodulation Limiting		+/- 5.0 kHz @ -40 dB @ 12	25 kHz 5 kHz		-40 dB @ 1	2.5 kHz	
Aodulation Limiting M Hum and Noise		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 2!	25 kHz 5 kHz 5 kHz		-40 dB @ 1 -45 dB @ 1	2.5 kHz 25 kHz	
Addulation Limiting M Hum and Noise Conducted / Radiated Emission		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 25 -36 dBm < 7	25 kHz 5 kHz 5 kHz 1 GHz		-40 dB @ 1 -45 dB @ 1 -36 dBm <	2.5 kHz 25 kHz : 1 GHz	
Aodulation Limiting M Hum and Noise Conducted / Radiated Emission		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 25 -36 dBm < -30 dBm >	25 kHz 5 kHz 5 kHz 1 GHz 1 GHz		-40 dB @ 1 -45 dB @ 3 -36 dBm < -30 dBm >	2.5 kHz 25 kHz < 1 GHz > 1 GHz	
Aodulation Limiting		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 25 -36 dBm < -30 dBm > -60 dB @ 12	25 kHz 5 kHz 6 kHz 1 GHz 5 kHz 5 kHz		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1	2.5 kHz 25 kHz < 1 GHz > 1 GHz 2.5 kHz	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 2! -36 dBm < ' -30 dBm > ' -60 dB @ 12 -70 dB @ 2!	25 kHz 5 kHz 1 GHz 1 GHz 5 kHz 5 kHz		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -30 dB @ 1 -60 dB @ 1 -70 dB @	2.5 kHz 25 kHz < 1 GHz > 1 GHz 2.5 kHz 25 kHz	
Modulation Limiting M Hum and Noise conducted / Radiated Emission djacent Channel Power udio Response		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 21 -36 dBm < -30 dBm < -60 dB @ 12 -70 dB @ 21 +1, -3 d	25 kHz 5 kHz 1 GHz 1 GHz 5 kHz 5 kHz		-40 dB @ 1 -45 dB @ : -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ : +1,-3	2.5 kHz 25 kHz 1 GHz 1 GHz 2.5 kHz 2.5 kHz 25 kHz dB	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 2! -36 dBm < ' -30 dBm > ' -60 dB @ 12 -70 dB @ 2! +1, -3 d -3%	25 kHz 5 kHz 5 kHz 1 GHz 1 GHz 5 kHz 5 kHz 8		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 3%	2.5 kHz 25 kHz 1 GHz 1 GHz 2.5 kHz 2.5 kHz 25 kHz dB	
Adulation Limiting M Hum and Noise conducted / Radiated Emission djacent Channel Power udio Response udio Distortion		+/-5.0 kHz @ -40 dB @ 12 -45 dB @ 2! -36 dBm < - -30 dBm > - -60 dB @ 12 -70 dB @ 2! +1,-3 d 3% 12.5 kHz : 11	25 kHz 5 kHz 5 kHz 1 GHz 5 kHz 5 kHz 8 kHz K0F3E		-40 dB @ 1 -45 dB @ 1 -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ 1 +1,-3 -3% 12.5 kHz : 1	2.5 kHz 25 kHz 21 GHz 2.1 GHz 2.5 kHz 25 kHz dB 0 11K0F3E	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 21 -36 dBm < -30 dBm < -60 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz :11 25 kHz: 16K	25 kHz 5 kHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1,-3 -3% 12,5 kHz; 16 25 kHz; 16	2.5 kHz 25 kHz 21 GHz 2.5 kHz 25 kHz 25 kHz dB 0 11K0F3E 3K0F3E	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -30 dBm & 12 -70 dB @ 21 -70 dB @ 21 +1, -3 d 3% 12.5 kHz : 11 25 kHz : 14 12.5 kHz Data Onl	25 kHz 5 kHz 5 kHz 1 GHz 1 GHz 5 kHz 5 kHz 8 K0F3E 00F3E 10F3E 10F3E 10F3E		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -3% 12.5 kHz : 1 25 kHz : 1 12.5 kHz Data O	2.5 kHz <u>25 kHz</u> 1 GHz 1 GHz 25 kHz <u>25 kHz</u> <u>4B</u> 11K0F3E Sk0F3E nly: 7K60FXD	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 21 -36 dBm < -30 dBm < -70 dB @ 21 -70 dB @ 21 +1, -3 d 3% 12.5 kHz : 11 25 kHz : 16k 12.5 kHz Data & Vo	25 kHz 5 kHz 5 kHz 1 GHz 1 GHz 5 kHz 5 kHz 8 K0F3E 0;75E 9;7K60FXD ice: 7K60FXE		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -3% 12.5 kHz : 16 12.5 kHz 12 tata 12.5 kHz Data & V	2.5 kHz 25 kHz 1 GHz 1 GHz 2 5 kHz 25 kHz 25 kHz dB 11K0F3E 3K0F3E nly: 7K60FXD /oice: 7K60FXE	
Adulation Limiting M Hum and Noise ionducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 25 -30 dBm > ' -30 dBm > ' -60 dB @ 21 -70 dB @ 21 +1, -3 d -70 dB @ 21 -70 dB @ 12 -70 dB @ 21 -70 dB	25 kHz 5 kHz 5 kHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E y: 7K60FXD ce: 7K60FXE TM		-40 dB @ 1 -45 dB @ . -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ 1 +1, -3 3% 12.5 kHz : 16 12.5 kHz Data & 12.5 kHz Data 0 12.5 kHz Data & AMBE+	2.5 kHz 25 kHz 25 kHz 2.5 kHz 2.5 kHz 25 kHz dB 11K0F3E 3K0F3E 11K0FXE 3K0F3E 10/y: 7K60FXD /oice: 7K60FXE +2 <sup>TM</sup>	
todulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 21 -36 dBm < -30 dBm < -70 dB @ 21 -70 dB @ 21 +1, -3 d 3% 12.5 kHz : 11 25 kHz : 16k 12.5 kHz Data & Vo	25 kHz 5 kHz 5 kHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E y: 7K60FXD ce: 7K60FXE TM		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -3% 12.5 kHz : 16 12.5 kHz 12 tata 12.5 kHz Data & V	2.5 kHz 25 kHz 1 GHz 2.5 kHz 2.5 kHz 25 kHz dB 11K0F3E 3K0F3E 11K0FXE 3K0F3E 10/y: 7K60FXD /oice: 7K60FXE +2 <sup>TM</sup>	
todulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type igital Protocol		+/- 5.0 kHz @ -40 dB @ 12 -45 dB @ 25 -30 dBm > ' -30 dBm > ' -60 dB @ 21 -70 dB @ 21 +1, -3 d -70 dB @ 21 -70 dB @ 12 -70 dB @ 21 -70 dB	25 kHz 5 kHz 5 kHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E y: 7K60FXD ce: 7K60FXE TM	Environmental Specifi	-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -3% 12.5 kHz : 1 25 kHz: 1 25 kHz Data & AMBE+ ETSI-TS10	2.5 kHz 25 kHz 1 GHz 2.5 kHz 2.5 kHz 25 kHz dB 11K0F3E 3K0F3E 11K0FXE 3K0F3E 10/y: 7K60FXD /oice: 7K60FXE +2 <sup>TM</sup>	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type igital Protocol	25th percentile values > 5 satelli	+/- 5.0 kHz @ -40 dB @ 21 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -70 dB @ 12 -70 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz 11 25 kHz 12 kHz 12.5 kHz Data Qnl 12.5 kHz Data & Vo AMBE+2 ETSI-TS102	25 kHz 5 kHz 6 KHz 1 GHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E 0F3E y: 7K60FXD ice: 7K60FXE 17M 361-1		-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -3% 12.5 kHz : 1 25 kHz: 1 25 kHz: 1 12.5 kHz Data 0 12.5 kHz Data & V AMBE+ ETSI-TS10	2.5 kHz <u>25 kHz</u> 1 GHz 1 GHz 25 kHz <u>25 kHz</u> <u>25 kHz</u> <u>4B</u> 11K0F3E <u>350F3E</u> nly: 7K60FXD <u>/oice:</u> 7K60FXE <u>+2<sup>TM</sup></u> <u>2</u> 361-1	
Adulation Limiting M Hum and Noise ionducted / Radiated Emission djacent Channel Power udio Distortion M Modulation FSK Digital Modulation FSK Digital Modulation igital Vocoder Type igital Protocol iPS ccuracy specs are for long-term tracking (S		+/- 5.0 kHz @ -40 dB @ 21 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -70 dB @ 12 -70 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz 11 25 kHz 12 kHz 12.5 kHz Data Qnl 12.5 kHz Data & Vo AMBE+2 ETSI-TS102	25 kHz 5 kHz 6 KHz 1 GHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E 0F3E y: 7K60FXD ice: 7K60FXE 17M 361-1	Operating Temperature	-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ +1, -3 -70 dB @ -70	2.5 kHz 25 kHz 25 kHz 1 GHz 2 5 kHz 25 kHz 25 kHz dB 11K0F3E 35K0F3E nly: 7K60FXD /oice: 7K60FXD /oice: 7K60FXE +2 <sup>TM</sup> 2 361-1 +60° C	
Nodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type igital Protocol IPS ccuracy specs are for long-term tracking (S TFF (Time To First Fix) Cold Start	< 2 minutes	+/- 5.0 kHz @ -40 dB @ 21 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -70 dB @ 12 -70 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz 11 25 kHz 12 kHz 12.5 kHz Data Qnl 12.5 kHz Data & Vo AMBE+2 ETSI-TS102	25 kHz 5 kHz 6 KHz 1 GHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E 0F3E y: 7K60FXD ice: 7K60FXE 17M 361-1	Operating Temperature Storage Temperature	-40 dB @ 1 -45 dB @ -36 dB m -30 dBm > -60 dB @ 1 -70 dB @ +1,-3 3% 12.5 kHz; 16 12.5 kHz; 12 12.5 kHz; 12 12	2.5 kHz 25 kHz 25 kHz 3 1 GHz 3.5 kHz 25 kHz 25 kHz dB 30 11 K0F3E 3K0F3E 11 K0F3E 3K0F3E 11 K0F3E 3K0F3E 4 2 361-1 +60° C / +85° C	
fodulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type igital Protocol IPS ccuracy specs are for long-term tracking (S TFF (Time To First Fix) Cold Start TFF (Time To First Fix) Cold Start	< 2 minutes < 10 seconds	+/- 5.0 kHz @ -40 dB @ 21 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -70 dB @ 12 -70 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz 11 25 kHz 12 kHz 12.5 kHz Data Qnl 12.5 kHz Data & Vo AMBE+2 ETSI-TS102	25 kHz 5 kHz 6 KHz 1 GHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E 0F3E y: 7K60FXD ice: 7K60FXE 17M 361-1	Operating Temperature Storage Temperature Thermal Shock	-40 dB @ 1 -45 dB @ -36 dBm < -30 dBm > -60 dB @ 1 -70 dB @ 1 -70 dB @ 12.5 kHz 216 12.5 kHz 216 12.5 kHz Data Q 12.5 kHz Data Q 12.5 kHz Data Q 12.5 kHz Data Q -30° C / -30° C / -40°	2.5 kHz 25 kHz 25 kHz 1 GHz 2.5 kHz 25 kHz 25 kHz dB 0 11K0F3E 5K0F3E mly: 7K60FXD 6/oice: 7K60FXD 2 361-1 - +60° C / +85° C STD	
todulation Limiting M Hum and Noise onducted / Radiated Emission djacent Channel Power udio Response udio Distortion M Modulation FSK Digital Modulation igital Vocoder Type igital Protocol PS ccuracy specs are for long-term tracking (S TFF (Time To First Fix) Cold Start	< 2 minutes	+/- 5.0 kHz @ -40 dB @ 21 -45 dB @ 21 -36 dBm < ' -30 dBm < ' -70 dB @ 12 -70 dB @ 12 -70 dB @ 21 +1, -3 d 3% 12.5 kHz 11 25 kHz 12 kHz 12.5 kHz Data Qnl 12.5 kHz Data & Vo AMBE+2 ETSI-TS102	25 kHz 5 kHz 6 KHz 1 GHz 1 GHz 5 kHz 5 kHz 5 kHz 8 K0F3E 0F3E 0F3E y: 7K60FXD ice: 7K60FXE 17M 361-1	Operating Temperature Storage Temperature	-40 dB @ 1 -45 dB @ -36 dB m -30 dBm > -60 dB @ 1 -70 dB @ +1,-3 3% 12.5 kHz; 16 12.5 kHz; 12 12.5 kHz; 12 12	2.5 kHz 25 kHz 25 kHz 1 GHz 2.5 kHz 25 kHz 25 kHz dB 3 11K0F3E 5 5 5 5 5 5 5 5 5 5 5 5 5	

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



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