



THE FUTURE OF BUSINESS COMMUNICATION, DELIVERED TODAY

# MOTOTRBO™ DIGITAL TWO-WAY RADIO SYSTEM

Make technology more productive and personal. You asked for a forward-thinking way to connect your people to their work, wherever they go. An innovative business tool that increases their efficiency while lowering your costs. Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. It integrates voice and data seamlessly, offers enhanced features that are easy to use and delivers increased capacity to meet your communication needs from the field to the factory floor. With exceptional voice quality and long battery life, MOTOTRBO keeps your work teams connected when communication is a must.

Because MOTOTRBO uses TDMA digital technology, it delivers integrated voice and data, twice the calling capacity plus clearer voice communications. When it comes to battery performance, MOTOTRBO radios operate 40 percent longer between recharges compared to analog. In fact, the leading-edge IMPRES™ technology in our batteries, chargers and audio accessories also ensures longer talk time and clearer audio.

Motorola's Application Developer Program offers customized data applications so you can adapt your radios to your unique business needs. Because we've created the largest developer program in the industry, we can provide nimble applications that address your challenges and answer your objectives – from work order ticket management to network management, email gateways to location tracking, dispatch consoles to telephony integration, and beyond.

Whether you want to send text messages or track work order information, pinpoint work crew locations with integrated GPS or manage your fleet from a central dispatch location, MOTOTRBO™ paves the way – with customizable data applications on one convenient device.

MOTOTRBO offers added functionality, including dispatch capability with the MIP 5000 VoIP console, enhanced call signaling, basic and enhanced privacy-scrambling,



Display Mobile Radios



**XRC 9000**  
Trunking Controller

**XPR 6550 / XPR 6580**  
Display Portable Radios



**XPR 6350 / XPR 6380**  
Non-Display Portable Radios

Repeaters



**XPR 4350 / XPR 4380**  
Numeric Display Mobile Radios



**MTR3000**  
Base Station/Repeater

option board expandability and compatibility with SCADA solutions for utility and public service monitoring and alarms. Plus digital telephone interconnect capability to enable communication between radios and landline or mobile phones as well as a transmit interrupt suite – with voice interrupt, emergency voice interrupt or data over voice interrupt – to prioritize critical communication the moment you need it.

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. That’s why you need the proven performance of MOTOTRBO radio systems for non-stop communication no matter the size of your work force, no matter where they go.

MOTOTRBO’s IP Site Connect dramatically improves customer service and productivity by using the Internet to extend coverage to users anywhere in the world. Our scalable, single-site Capacity Plus solution expands capacity to over 1,000 users without adding new frequencies. Connect Plus multi-site digital trunking enables you to accommodate the high volume, wide area communication your business requires. Whether you need coverage at a single site or across multiple sites, MOTOTRBO can be scaled to meet your needs.

Keeping operations running smoothly during a change in communication systems is vital to your business. It’s easy to migrate to digital with MOTOTRBO because radios operate in analog and digital mode while 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 you can begin migrating to digital at your own pace. MOTOTRBO meets the most demanding specs, including IP57 for water submersibility (portables) and U.S. Military 810 C, D, E and F. It’s “intrinsically safe” when purchased and equipped with an FM/CSA battery, for use where flammable gas, vapors or combustible dust may be present. And backed by a two-year Standard Warranty, one-year Repair Service Advantage (US)/Extended Warranty (Canada) and minimum 1-year warranty for accessories.

**PRODUCT SPEC SHEET**

**MOTOTRBO™ XPR™ 6550/XPR 6350 PORTABLE RADIOS**

**GENERAL SPECIFICATIONS**

	DISPLAY XPR 6550			NON-DISPLAY XPR 6350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Channel Capacity		Up to 1,000			32	
Frequency	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz
Dimensions		5.18 in H x 2.5 in W x 1.39 in L (131.5 mm H x 63.5 mm W x 35.2 mm L)			5.18 in H x 2.5 in W x 1.39 in L (131.5 mm H x 63.5 mm W x 35.2 mm L)	
Weight (with IMPRES Li-Ion 1500 mAh Battery) (with IMPRES Li-Ion 1400 mAh FM Battery) (with IMPRES Li-Ion 2150 mAh Battery) (with NiMH 1300 mAh Battery)		12.7 oz (360 g) 13 oz (370 g) 13.17 oz (375 g) 15.2 oz (430 g)			11.63 oz (330 g) 11.98 oz (340 g) 12.12 oz (345 g) 14.09 oz (400 g)	
Power Supply		7.5 V nominal			7.5 V nominal	
FCC Description	AZ489FT3815	AZ489FT4876	AZ489FT4884	AZ489FT3815	AZ489FT4876	AZ489FT4884
IC Description	109U-89FT3815	109U-89FT4876	109U-89FT4884	109U-89FT3815	109U-89FT4876	109U-89FT4884
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.						
IMPRES Li-Ion 1500 mAh Battery		Analog: 9 hrs Digital: 13 hrs			Analog: 9 hrs Digital: 13 hrs	
IMPRES Li-Ion 1400 mAh Battery		Analog: 8.5 hrs Digital: 12 hrs			Analog: 8.5 hrs Digital: 12 hrs	
IMPRES Li-Ion 2150 mAh Battery		Analog: 13.5 hrs Digital: 19 hrs			Analog: 13.5 hrs Digital: 19 hrs	
NiMH 1300 mAh Battery		Analog: 8 hrs Digital: 11 hrs			Analog: 8 hrs Digital: 11 hrs	
<b>RECEIVER: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>				<b>GPS: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>		
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)		
Channel Spacing		12.5 kHz / 25 kHz*		TTFF (Time To First Fix) Cold Start	< 2 minutes	
Frequency Stability (-30° C, +60° C, +25° C)		+/- 0.5 ppm		TTFF (Time To First Fix) Hot Start	< 10 seconds	
Analog Sensitivity (12dB SINAD)		0.35 uV 0.22 uV (typical)		Horizontal Accuracy	< 10 meters	
Digital Sensitivity		5% BER: 0.3 uV		<b>MILITARY STANDARDS: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>		
Intermodulation (TIA603C)		70 dB			<b>810E</b>	<b>810F</b>
Adjacent Channel Selectivity				Applicable MIL-STD	Methods	Procedures
TIA603		60 dB @ 12.5 kHz, 70 dB @25 kHz*		Low Pressure	500.3	II
TIA603C		45 dB @ 12.5 kHz, 70 dB @25 kHz*		High Temperature	501.3	I/A, II/A1
Spurious Rejection (TIA603C)		70 dB		Low Temperature	502.3	I/C3, II/C1
Rated Audio		500 mW		Temperature Shock	503.3	I/A, 1C3
Audio Distortion @ Rated Audio		3% (typical)		Solar Radiation	505.3	I
Hum and Noise		-40 dB @ 12.5 kHz -45 dB @ 25 kHz*		Rain	506.3	I, II
Audio Response		TIA603C		Humidity	507.3	II
Conducted Spurious Emission (TIA603C)		-57 dBm		Salt Fog	509.3	I
				Dust	510.3	I
				Vibration	514.4	I/10, II/3
				Shock	516.4	I, IV
<b>TRANSMITTER: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>				<b>ENVIRONMENTAL SPECIFICATIONS: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>		
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	Operating Temperature	-30° C / +60° C	
Channel Spacing		12.5 kHz / 25 kHz*		Storage Temperature	-40° C / +85° C	
Frequency Stability (-30° C, +60° C, +25° C Ref.)		+/- 0.5 ppm		Thermal Shock	Per MIL-STD	
Low Power Output	1 W	1 W		Humidity	Per MIL-STD	
High Power Output	5 W	4 W		ESD	IEC-801-2KV	
Modulation Limiting		+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz*		Dust and Water Intrusion	IEC 60529 - IP57	
FM Hum and Noise		-40 dB @ 12.5 kHz -45 dB @ 25 kHz*		Packaging Test	MIL-STD 810D and E	
Conducted / Radiated Emission		-36 dBm < 1 GHz -30 dBm > 1 GHz		Testing completed using portable radio with attached battery and antenna.		
Adjacent Channel Power		60 dB @ 12.5 kHz 70 dB @ 25 kHz*		<b>FACTORY MUTUAL APPROVALS: DISPLAY XPR 6550 &amp; NON-DISPLAY XPR 6350</b>		
Audio Response		TIA603C		MOTOTRBO XPR Series portable radios have been certified by FM and CSA Approvals in accordance with Canada and 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.		
Audio Distortion		3%				
FM Modulation		12.5 kHz: 11K0F3E 25 kHz*: 16K0F3E				
4FSK Digital Modulation		12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE				
Digital Vocoder Type		AMBE +2™				
Digital Protocol		ETSI TS 102 361-1, -2, -3				



\*25 kHz will not be available on new equipment in the U.S. after 1/1/2013.  
 \*\*Radio only. Li-Ion battery -10° C; NiMH battery -20° C.  
 Specifications subject to change without notice. All specifications shown are typical.  
 Radio meets applicable regulatory requirements. Version 10 07/10

# PRODUCT SPEC SHEET

## MOTOTRBO™ XPR™ 6580/XPR 6380 PORTABLE RADIOS



### GENERAL SPECIFICATIONS

	DISPLAY XPR 6580	NON-DISPLAY XPR 6380	MILITARY STANDARDS				
				810E		810F	
				Methods	Procedures	Methods	Procedures
Channel Capacity	Up to 1000	Up to 32	Applicable MIL-STD				
Frequency Band	800 and 900 MHz	800 and 900 MHz	Low Pressure	500.3	II	500.4	II
Dimensions (HxWxL) with Li-Ion Battery	5.18 in H x 2.5 in W x 1.39 in L (131.5 mm H x 63.5 mm W x 35.2 mm L)	5.18 in H x 2.5 in W x 1.39 in L (131.5 mm H x 63.5 mm W x 35.2 mm L)	High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Weight with IMPRES Li-Ion 2150 mAh Battery	13.17 oz (375 g)	12.12 oz (345 g)	Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Power Supply	7.5 V nominal	7.5 V nominal	Temperature Shock	503.3	I/A, 1C3	503.4	I
FCC Description	ABZ99FT5011	ABZ99FT5011	Solar Radiation	505.3	I	505.4	I
IC Description	109AB-99FT5011	109AB-99FT5011	Rain	506.3	I, II	506.4	I, III
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.			Humidity	507.3	II	507.4	-
IMPRES Li-Ion 2150 mAh Battery	Analog: 13 hrs Digital: 17 hrs	Analog: 13 hrs Digital: 17 hrs	Salt Fog	509.3	I	509.4	I
IMPRES Li-Ion 1400 mAh Battery	Analog: 9 hrs Digital: 12 hrs	Analog: 9 hrs Digital: 12 hrs	Dust	510.3	I	510.4	I

### RECEIVER

Frequencies	800 MHz: 854-866 MHz and 869-870 MHz 900 MHz: 935-941 MHz	Vibration	514.4	I/10, II/3	514.5	I/24
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz	Shock	516.4	I, IV	516.5	I, IV
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm	<b>ENVIRONMENTAL SPECIFICATIONS</b>				
Analog Sensitivity (12 dB SINAD) Typical	0.25 uV	Operating Temperature	-30° C / +60° C			
Digital Sensitivity	5% BER: 0.3 uV	Operating Temperature (w/ IMPRES Li-Ion battery)	-10° C to +60° C			
Intermodulation (TIA603C)	70 dB	Storage Temperature	-40° C to +85° C			
Adjacent Channel Selectivity (TIA603) - 1T	60 dB @ 12.5 kHz 70 dB @ 25 kHz	Thermal Shock	Per MIL-STD			
Adjacent Channel Selectivity (TIA603C) - 2T	45 dB @ 12.5 kHz 70 dB @ 25 kHz	Humidity	Per MIL-STD			
Spurious Rejection (TIA603C)	70 dB	ESD	IEC-801-2KV			
Rated Audio	5 W	Dust and Water Intrusion	IEC 60529 - IP54			
Audio Distortion @ Rated Audio	3% (typical)	Packaging Test	MIL-STD 810D and E			
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz	Testing completed using portable radio with attached battery and antenna.				
Audio Response	TIA603C	<b>FACTORY MUTUAL APPROVALS</b>				
Conducted Spurious Emission (ETSI)	-57 dBm	MOTOTRBO XPR Series portable radios have been certified by FM and CSA Approvals in accordance with Canada and 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.				

### TRANSMITTER

Frequencies	800 MHz: 809-821 MHz, 824-825 MHz, 854-866 MHz and 869-870 MHz 900 MHz: 896-902 MHz and 935-941 MHz	 				
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz	<b>ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 6580 / XPR 6380</b>				
Frequency Stability (-30° C, +60° C)	+/- 0.5 ppm	<b>Band</b>	<b>Receive</b>	<b>Transmit</b>		
Low Power Output	1 W	800 MHz	851.0125	806.0125	851.0125	
High Power Output	2.5 W		851.5125	806.5125	851.5125	
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz		852.0125	807.0125	852.0125	
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz		852.5125	807.5125	852.5125	
Conducted / Rated Emission (ETSI)	-36 dBm < 1 GHz -30 dBm > 1 GHz		853.0125	808.0125	853.0125	
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 25 kHz		854.000 - 865.9875	809.000 - 820.9875	854.000 - 865.9875	
Audio Response	TIA603C		866.0125	821.0125	866.0125	
Audio Distortion (per EIA)	3%		866.5125	821.5125	866.5125	
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E		867.0125	822.0125	867.0125	
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE		867.5125	822.5125	867.5125	
Digital Vocoder Type	AMBE +2™		868.0125	823.0125	868.0125	
Digital Protocol	ETSI TS 102 361-1, -2, -3		869.000 - 870.000	824.000 - 825.000	869.000 - 870.000	
			900 MHz	935.000 - 941.000	896.000 - 902.000	935.000 - 941.000

### GPS

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)	
TTF (Time To First Fix) Cold Start	< 2 minutes
TTF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

Specifications subject to change without notice. All specifications shown are typical.  
Radio meets applicable regulatory requirements. Version 2 07/10

**GENERAL SPECIFICATIONS**

	DISPLAY XPR 4550			NUMERIC DISPLAY XPR 4350		
	VHF	UHF Band I	UHF Band II	VHF	UHF Band I	UHF Band II
Channel Capacity	Up to 1,000			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	25-45 W	25-40 W	1-40 W
Frequency	136-174 MHz	403-470 MHz	450-512 MHz	136-174 MHz	403-470 MHz	450-512 MHz
Dimensions	2.01 in H x 6.89 in W x 8.11 in L (51 mm H x 175 mm W x 206 mm L)			2.01 in H x 6.89 in W x 8.11 in L (51 mm H x 175 mm W x 206 mm L)		
Weight	4.0 lbs (1.8 kg)			4.0 lbs (1.8 kg)		
Current Drain:						
Standby	0.81 A max	0.81 A max	0.81 A max	0.81 A max	0.81 A max	0.81 A max
Rx @ Rated Audio	2 A max	2 A max	2 A max	2 A max	2 A max	2 A max
Transmit	1-25 W: 11.0 A max 25-45 W: 14.5 A max	1-25 W: 11.0 A max 25-40 W: 14.5 A max	1-40 W: 14.5 A max (11.0 A max < 25 W)	1-25 W: 11.0 A max 25-45 W: 14.5 A max	1-25 W: 11.0 A max 25-40 W: 14.5 A max	1-40 W: 14.5 A max (11.0 A max < 25 W)
FCC Description	1-25 W: ABZ99FT3083 25-45 W: ABZ99FT3082	1-25 W: ABZ99FT4081 25-40 W: ABZ99FT4080	1-40 W: ABZ99FT4083	1-25 W: ABZ99FT3083 25-45 W: ABZ99FT3082	1-25 W: ABZ99FT4081 25-40 W: ABZ99FT4080	1-40 W: ABZ99FT4083
IC Description	1-25 W: 109AB-99FT3083 25-45 W: 109AB-99FT3082	1-25 W: 109AB-99FT4081 25-40 W: 109AB-99FT4080	1-40 W: 109AB-99FT40830	1-25 W: 109AB-99FT3083 25-45 W: 109AB-99FT3082	1-25 W: 109AB-99FT4081 25-40 W: 109AB-99FT4080	1-40 W: 109AB-99FT4083

**RECEIVER: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350**

**GPS: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350**

Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)		
Channel Spacing	12.5 kHz / 25 kHz*			TTF (Time To First Fix) Cold Start	< 1 minute	
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm			TTF (Time To First Fix) Hot Start	< 10 seconds	
Analog Sensitivity (12dB SINAD)	0.3 uV 0.22 uV (typical)			Horizontal Accuracy	< 10 meters	
Digital Sensitivity	5% BER: 0.3 uV			<b>MILITARY STANDARDS: DISPLAY XPR 4550 &amp; NUMERIC DISPLAY XPR 4350</b>		
Intermodulation (TIA603C)	78 dB	75 dB		<b>810E</b>		<b>810F</b>
Adjacent Channel Selectivity				Applicable MIL-STD	Methods	Procedures
TIA603	65 dB @ 12.5 kHz, 80 dB @ 25 kHz*	65 dB @ 12.5 kHz, 75 dB @ 25 kHz*		Low Pressure	500.3	II
TIA603C	50 dB @ 12.5 kHz, 80 dB @ 25 kHz*	50 dB @ 12.5 kHz, 75 dB @ 25 kHz*		High Temperature	501.3	I/A, II/A1
Spurious Rejection (TIA603C)	80 dB	75 dB		Low Temperature	502.3	I/C3, II/C1
Rated Audio	3 W (Internal)			Temperature Shock	503.3	I/A1C3
	7.5 W (External - 8 ohms)			Solar Radiation	505.3	I
	13 W (External - 4 ohms)			Rain	506.3	I, II
Audio Distortion @ Rated Audio	3% (typical)			Humidity	507.3	II
Hum and Noise	-40 dB @ 12.5 kHz			Salt Fog	509.3	I
	-45 dB @ 25 kHz*			Dust	510.3	I
Audio Response	TIA603C			Vibration	514.4	I/10, II/3
Conducted Spurious Emission (TIA603C)	-57 dBm			Shock	516.4	I, IV

**TRANSMITTER: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350**

**ENVIRONMENTAL SPECIFICATIONS: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350**

Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	Operating Temperature	-30° C / +60° C
Channel Spacing	12.5 kHz / 25 kHz*			Storage Temperature	-40° C / +85° C
Frequency Stability (-30° C, +60° C, +25° C Ref.)	+/- 0.5 ppm			Thermal Shock	Per MIL-STD
Low Power Output	1-25 W	1-25 W	—	Humidity	Per MIL-STD
High Power Output	25-45 W	25-40 W	1-40 W	ESD	IEC-801-2KV
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz*			Dust and Water Intrusion	IEC 60529 - IP54
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz*			Packaging Test	MIL-STD 810D and E
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz				
Adjacent Channel Power	60 dB @ 12.5 kHz 70 dB @ 25 kHz*				
Audio Response	TIA603C				
Audio Distortion	3%				
FM Modulation	12.5 kHz: 11K0F3E 25 kHz*: 16K0F3E				
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE				
Digital Vocoder Type	AMBE +2™				
Digital Protocol	ETSI TS 102 361-1, -2, -3				

\*25 kHz will not be available on new equipment in the U.S. after 1/1/2013.  
Specifications subject to change without notice. All specifications shown are typical.  
Radio meets applicable regulatory requirements. Version 9 03/10

**PRODUCT SPEC SHEET**  
**MOTOTRBO™ XPR™ 4580/XPR 4380 MOBILE RADIOS**

Channel Capacity	Up to 1,000	Up to 32	Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)				
Typical RF Output	806-870 MHz 10-35 W 896-941 MHz* 10-30 W	806-870 MHz 10-35 W 896-941 MHz* 10-30 W	TTF (Time To First Fix) Cold Start	< 1 minute			
Frequency Band	800 and 900 MHz	800 and 900 MHz	TTF (Time To First Fix) Hot Start	< 10 seconds			
Dimensions	2.01 in H x 6.89 in W x 8.11 in L (51 mm H x 175 mm W x 206 mm L)	2.01 in H x 6.89 in W x 8.11 in L (51 mm H x 175 mm W x 206 mm L)	Horizontal Accuracy	< 10 meters			
Weight	4.0 lbs (1.8 kg)	4.0 lbs (1.8 kg)					
Current Drain:							
Standby	0.81 A max	0.81 A max	Applicable MIL-STD	Methods	Procedures	Methods	Procedures
Rx @ Rated Audio	2 A max	2 A max	Low Pressure	500.3	II	500.4	II
Transmit	12.0 A max	12.0 A max	High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Power Supply	12 V dc Negative Ground	12 V dc Negative Ground	Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
FCC Description	ABZ99FT5010	ABZ99FT5010	Temperature Shock	503.3	I/A1C3	503.4	I
IC Description	109AB-99FT5010	109AB-99FT5010	Solar Radiation	505.3	I	505.4	I
			Rain	506.3	I, II	506.4	I, III
Frequencies	800 MHz: 854-866 MHz and 869-870 MHz 900 MHz: 935-941 MHz		Humidity	507.3	II	507.4	—
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz		Salt Fog	509.3	I	509.4	I
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm		Dust	510.3	I	510.4	I
Analog Sensitivity (12dB SINAD)	0.22 uV		Vibration	514.4	I/10, II/3	514.5	I/24
Digital Sensitivity	5% BER: 0.28 uV		Shock	516.4	I, IV	516.5	I, IV
Intermodulation (TIA603C)	78 dB						
Adjacent Channel Selectivity TIA603 TIA603C	65 dB @ 12.5 kHz, 75 dB @ 25 kHz 50 dB @ 12.5 kHz, 75 dB @ 25 kHz		Operating Temperature	-30° C / +60° C			
Spurious Rejection (TIA603C)	75 dB		Storage Temperature	-40° C / +85° C			
Rated Audio	3 W (Internal)		Thermal Shock	Per MIL-STD			
Audio Distortion @ Rated Audio	3% (typical)		Humidity	Per MIL-STD			
Hum and Noise	-45 dB @ 12.5 kHz -45 dB @ 25 kHz		ESD	IEC-801-2KV			
Audio Response	TIA603C		Dust and Water Intrusion	IEC 60529 - IP54			
Conducted Spurious Emission (TIA603C)	-57 dBm		Packaging Test	MIL-STD 810D and E			
Frequencies	800 MHz: 809-821 MHz, 824-825 MHz, 854-866 MHz and 869-870 MHz 900 MHz: 896-902 MHz and 935-941 MHz						
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz		800 MHz	851.0125	806.0125	851.0125	
Frequency Stability (-30° C, +60° C, +25° C Ref.)	+/- 0.5 ppm			851.5125	806.5125	851.5125	
Low Power Output	10 W			852.0125	807.0125	852.0125	
High Power Output	800 MHz: 35W 900 MHz: 30W			852.5125	807.5125	852.5125	
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz			853.0125	808.0125	853.0125	
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz			854.000 - 865.9875	809.000 - 820.9875	854.000 - 865.9875	
Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz			866.0125	821.0125	866.0125	
Adjacent Channel Power	-50 dB @ 12.5 kHz -60 dB @ 25 kHz			866.5125	821.5125	866.5125	
Audio Response	TIA603C			867.0125	822.0125	867.0125	
Audio Distortion	3%			867.5125	822.5125	867.5125	
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E		868.0125	823.0125	868.0125		
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE		869.000 - 870.000	824.000 - 825.000	869.000 - 870.000		
Digital Vocoder Type	AMBE +2™		900 MHz	935.000 - 941.000	896.000 - 902.000	935.000 - 941.000	
Digital Protocol	ETSI TS 102 361-1, -2, -3						

\*For frequencies 901-902, 940-941 MHz, FCC Rule Part 24 limits power to 7W ERP. Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements. Version 1 03/10

MOTOTRBO™ XPR™ 8400 REPEATER

Channel Capacity	1		
Typical RF Output: Low Power High Power	1-25 W 25-45 W	1-25 W 25-40 W	— 1-40 W
Frequency	136-174 MHz	403-470 MHz	450-512 MHz
Dimensions	5.22 in H x 19 in W x 11.67 in L (132.6 mm H x 482.6 mm W x 296.5 mm L)		
Weight	31 lbs. (14 kg)		
Voltage Requirements	100-240 V AC (13.6 V DC)		
Current Drain During Standby: Low Power High Power	1 A (1 A DC typical) 1 A (1 A DC typical)		
Current Drain During Transmit: Low Power High Power	3 A (7.5 A DC typical) 4 A (12 A DC typical)		
Operating Temperature Range	-30°C to +60°C		
Max Duty Cycle	100%		
FCC Description	1-25 W: ABZ99FT3026 25-45 W: ABZ99FT3025	1-25 W: ABZ99FT4026 25-40 W: ABZ99FT4025	1-40 W: ABZ99FT4027
IC Description	1-25 W: 109AB-99FT3026 25-45 W: 109AB-99FT3025	1-25 W: 109AB-99FT4026 25-40 W: 109AB-99FT4025	1-40 W: 109AB-99FT4027

Frequencies	136-174 MHz	403-470 MHz	450-512 MHz
Channel Spacing	12.5 kHz / 25 kHz*		
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm		
Analog Sensitivity (12dB SINAD)	0.30 uV 0.22 uV (typical)		
Digital Sensitivity	5% BER: 0.3 uV		
Intermodulation (TIA603C)	78 dB	75 dB	
Adjacent Channel Selectivity: TIA603 TIA603C	65 dB @ 12.5 kHz, 80 dB @ 25 kHz* 50 dB @ 12.5 kHz, 80 dB @ 25 kHz*	65 dB @ 12.5 kHz, 75 dB @ 25 kHz* 50 dB @ 12.5 kHz, 75 dB @ 25 kHz*	
Spurious Rejection (TIA603C)	80 dB	75 dB	
Audio Distortion @ Rated Audio	3% (typical)		
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz*		
Audio Response	TIA603C		
Conducted Spurious Emission (TIA603C)	-57 dBm		

Frequencies	136-174 MHz	403-470 MHz	450-512 MHz
Channel Spacing	12.5 kHz / 25 kHz*		
Frequency Stability (-30° C, +60° C, +25° C Ref.)	+/- 0.5 ppm		
Low Power Output	1-25 W	1-25 W	—
High Power Output	25-45 W	25-40 W	1-40 W
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 -30 dBm > 1 GHz		
Adjacent Channel Power	60 dB @ 12.5 kHz 70 dB @ 25 kHz*		
Audio Response	TIA603C		
Audio Distortion	3%		
FM Modulation	12.5 kHz: 11K0F3E 25 kHz*: 16K0F3E		
4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE		
Digital Vocoder Type	AMBE +2™		
Digital Protocol	ETSI TS 102 361-1, -2, -3		

\*25 kHz will not be available on new equipment in the U.S. after 1/1/2013.  
Specifications subject to change without notice. All specifications shown are typical.  
Repeater meets applicable regulatory requirements. Version 1 01/11

MOTOTRBO™ XPR™ 8380 REPEATER

**GENERAL SPECIFICATIONS**

	<b>XPR 8380</b>	<b>TRANSMITTER</b>			
	<b>800/900 MHz</b>		<b>XPR 8380</b>		
Channel Capacity	1		<b>800/900 MHz</b>		
Typical RF Output	10–35 W (806-870 MHz)	Frequencies	851-870 MHz 935-941 MHz		
	10–30 W (896-941 MHz)	Channel Spacing	12.5 kHz / 25 kHz		
Frequency	806–941 MHz	Frequency Stability (-30° C, +60° C, +25° C Ref.)	+/- 0.1 ppm		
Dimensions	5.22 in H x 19 in W x 11.67 in L (132.6 mm H x 482.6 mm W x 296.5 mm L)	Power Output	10–35 W : 851-870 MHz / 10–30 W : 935-941 MHz		
Weight	31 lbs (14 kg)	Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz		
Voltage Requirements	100–240 V AC 47–63 Hz (13.6 V DC)	Digital Modulation Fidelity (4FSK)	FSK Error 5% FSK Magnitude 1%		
Current Drain During Standby	1.0 A (100 V AC) 0.5 A (240 V AC) 1.0 A (typical)(13.4 V DC)	FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz		
Current Drain During Transmit Low Power	3.0 A (100 V AC) 1.5 A (240 V AC) 10 A (typical)(13.4 V DC)	Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz		
Current Drain During Transmit High Power	4.0 A (100 V AC) 1.8 A (240 V AC) 12 A (typical)(13.4 V DC)	Adjacent Channel Power	-50 dB @ 12.5 kHz -60 dB @ 25 kHz		
Operating Temperature Range	-30°C to +60°C	Audio Response	TIA603C		
Max Duty Cycle	100%	Audio Distortion	3%		
FCC Description	10–35 W: AB299FT6001	FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E		
IC Description	10–35 W: 109AB-99FT6001	4FSK Digital Modulation	12.5 kHz Data Only: 7K60FXD 12.5 kHz Data & Voice: 7K60FXE		
<b>RECEIVER</b>		Digital Vocoder Type	AMBE +2™		
Frequencies	806-825 MHz 896-902 MHz	Digital Protocol	ETSI TS 102 361-1 ETSI TS 102 361-2 ETSI TS 102 361-3		
Channel Spacing	12.5 kHz / 25 kHz for 800 MHz 12.5 kHz only for 900 MHz	<b>ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 8380</b>			
Frequency Stability (-30° C, +60° C)	+/- 0.1 ppm	<b>Band</b>	<b>Receive</b>		<b>Transmit</b>
Analog Sensitivity (12dB SINAD)	0.22 uV (typical)	800 MHz	806.0125	821.0125	851.0125    866.0125
Digital Sensitivity	5% BER: 0.3 uV 0.22 uV (typical)		806.5125	821.5125	851.5125    866.5125
Intermodulation (TIA603C)	78 dB		807.0125	822.0125	852.0125    867.0125
Adjacent Channel Selectivity TIA603 TIA603C	65 dB @ 12.5 kHz, 75 dB @ 25 kHz 50 dB @ 12.5 kHz, 75 dB @ 25 kHz		807.5125	822.5125	852.5125    867.5125
Spurious Rejection (TIA603C)	75 dB		808.0125	823.0125	853.0125    868.0125
Audio Distortion @ Rated Audio	3% (typical)		809.000 - 820.9875	824.000 - 825.000	854.000 - 865.9875    869.000 - 870.000
Hum and Noise	-45 dB @ 12.5 kHz -45 dB @ 25 kHz	900 MHz	896.000 - 902.000*		935.000 - 941.000*
Audio Response	TIA603C				
Conducted Spurious Emission (TIA603C)	-57 dBm				

Specifications subject to change without notice. All specifications shown are typical.  
Repeater meets applicable regulatory requirements. Version 2 07/10



MTR3000 BASE STATION/REPEATER UHF SPECIFICATIONS

Number of Frequencies	Up to 16	
Modulation	FM & 4FSK	
Frequency Generation	Synthesized	
Channel Spacing Analog / Digital	12.5 kHz, 25 kHz / 12.5 kHz (6.25e compliant)	
Mode of Operation	Simplex / Semi-Duplex / Duplex	
Temperature Range	-30°C to +60°C	
Antenna Connectors	Transmit and Receive, Type "N" Female	
AC Operation	85-264 VAC, 47-63 Hz	
DC Operation	28.6 VDC (25.7-30.7 VDC full rated output power)	
Dimensions	5.25 in H x 19 in W x 16.5 in L 133 mm H x 483 mm W x 419 mm L	
Weight	40 lbs (19 kg)	

100 W Standby	0.4A / 0.4A	0.8A
100 W Transmit	3.3A / 1.8A	11.5A

Frequencies	403-470, 450-524 MHz	403-470 MHz
Selectivity (TIA603) 25 kHz / 12.5 kHz	80 dB (86 dB typical) / 75 dB (78 dB typical)	
Selectivity (TIA603D) 25 kHz / 12.5 kHz	75 dB (85 dB typical) / 45 dB (60 dB typical)	
Analog Sensitivity 12dB SINAD	0.30 uV (0.22 uV typical)	
Digital Sensitivity 5% BER	0.30 uV (0.20 uV typical)	
Signal Displacement Bandwidth 25 kHz / 12.5 kHz	2 kHz / 1 kHz	
Intermodulation Rejection 25 kHz and 12.5 kHz	85 dB	
Spurious and Image Response Rejection	85 dB (typical 95 dB)	
Audio Response	+1,-3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1.5% typical) at 1000 Hz, 60% RSD	
Line Output	330 mV (RMS) @ 60% RSD	
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB nominal / 45 dB nominal	
RF Input Impedance	50 Ohms	

Frequencies	403-470, 470-524 MHz	403-435, 435-470 MHz
Power Output (Continuous Duty)	8-100 watts	2-30/40 watts; 25-100 watts
Electronic Bandwidth	Full Band	
Output Impedance	50 Ohms	
Intermodulation Attenuation	55 dB	40 dB for 40W and 100W stations; 70 dB for 30W station
Maximum Deviation (RSD) 25 kHz / 12.5 kHz	±5 kHz / ±2.5 kHz	
Audio Sensitivity	60% RSD @ 80 mV RMS	
Spurious and Harmonic Emissions Attenuation	90 dB	85 dB
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB nominal, 45 dB nominal	
Frequency Stability (for temperature and aging variation)	1.5 PPM/External Ref (optional)	
Audio Response	+1,-3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1% typical) at 1000 Hz; 60% RSD	
Emission Designators	FM Modulation: 12.5 kHz: 11K0F3E; 25 kHz: 16K0F3E 4FSK Modulation: 12.5 kHz - Data Only: 7K60FXD; 12.5 kHz - Data & Voice: 7K60FXE	

406.1 - 470	T3000A	Transmitter	8-100	ABZ89FC4823
403 - 470	T3000A	Receiver	N/A	ABZ89FR4824
470 - 512	T3000A	Transmitter	8-100	ABZ89FC4825
450 - 512	T3000A	Receiver	N/A	ABZ89FR4826
406.1 - 470	T2003A	Transmitter	25 - 100	ABZ89FC4827
406.1 - 470	T2003A	Transmitter	2 - 30/40	ABZ89FC4829
403 - 470	T2003A	Receiver	N/A	ABZ89FR4828

Industry Canada Approval: IC ID 109AB-T3000; IC model T3000-UHFR1  
 Specifications per TIA/EIA 603D unless otherwise noted  
 Product meets ETSI 300-086 & ETSI 300-113  
 CE Marked; RoHS compliant; UL Listed  
 Digital Protocol ETSI 102 361-1, -2, -3; AMBE +2™ Vocoder  
 25 kHz will not be available on new equipment in the U.S. after 1/1/2013.  
 Specifications subject to change without notice. Version 3 12/10

**PRODUCT SPEC SHEET**

**MTR3000 BASE STATION/REPEATER VHF SPECIFICATIONS**

Number of Frequencies	Up to 16	
Modulation	FM & 4FSK	
Frequency Generation	Synthesized	
Channel Spacing Analog / Digital	12.5 kHz, 25 kHz / 12.5 kHz (6.25e compliant)	
Mode of Operation	Simplex / Semi-Duplex / Duplex	
Temperature Range	-30°C to +60°C	
Antenna Connectors	Transmit and Receive, Type "N" Female	
AC Operation	85-264 VAC, 47-63 Hz	
DC Operation	28.6 VDC (25.7-30.7 VDC full rated output power)	
Dimensions	5.25 in H x 19 in W x 16.5 in L 133 mm H x 483 mm W x 419 mm L	
Weight	40 lbs (19 kg)	

100 W Standby	0.4A / 0.4A	0.8A
100 W Transmit	3.5A/ 1.9A	12.2A

Frequency	136-174 MHz	
Selectivity (TIA603) 25 kHz / 12.5 kHz	80 dB (90 dB typical) / 75 dB (82 dB typical)	
Selectivity (TIA603D) 25 kHz / 12.5 kHz	80 dB (90 dB typical) / 50 dB (60 dB typical)	
Analog Sensitivity 12dB SINAD	0.30 uV (0.22 uV typical)	
Digital Sensitivity 5% BER	0.30 uV (0.20 uV typical)	
Signal Displacement Bandwidth 25 kHz / 12.5 kHz	2 kHz / 1 kHz	
Intermodulation Rejection 25 kHz and 12.5 kHz	85 dB	
Spurious and Image Response Rejection	85 dB (95 dB typical)	
Audio Response	+1,-3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1% typical) at 1000 Hz; 60% RSD	
Line Output	330 mV (RMS) @ 60% RSD	
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB (56 dB typical) / 45 dB (52 dB typical)	
RF Input Impedance	50 Ohms	

Frequencies	136-174 MHz	136-154, 150-174 MHz
Power Output (Continuous Duty)	8-100 watts	1-30/40 watts, 25-100 watts
Electronic Bandwidth	Full Band	
Output Impedance	50 Ohms	
Intermodulation Attenuation	55 dB	40 dB for 40W and 100W stations; 70 dB for 30W station
Maximum Deviation (RSD) 25 kHz / 12.5 kHz	±5 kHz / ±2.5 kHz	
Audio Sensitivity	60% RSD @ 80 mV RMS	
Spurious and Harmonic Emissions Attenuation	90 dB	85 dB
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB (55 dB typical) / 45 dB (52 dB typical)	
Frequency Stability (for temperature and aging variation)	1.5 PPM/External Ref (optional)	
Audio Response	+1,-3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1% typical) at 1000 Hz; 60% RSD	
Emission Designators	FM Modulation: 12.5 kHz: 11K0F3E; 25 kHz: 16K0F3E 4FSK Modulation: 12.5 kHz - Data Only: 7K60FXD; 12.5 kHz - Data & Voice: 7K60FXE	

136-174	T3000A	Transmitter	8-100	ABZ89FC3793
136-174	T3000A	Receiver	N/A	ABZ89FR3794
136-174	T2003A	Transmitter	25-100	ABZ89FC3795
136-174	T2003A	Receiver	N/A	ABZ89FR3796
136-174	T2003A	Transmitter	1-30 / 40	ABZ89FC3797

Industry Canada Approval: IC ID 109AB-3793; IC model T3000-VHF  
 Specifications per TIA/EIA 603D unless otherwise noted  
 Product meets ETSI 300-086 & ETSI 300-113  
 CE Pending; RoHS compliant; UL Listed  
 Digital Protocol ETSI 102 361-1, -2, -3; AMBE +2™ Vocoder  
 25 kHz will not be available on new equipment in the U.S. after 1/1/2013.  
 Specifications subject to change without notice. Version 3 12/10

**PRODUCT SPEC SHEET**

**MTR3000 BASE STATION/REPEATER 800/900 MHZ SPECIFICATIONS**

**GENERAL SPECIFICATIONS**

	<b>T3000A - MTR3000</b>	<b>T2003A - UPGRADE KIT FOR MTR2000 STATIONS</b>
Number of Frequencies		Up to 16
Modulation		FM & 4FSK
Frequency Generation		Synthesized
Channel Spacing Analog / Digital		12.5 kHz, 25 kHz / 12.5 kHz (6.25e compliant)
Mode of Operation		Semi-Duplex / Duplex
Temperature Range		-30°C to +60°C
Antenna Connectors		Transmit and Receive, Type "N" Female
AC Operation		85-264 VAC, 47-63 Hz
DC Operation		28.6 VDC (24.7 - 30.7 VDC full rated output power)
Dimensions		5.25 in H x 19 in W x 16.5 in L 133 mm H x 483 mm W x 419 mm L
Weight		40 lbs (19 kg)

**800/900 MHZ INPUT CURRENT (T3000A)**

	<b>AC Line 117 Volts / 220 Volts</b>	<b>28 VDC D/C Battery Revert, Neg. Gnd.</b>
100 W Standby	0.4A / 0.4A	0.8A
100 W Transmit	3.4A/ 1.9A	12.0A

**RECEIVER (800/900 MHz)**

	<b>806 - 825 &amp; 896 - 902 MHz</b>	<b>806 - 825, 896 - 902 MHz</b>
Frequencies	806 - 825 & 896 - 902 MHz	806 - 825, 896 - 902 MHz
Selectivity (TIA603): 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		85 dB , 75 dB / 75 dB
Selectivity (TIA603D): 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		80 dB (87 dB typical), 55 dB (62 dB typical) / 55 dB (62 dB typical)
Analog Sensitivity 12dB SINAD		0.28 uV ( 0.21 uV typical)
Digital Sensitivity 5% BER		0.28 uV
Signal Displacement Bandwidth: 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		2 kHz, 1 kHz / 1 kHz
Intermodulation Rejection: 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		90 dB
Spurious and Image Response Rejection		85 dB (typical 95 dB)
Audio Response		+1, -3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output
Audio Distortion		Less than 3% (1.5% typical) at 1000 Hz, 60% RSD
Line Output		330 mV (RMS) @ 60% RSD
FM Hum and Noise (750 µs de-emphasis): 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		50 dB nominal, 45 dB nominal / 45 dB nominal
RF Input Impedance		50 Ohms

**TRANSMITTER (800/900 MHz)**

	<b>851 - 870 &amp; 935 - 941 MHz</b>	<b>851 - 870, 935 - 941 MHz</b>
Frequencies	851 - 870 & 935 - 941 MHz	851 - 870, 935 - 941 MHz
Power Output (Continuous Duty)	8-100 watts	20-75 watts
Electronic Bandwidth		Full Band
Output Impedance		50 Ohms
Intermodulation Attenuation	55 dB	50 dB
Maximum Deviation (RSD) 25 kHz / 12.5 kHz		±5 kHz, ±2.5 kHz / ±2.5 kHz
Audio Sensitivity		60% RSD @ 80 mV RMS
Spurious and Harmonic Emissions Attenuation 800 MHz / 900 MHz	90 dB / 86 dB	80 dB / 80 dB
FM Hum and Noise (750 µs de-emphasis): 800MHz: 25 kHz, 12.5 kHz / 900 MHz: 12.5 kHz		50 dB nominal, 45 dB nominal / 45 dB nominal
Frequency Stability (for temperature and aging variation)		0.1PPM/ External Ref (optional)
Audio Response		+1, -3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line output
Audio Distortion		Less than 3% (1% typical) at 1000 Hz; 60% RSD
Emission Designators		FM Modulation: 800 MHz: 12.5 kHz: 11K0F3E; 25 kHz: 16K0F3E 900 MHz: 12.5 kHz: 11K0F3E 4FSK Modulation: 12.5 kHz - Data Only: 7K60FXD; 12.5 kHz - Data & Voice: 7K60FXE

**FCC TYPE ACCEPTANCE**

<b>Frequency Range in MHz</b>	<b>Model</b>	<b>Type</b>	<b>Power Output in Watts</b>	<b>US Type Acceptance Number</b>
851 - 870 & 935- 941	T3000A	Transmitter	8-100	ABZ89FC5817
806 - 825 & 896 - 902	T3000A	Receiver	N/A	ABZ89FR5818
851 - 870	T2003A	Transmitter	20-75	ABZ89FC5819
806 - 825	T2003A	Receiver	N/A	ABZ89FR5820
935 - 941	T2003A	Transmitter	20-75	ABZ89FC5821
896 - 902	T2003A	Receiver	N/A	ABZ89FR5822

Industry Canada Approval: IC ID 109AB-5817; IC Model T3000-8/900  
 Specifications per TIA/EIA 603D unless otherwise noted  
 Product meets ETSI 300-086 & ETSI 300-113  
 RoHS compliant; UL Listed  
 Digital Protocol ETSI 102 361-1, -2, -3; AMBE +2™ Vocoder  
 Specifications subject to change without notice. Version 3 12/10

## XRC 9000 TRUNKING CONTROLLER

Specifications subject to change without notice. All specifications shown are typical.  
Controller meets applicable regulatory requirements. Version 1 09/10

### **Magnum Electronics, Inc**

927 Horsepond Road  
Dover, DE 19901  
302-734-9250  
302-734-1056 Fax  
main@magnumelectronics.com  
**www.magnumelectronics.com**



For more information on how to make your business more efficient and better connected, visit [www.motorola.com/mototrbo](http://www.motorola.com/mototrbo).

Motorola Solutions, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners.

© 2011 Motorola Solutions, Inc. All rights reserved.

R3-7-2012B

