



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.

HIGH-POWERED PERFORMANCE

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.

INDUSTRY-LEADING APPLICATIONS

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.

PRODUCT SPEC SHEET

MOTOTRBO DIGITAL TWO-WAY RADIO SYSTEM



XPR™ 4550 / XPR 4580
Display Mobile Radios



XPR 6550 / XPR 6580
Display Portable Radios

XRC 9000
Trunking Controller



XPR 6350 / XPR 6380
Non-Display Portable Radios



XPR 8380 / XPR 8400
Repeaters



XPR 4350 / XPR 4380
Numeric Display Mobile Radios

MTR3000
Base Station/Repeater



ADDED FUNCTIONALITY

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

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. 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.

MIGRATE AT YOUR OWN PACE

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.

RELIABLE DURABILITY

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 FM 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	
RECEIVER: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350				GPS: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350		
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		MILITARY STANDARDS: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350		
Intermodulation (TIA603C)		70 dB			810E	
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
				ENVIRONMENTAL SPECIFICATIONS: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350		
TRANSMITTER: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350				Operating Temperature	-30° C / +60° C	
Frequencies	136-174 MHz	403-470 MHz	450-512 MHz	Storage Temperature	-40° C / +85° C	
Channel Spacing		12.5 kHz / 25 kHz*		Thermal Shock	Per MIL-STD	
Frequency Stability (-30° C, +60° C, +25° C Ref.)		+/- 0.5 ppm		Humidity	Per MIL-STD	
Low Power Output	1 W	1 W		ESD	IEC-801-2KV	
High Power Output	5 W	4 W		Dust and Water Intrusion	IEC 60529 - IP57	
Modulation Limiting		+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz*		Packaging Test	MIL-STD 810D and E	
FM Hum and Noise		-40 dB @ 12.5 kHz -45 dB @ 25 kHz*		Testing completed using portable radio with attached battery and antenna.		
Conducted / Radiated Emission		-36 dBm < 1 GHz -30 dBm > 1 GHz		FACTORY MUTUAL APPROVALS: DISPLAY XPR 6550 & NON-DISPLAY XPR 6350		
Adjacent Channel Power		60 dB @ 12.5 kHz 70 dB @ 25 kHz*		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 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.

**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				
Channel Capacity	Up to 1000	Up to 32		810E		810F	
Frequency Band	800 and 900 MHz	800 and 900 MHz	Applicable MIL-STD	Methods	Procedures	Methods	Procedures
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)	Low Pressure	500.3	II	500.4	II
Weight with IMPRES Li-Ion 2150 mAh Battery	13.17 oz (375 g)	12.12 oz (345 g)	High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Power Supply	7.5 V nominal	7.5 V nominal	Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
FCC Description	ABZ99FT5011	ABZ99FT5011	Temperature Shock	503.3	I/A, 1C3	503.4	I
IC Description	109AB-99FT5011	109AB-99FT5011	Solar Radiation	505.3	I	505.4	I
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.			Rain	506.3	I, II	506.4	I, III
IMPRES Li-Ion 2150 mAh Battery	Analog: 13 hrs Digital: 17 hrs	Analog: 13 hrs Digital: 17 hrs	Humidity	507.3	II	507.4	-
IMPRES Li-Ion 1400 mAh Battery	Analog: 9 hrs Digital: 12 hrs	Analog: 9 hrs Digital: 12 hrs	Salt Fog	509.3	I	509.4	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	ENVIRONMENTAL SPECIFICATIONS			
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	FACTORY MUTUAL APPROVALS			
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	ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 6580 / XPR 6380				
Frequency Stability (-30° C, +60° C)	+/- 0.5 ppm	Band	Receive	Transmit		
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

PRODUCT SPEC SHEET

MOTOTRBO™ XPR™ 4550/XPR 4350 MOBILE RADIOS

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

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*			TTFF (Time To First Fix) Cold Start	< 1 minute
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm			TTFF (Time To First Fix) Hot Start	< 10 seconds
Analog Sensitivity (12dB SINAD)	0.3 uV 0.22 uV (typical)			Horizontal Accuracy	< 10 meters
Digital Sensitivity	5% BER: 0.3 uV			MILITARY STANDARDS: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350	
Intermodulation (TIA603C)	78 dB	75 dB		810E	
Adjacent Channel Selectivity TIA603	65 dB @ 12.5 kHz, 80 dB @ 25 kHz*	65 dB @ 12.5 kHz, 75 dB @ 25 kHz*		Applicable MIL-STD	Methods Procedures
TIA603C	50 dB @ 12.5 kHz, 80 dB @ 25 kHz*	50 dB @ 12.5 kHz, 75 dB @ 25 kHz*		Low Pressure	500.3 II 500.4 II
Spurious Rejection (TIA603C)	80 dB	75 dB		High Temperature	501.3 I/A, II/A1 501.4 I/Hot, II/Hot
Rated Audio	3 W (Internal) 7.5 W (External - 8 ohms) 13 W (External - 4 ohms)			Low Temperature	502.3 I/C3, II/C1 502.4 I/C3, II/C1
				Temperature Shock	503.3 I/A1C3 503.4 I
				Solar Radiation	505.3 I 505.4 I
				Rain	506.3 I, II 506.4 I, III
Audio Distortion @ Rated Audio	3% (typical)			Humidity	507.3 II 507.4 —
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz*			Salt Fog	509.3 I 509.4 I
				Dust	510.3 I 510.4 I
Audio Response	TIA603C			Vibration	514.4 I/10, II/3 514.5 I/24
Conducted Spurious Emission (TIA603C)	-57 dBm			Shock	516.4 I, IV 516.5 I, IV

TRANSMITTER: DISPLAY XPR 4550 & NUMERIC DISPLAY XPR 4350

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

GENERAL SPECIFICATIONS

	DISPLAY XPR 4580	NUMERIC DISPLAY XPR 4380	GPS				
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)	MILITARY STANDARDS				
Current Drain: Standby	0.81 A max	0.81 A max	Applicable MIL-STD	810E		810F	
				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
RECEIVER			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	ENVIRONMENTAL SPECIFICATIONS				
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			
TRANSMITTER			ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 4580 / XPR 4380				
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	Band	Receive	Transmit		
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

PRODUCT SPEC SHEET
MOTOTRBO™ XPR™ 8400 REPEATER

GENERAL SPECIFICATIONS

	XPR 8400		
	VHF	UHF Band I	UHF Band II
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

RECEIVER

	136-174 MHz	403-470 MHz	450-512 MHz
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		

TRANSMITTER

	136-174 MHz	403-470 MHz	450-512 MHz
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

PRODUCT SPEC SHEET
MOTOTRBO™ XPR™ 8380 REPEATER

GENERAL SPECIFICATIONS

		XPR 8380	TRANSMITTER		
		800/900 MHz		XPR 8380	
Channel Capacity		1		800/900 MHz	
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: ABZ99FT6001	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	
			Digital Vocoder Type	AMBE +2™	
			Digital Protocol	ETSI TS 102 361-1 ETSI TS 102 361-2 ETSI TS 102 361-3	
RECEIVER			ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 8380		
Frequencies		806-825 MHz 896-902 MHz			
Channel Spacing		12.5 kHz / 25 kHz for 800 MHz 12.5 kHz only for 900 MHz			
Frequency Stability (-30° C, +60° C)		+/- 0.1 ppm	Band	Receive	Transmit
Analog Sensitivity (12dB SINAD)		0.22 uV (typical)	800 MHz	806.0125 806.5125	851.0125 851.5125 866.0125
Digital Sensitivity		5% BER: 0.3 uV 0.22 uV (typical)		807.0125 807.5125	821.5125 822.0125 822.5125 852.0125 852.5125 867.0125
Intermodulation (TIA603C)		78 dB		808.0125	823.0125 853.0125 868.0125
Adjacent Channel Selectivity TIA603		65 dB @ 12.5 kHz, 75 dB @ 25 kHz		809.000 - 820.9875	824.000 - 825.000 854.000 - 865.9875 869.000 - 870.000
Adjacent Channel Selectivity TIA603C		50 dB @ 12.5 kHz, 75 dB @ 25 kHz			
Spurious Rejection (TIA603C)		75 dB			
Audio Distortion @ Rated Audio		3% (typical)			
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

PRODUCT SPEC SHEET

MTR3000 BASE STATION/REPEATER UHF SPECIFICATIONS

GENERAL SPECIFICATIONS

	T3000A - MTR3000	T2003A - UPGRADE KIT FOR MTR2000 STATIONS
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)

UHF INPUT CURRENT (T3000A)

	AC Line 117 Volts / 220 Volts	28 VDC D/C Battery Revert, Neg. Gnd.
100 W Standby	0.4A / 0.4A	0.8A
100 W Transmit	3.3A/ 1.8A	11.5A

RECEIVER (UHF)

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

TRANSMITTER (UHF)

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

FCC TYPE ACCEPTANCE

Frequency Range in MHz	Model	Type	Power Output in Watts	US Type Acceptance Number
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

GENERAL SPECIFICATIONS

	T3000A - MTR3000	T2003A - UPGRADE KIT FOR MTR2000 STATIONS
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)

VHF INPUT CURRENT (T3000A)

	AC Line 117 Volts / 220 Volts	28 VDC D/C Battery Revert, Neg. Gnd.
100 W Standby	0.4A / 0.4A	0.8A
100 W Transmit	3.5A/ 1.9A	12.2A

RECEIVER (VHF)

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

TRANSMITTER (VHF)

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

FCC TYPE ACCEPTANCE

Frequency Range in MHz	Model	Type	Power Output in Watts	US Type Acceptance Number
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

	T3000A - MTR3000	T2003A - UPGRADE KIT FOR MTR2000 STATIONS
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)

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

RECEIVER (800/900 MHz)

	806 - 825 & 896 - 902 MHz	806 - 825, 896 - 902 MHz
Frequencies		
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)

	851 - 870 & 935 - 941 MHz	851 - 870, 935 - 941 MHz
Frequencies		
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

Frequency Range in MHz	Model	Type	Power Output in Watts	US Type Acceptance Number
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

PRODUCT SPEC SHEET
XRC 9000 TRUNKING CONTROLLER

GENERAL SPECIFICATIONS

Model	Single-Site Controller: TT2213A Multi-Site Controller: TT2215A
Performance	Celeron M, 1 GHz Microprocessor
Ethernet Connections	4 Auto sensing 10/100 Mbps Ports (only one supported)
Serial Connections	8 RS-232 Ports (only one supported)
Operating System	Linux
AC Input Power Requirements	100/240 VAC, 47 to 63 Hz, 50 Watts fully loaded.
Standard Warranty	Two years

PHYSICAL

Dimensions	3.54 in H x 17.32 in W x 9.96 in L without mounting tabs (90 mm H x 440 mm W x 253 mm L)
Mounting	Standard 19" rack mounting
Weight	15.4 lbs. (7 kg)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30 to +60°C (-22 to +140°F)
Humidity	5 to 95% RH
Storage Temperature	-40 to +95°C (-40 to +185°F)

STANDARDS

FCC	Part 15 Subpart B, CISPR 22 Class A
UL/cUL	UL60950-1, CSA C 22.2 No. 60950-1-03, LVD EN60950-1

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

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