



THE FUTURE OF BUSINESS COMMUNICATION, DELIVERED TODAY

# MOTOTRBO™ DIGITAL TWO-WAY RADIO REPEATERS

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.

### **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 repeaters are backed by a two-year Standard Warranty.



**PRODUCT SPEC SHEET**  
**MOTOTRBO™ XPR™ 8400 REPEATER**

**GENERAL SPECIFICATIONS**

	<b>XPR 8400</b>		
	<b>VHF</b>	<b>UHF Band I</b>	<b>UHF Band II</b>
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**

		<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: 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	
<b>RECEIVER</b>			<b>ONLY THE FOLLOWING FREQUENCIES ARE SUPPORTED BY THE XPR 8380</b>		
Frequencies		806-825 MHz 896-902 MHz	<b>Band</b>	<b>Receive</b>	<b>Transmit</b>
Channel Spacing		12.5 kHz / 25 kHz for 800 MHz 12.5 kHz only for 900 MHz	800 MHz	806.0125 806.5125	851.0125 851.5125 866.0125
Frequency Stability (-30° C, +60° C)		+/- 0.1 ppm		807.0125 807.5125	821.0125 821.5125 822.0125 822.5125 852.0125 852.5125 867.0125
Analog Sensitivity (12dB SINAD)		0.22 uV (typical)		808.0125	823.0125 853.0125 868.0125
Digital Sensitivity		5% BER: 0.3 uV 0.22 uV (typical)		809.000 - 820.9875	824.000 - 825.000 854.000 - 865.9875 869.000 - 870.000
Intermodulation (TIA603C)		78 dB	900 MHz	896.000 - 902.000*	935.000 - 941.000*
Adjacent Channel Selectivity TIA603		65 dB @ 12.5 kHz, 75 dB @ 25 kHz			
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			
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

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

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R3-7-2013C

