

XTL™ 2500 RB & XTL™ 1500 RB Mobile Radios for 800 MHz Rebanding

SPECIFICATION SHEET



XTL™ 2500 RB

MODEL FEATURES

- Frequency Band – 806-869 MHz
- Power Level – 10-35 Watt
- 255 channels (Standard)
- Type II Trunking Only
- 5 Programmable buttons x 4 deep in menu functions
- 14 digit character display
- Tri-color backlit LCD display
- Emergency button
- Multi level dim button
- Dash/Remote mount*
- Meets Military Specs 810 (C,D, E & F)
- Utilizes Windows®-based customer programming
- Built in FLASHport™ support
- Optional keypad microphone
- External Speaker
- Dual Control Head*
- USB/RS232 connectivity
- Optional Siren PA*
- Optional Direct Entry Keypad

*depending upon configuration



Upgradeable Features:

- Dual mode operation (ASTRO Digital & Analog)
- 9600 & 3600 Baud capable
- Project 25 operation on Conventional & Trunking systems
- Project 25 compliant interoperable voice signaling features
- Integrated voice & data operation

Encryption Capable:

- Type III (optional)
- Allows for MultiKey for single algorithms ONLY
- Algorithms supported:
 - DVI-XL - DES
 - DVP-XL - DES-XL
 - AES - DES-OFB
 - Advanced Digital Privacy (ADP)

Reuse of most ASTRO/MCS accessories

XTL™ 1500 RB

MODEL FEATURES

- Frequency Band – 806-869 MHz
- Power Level – 10-35 Watt
- 48 Channels
- Emergency button
- Dash mount
- Meets Military Specs 810 (C,D, E and F)
- Utilizes Windows®-based customer programming
- Built in FLASHport™ support
- Internal Speaker



Upgradeable Features:

- Dual mode operation (ASTRO Digital and Analog)
- Optional Keypad microphone
- 255 Channels
- Integrated voice and data capable

These mobile radios are specifically designed to meet the needs of your organization for Rebanding replacement models and are only available as replacement radios for Rebanding systems. This specification sheet can be used to help you determine which radios best fit the configurations you are replacing.

Motorola's XTL 2500 RB mobile radio is tough and well suited as a replacement radio for users in Police, Fire, EMS, and State/Local/Federal Government agencies. Motorola's XTL 1500 RB mobile radio is tough and well suited for users in a construction, utility, petroleum, or local law enforcement environment. Taking into consideration your work environment and various job responsibilities, these robust mobile radios support the type of consistent, high quality communication you need with the features agencies most use.

The XTL 2500 RB mobile radio works with many of the accessories used with the XTL 5000 mobile radio and it can be upgraded to a full XTL 2500 including dual mode support for ASTRO Digital, 700 MHz Operation and Project 25. The XTL 1500 RB radio works with some of the accessories common to the XTL 2500 mobile radio and can be upgraded to a full XTL 1500 including support for Project 25 and 700 MHz Operation.

GENERAL PERFORMANCE SPECIFICATIONS

Frequency range	806-869 MHz
Channel Bandwidth	
Analog	12.5/20/25 kHz
Digital	12.5 kHz

RECEIVER

Frequency	800 MHz
Channel Spacing	12.5 / 20 / 25 kHz
Maximum Frequency Separation	Full Bandsplit
Analog Sensitivity	
20 db Quieting	.30 μ V
12 db SINAD per EIA	.25 μ V
Intermodulation	80 dB
Spurious Response Rejection	80 dB
Audio Output Power at 3% distortion	7.5 W (ext. speaker)
(External/Internal Speaker)	3 W (int. speaker)
Adjacent Channel Rejection Selectivity	65 dB 80 dB
(12.5 kHz/25 kHz)	

MOBILE

Dimensions	Radio Transceiver 2" x 7" x 7.8" (50.8 x 177.8 x 198.1 mm) Control Head 2.35" x 7.1" x 2.5" (59.7 x 180.3 x 63.5 mm) Radio Transceiver and Control Head – Dash Mount 2.35" x 7.1" x 9.1" (59.7 x 180.3 x 231.1 mm)
Weight	Radio Transceiver and Control Head 6.1 lbs (2.77 kg)

TRANSMITTER

Frequency	806-825 MHz 851-870 MHz
RF Power	10-35W
Max Freq Separation	Full Bandsplit
Freq Stability Operating Freq Accuracy	
(-30°C to +60°C; +25°C Ref)	1.5 ppm
Modulation Limiting	
25/20 kHz channel	\pm 5 kHz, +/-4 kHz (NPSPAC)
12.5 kHz channel	\pm 2.5 kHz
Channel Spacing Analog	12.5/20/25 kHz
FM Hum and Noise	
20/25 kHz	40 dB
12.5 kHz	34 dB
Emissions	Conducted Radiated -70 dBc -85 dBc
Audio Response	
(6 dB/Octave Pre-emphasis	
from 300 to 3000 Hz)	+1, -3 dB (EIA)
Audio Distortion per EIA	2%

XTL™ 2500 RB

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Emissions	Conducted Radiated
	-70 dBc -85 dBc
Audio Response	
(6 dB/Octave Pre-emphasis	
from 300 to 3000 Hz)	+1, -3 dB (EIA)
Audio Distortion per EIA	2%

MOBILE

Dimensions	Radio Transceiver and Control Head
	2.6" x 7.3" x 9.8"
	(65 x 185 x 248 mm)
Weight	Radio Transceiver and Control Head
	5.2 lbs (2.34 kg)

XTL™ 1500 RB

Features Common to Both XTL 2500 RB & XTL 1500 RB

POWER AND BATTERY DRAIN

Model Type	806-869 MHz
Minimum RF Power Output	10-35 Watt
Operation	12V DC Negative Ground
Standby at 13.8V	0.7A
Receive at Rate Audio at 13.8V	3.0A
Transmit at Rated Power	8A (15W), 13A (35W)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C / +60°C
Storage Temperature	-55°C / +85°C
International Protection	IP54 certified

SPEAKER

Dimensions	5.5" x 5.5" x 2.5" (139.7 x 139.7 x 63.5 mm) (Excluding mounting bracket)
Weight	1.5 lbs (0.68 kg)

FCC TYPE ACCEPTANCE ID

Transmitter	
Power Output	10-35 W
Number	AZ492FT5823

MILITARY STANDARDS 810 C, D, E, & F

	MIL-STD – 810C		MIL-STD – 810D		MIL-STD – 810E		MIL-STD – 810F	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II
High Temperature Storage	501.1	I	501.2	I/A1	501.3	I/A1	501.4	I/Hot
High Temperature Storage	501.1	II	501.2	II/A1	501.3	II/A1	501.4	I/Hot
Low Temperature Storage	502.1	I	502.2	I/C3	502.3	I/C3	502.4	I/C3
Low Temperature Operational	502.1	I	502.2	II/C1	502.3	II/C1	502.4	II/C1
Temperature Shock	503.1	-	503.2	I/A1-C3	503.3	I/A1-C3	503.4	I/Hot-C3
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I
Rain Blowing	506.1	I	506.2	I	506.3	I	506.4	I
Rain Steady	506.1	II	506.2	II	506.3	II	506.4	III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-
Salt Fog	509.1	-	509.2	-	509.3	-	509.4	-
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I
Blowing Sand			510.2	II	510.3	II	510.4	II
Vibration Minimum Integrity	514.2	VIII/F, Curve-W	514.3	I/10	514.4	I/10	514.5	I/24
Vibration Loose Cargo			514.3	II/3	514.4	II/3	514.5	II/5
Shock Functional	516.2	I	516.3	I	516.4	I	516.5	I
Shock Crash Hazard	516.2	III	516.3	V	516.4	V	516.5	V
Shock Bench Handling	516.2	V	516.3	VI	516.4	VI	516.5	VI



Motorola, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A.
www.motorola.com/governmentandenterprise 1-800-367-2346

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