

GENERAL

SPECIFICATION	VHF/UHF
Channel Capacity	16 Channels
Dimensions (with Li-Ion Battery)	95mm x 26.5mm x 55.1mm
Weight (with Li-Ion Battery)	250 grams
Power Supply	Rechargeable battery 7.5 V
Average Battery Life @ 5/5/90 Cycle	
Slim Li-Ion Battery	Low Power: 10 hours High Power: 7 hours
High Capacity Li-Ion Battery	Low Power: 14 hours High Power: 10 hours

TRANSMITTER

SPECIFICATION	VHF/UHF
Frequencies	136-174 MHz 403-470 MHz 450-512 MHz
Channel Spacing	12.5 kHz/20/25 kHz
Freq. Stability (-30° C to 60° C, +25° Ref.)	±2.5 ppm @12.5 kHz ±4 ppm @20/25 kHz
Power	1 W, 5 W, 136-174 MHz 1 W, 4 W, 403-470 MHz 1 W, 4 W, 450-512 MHz
Modulation Limiting	±2.5 KHz @12.5 kHz ±4 KHz @20 kHz ±5 KHz @25 kHz
FM Hum & Noise	-34 dB @12.5 kHz -40 dB @20/25 kHz
Conducted/Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz
Adjacent Channel Power	-60 dBc @12.5 kHz -70 dBc @20/25 kHz
Audio Response (300 - 3000 Hz)	+1 to -3dB of a 6 dB/octave pre-emphasis
Audio Distortion	3%

For more information, please contact:

WoRAD Inc.
 299 Brooks St.
 Worcester, MA 01606

Tel: 508-852-2693
 Fax: 508-852-2704
 email: worad@worad.com

RECEIVER

SPECIFICATION	VHF/UHF
Frequencies	136-174 MHz 403-470 MHz 450-512 MHz
Channel Spacing	12.5/20/25 kHz
Freq. Stability (-30° C to 60° C, +25° Ref.)	±2.5 ppm @12.5 kHz ±4 ppm @20/25 kHz
Sensitivity (12 dB SINAD)	0.35 µV
Intermodulation	70 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz 70 dB @ 20/25 kHz
Spurious Rejection	70 dB
Rated Audio	0.5 W
Audio Distortion @ Rated Audio	3% typical
Hum and Noise	-34 dB @12.5 kHz -40 dB @20/25 kHz
Conducted Spurious Emission	-57 dBm < 1 GHz -47 dBm > 1 GHz

NOTE: All RX Hum and Noise numbers assume a low level expander is used.

**PORTABLE MILITARY STANDARDS
 810 C, D & E**

	810C		810D		810E	
Applicable	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temp	501.1	1,2	501.2	1,2	501.3	1,2
Low Temp	502.1	2	502.2	1,2	502.3	1,2
Temp. Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Rain	506.1	1,2	506.2	1,2	506.3	1,2
Humidity	507.1	2	507.2	2,3	507.3	2,3
Salt Fog	509.1	1	509.2	1	509.3	1
Dust	510.1	1	510.2	1	510.3	1
Shock	516.2	1,2,5	516.3	1,4	516.4	1,4
Vibration	514.2	8,10	514.3	1	514.4	1

ENVIRONMENTAL

PARAMETER	SPECIFICATION
Operating Temperature Radio only	-30 to 60° C
Storage Temperature	-55 to 85° C
Thermal Shock	-40 to 85° C
Humidity	95% RH @ 8 Hr.
Sand Dust	Blowing Dust: 5 Hr. Non-operating IP54
Vibration	SINE 10-60Hz 30 min/axis
Drop Test	42 drops from 121.9cm height
Flame Resistance	UL94 HB
ESD	IEC 801-2 KV
Water Intrusion	IP54
Packing Test	5 feet

MOTOROLA

MOTOROLA, the Stylized M Logo and all other trademarks indicated as such herein are trademarks of Motorola, Inc. ® Reg. U.S. Pat. & Tm. Off.

www.motorola.com/cgiss

MD-EX500-01

