

# MOTOTRBO™ SL500 PORTABLE RADIO

## INNOVATIVE AND RUGGED DESIGN



The MOTOTRBO™ SL500 provides reliable push-to-talk communication for the mobile, everyday user in an ultra-slim and rugged profile. Whether you're coordinating an event or working in the field, the SL500 is boldly designed to keep you efficiently connected.

The latest technology works to make operation of the SL500 simple and straightforward. Ergonomic design allows one-handed radio operation, and a versatile accessory portfolio gives you the freedom to focus on the job at hand.

The SL500 is compatible with the MOTOTRBO features you'll find are business-essential, for example a transmission can be interrupted to prioritize critical communications. Additionally, the SL500 utilizes digital and analog radio technology concurrently to fit seamlessly into your existing communication system.

### ULTRA-SLIM PROFILE

Measuring under an inch thick, the SL500 is ultra-portable. A stubby antenna, curved edges and rugged frame make the SL500 the perfect work partner. It can be easily carried in pockets and purses without snagging or bulging.

### ADVANCED TECHNOLOGY

The SL500 is outfitted with the latest technology for performance and ease of use. The shatterproof Active View display uses a matrix of LEDs behind the radio housing to communicate radio information and shuts off when not in use to conserve battery life. The SL500 features Range Max technology: an advanced radio design and patented antenna which delivers enhanced range while maintaining a slim profile and long battery life.

### SIMPLE OPERATION

The SL500 has been designed for easy, intuitive use. The side volume control, dedicated power button, prominent push-to-talk button, and top toggle channel switch have all been designed for quick one-hand access. Channel "fast toggle" allows users to scroll through 10 channels at a time.

### RUGGED AND RELIABLE

The SL500 is built to last. IP54 rated for dust and water resistance, it can be used even in harsh environments. This radio can survive many drops and tumbles. It has also been proven tough in Motorola's grueling Accelerated Life Test, where the radio is tested against a simulated 5 years of hard service before it is accepted.

## GENERAL SPECIFICATIONS

	VHF	UHF BAND 1
	DISPLAY	DISPLAY
Channel Capacity	99	99
Typical RF Output		
Low Power Output		} with Range Max technology
High Power Output		
Analog	1W	
Digital	2W	
	3W	
Frequency	136-174 MHz	403-470 MHz
Dimensions (H x W x L)	4.95 X 2.17 x 0.87 in (125.7 X 55.0 X 22.0 mm)	
Weight with Battery	5.96 oz (168.9 g)	5.84 oz (165.6 g)
Power Supply	3.7V (Nominal)	
Battery Life <sup>1</sup> [Li-Ion (2300mAh) Battery]		
Analog (hours)	11.8	11.8
Digital (hours)	14	14
FCC Description	AZ489FT3835	AZ489FT4922
IC Description	109U-89FT3835	109U-89FT4922

## RECEIVER

	VHF	UHF BAND 1
Frequency	136-174 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz <sup>2</sup>	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 1.5 ppm	
Analog Sensitivity (12 dB SINAD)	0.3 uV 0.22 uV (typical)	
Digital Sensitivity (5% BER)	0.25 uV 0.19 uV (typical)	
Intermodulation (TIA603D)	70dB	
Adjacent Channel Selectivity (TIA603A)-1T	60dB @ 12.5 kHz 70dB @ 25 kHz	
Adjacent Channel Selectivity (TIA603D)-2T	45 dB @ 12.5 kHz 70 dB @ 25 kHz <sup>2</sup>	
Spurious Rejection (TIA603D)	70 dB	
Rated Audio	0.5 W (Internal)	
Audio Distortion @ Rated Audio	5% (3% typical)	
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz <sup>2</sup>	
Audio Response	TIA603D	
Conducted Spurious Emissions (TIA603D)	-57 dBm	

<sup>1</sup> Average battery life at 5/5/90 duty cycle, transmitter in high power. Actual battery runtime observed may vary.

<sup>2</sup> 25 kHz is not available in the U.S.

Specifications subject to change without notice. All specifications shown are typical.



## TRANSMITTER

		VHF	UHF BAND 1
Frequency		136-174 MHz	403-470 MHz
Channel Spacing		12.5 kHz / 25 kHz <sup>1</sup>	
Frequency Stability (-30°C, +60°C, +25°C Ref)		± 1.5 ppm	
Low Power Output		1W	
High Power Output	Analog	2W	
	Digital	3W	
Modulation Limiting		± 2.5 kHz @ 12.5 kHz ± 5.0 kHz @ 25 kHz <sup>1</sup>	
FM Hum and Noise		-40 dB @ 12.5 kHz -45 dB @ 25 kHz <sup>1</sup>	
Conducted / Radiated Emission		-36 dBm < 1 GHz -30 dBm > 1 GHz	
Adjacent Channel Power		60 dB @ 12.5 kHz 70 dB @ 25 kHz <sup>1</sup>	
Audio Response		TIA603D	
Audio Distortion		3% (typical)	
4FSK Digital Modulation		12.5kHz Data: 7K60F1D & 7K60FXD 12.5kHz Voice: 7K60F1E & 7K60FXE Combination of 12.5kHz Voice and Data: 7K60F1W	
Digital Vocoder Type		AMBE +2™	
Digital Protocol		ETSI TS 102 361-1, -2, -3	



Applicable MIL-STD	810C		810D		810E		810F		810G	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.5	I/A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II - Aggravated
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24, II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, V, VI

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature <sup>2</sup>	-30°C / +60°C
Storage Temperature	-40°C / +85°C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IEC60529 - IP54
Packaging Test	MIL-STD 810D and E

<sup>1</sup> 25 kHz is not available in the U.S.

<sup>2</sup> Radio only. Operating temperature specification for a Li-Ion battery is -10 °C to +60 °C.

Specifications subject to change without notice. All specifications shown are typical.

**DATA SHEET**

SL500 PORTABLE RADIO

**MOTOTRBO SL500 SERIES ACCESSORIES**



**CARRY ACCESSORIES**

Our versatile portfolio includes a flexible hand strap, rotating heavy duty belt clip, and swivel carry holster. A nylon wrist strap also can be attached at the top of the radio.

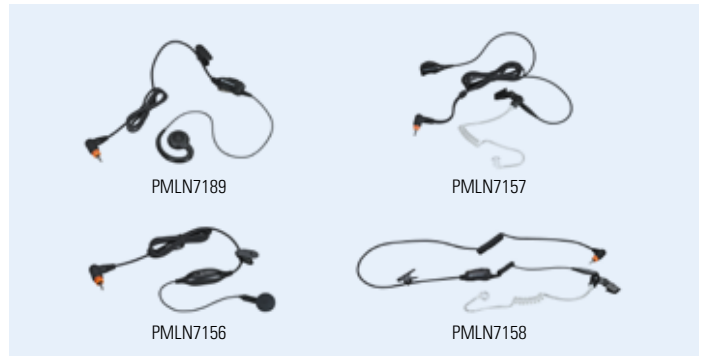
PART #	DESCRIPTION
PMLN6074	Nylon Wrist Strap
PMLN7076	Flexible Quick Release Hand Strap
PMLN7128	Heavy-Duty Swivel Belt Clip
PMLN7190	Carry Holder/Holster with Swivel Belt Clip



**ANTENNAS**

Outfit your SL500 with high efficiency stubby antennas. Colored antenna ID bands are available for easy customization.

PART #	DESCRIPTION
PMAE4093	UHF Stubby Antenna for the 403-425MHz range (4.5cm)
PMAE4094	UHF Stubby Antenna for the 420-445MHz range (4.5cm)
PMAE4095	UHF Stubby Antenna for the 435-470MHz range (4.5cm)
PMAD4144	VHF Stubby Antenna for the 136-144MHz range (5cm)
PMAD4145	VHF Stubby Antenna for the 144-156MHz range (5cm)
PMAD4146	VHF Stubby Antenna for the 156-174MHz range (5cm)
32012144001	Antenna ID Band (Gray, Pack of 10)
32012144002	Antenna ID Band (Yellow, Pack of 10)
32012144003	Antenna ID Band (Green, Pack of 10)
32012144004	Antenna ID Band (Blue, Pack of 10)
32012144005	Antenna ID Band (Purple, Pack of 10)



**AUDIO ACCESSORIES**

MOTOTRBO audio accessories for SL500 are designed for lasting comfort and improved device performance. In-line microphones and prominent push-to-talk features provide easy hands-free communication.

PART #	DESCRIPTION
PMLN7189	Swivel Earpiece with in-line microphone and push-to-talk
PMLN7156	Mag One Earbud with in-line microphone and push-to-talk
PMLN7157	2-Wire Surveillance Kit with translucent tube, black
PMLN7158	1-Wire Surveillance Kit with in-line microphone and push-to-talk, black
PMLN7159	Adjustable D-style earpiece with in-line microphone and push-to-talk, black
RLN6242	Low Noise Kit with translucent tube and 1 clear rubber eartip
5080384F72	Replacement Foam Plugs for RLN6242. Noise Reduction = 24dB. Pack of 50 pairs
RLN6282	Replacement standard clear rubber eartip for RLN6242. Pack of 50



**BATTERIES, CHARGERS AND CABLES**

Keep your radios functioning at all times with these essentials. Charge your Lithium Ion batteries in MOTOTRBO single or multi-unit charging docks.

PART #	DESCRIPTION
PMNN4468	Li-Ion 2300 mAh battery
PMLN7074	Replacement Battery Cover
25009298001	Micro-USB Single-Unit Rapid Rate 5V/1A, Plug-In Power Supply, 5W, 100V-240V (US plug)
PMLN7101	Six-Pocket Multi-Unit Rapid Rate Charger, 90V-264V (US plug)
PMLN7109	Single-Unit Rapid Rate Charger 5V/1A, 5W, 100V-240V (US Plug)
CB000262A01	Micro USB Programming Cable

For more information, go to [www.motorolasolutions.com/SL500](http://www.motorolasolutions.com/SL500)

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. ©2015 Motorola, Inc. All rights reserved. 2015-07



Recommended Dealer: [www.hkrsolutions.com](http://www.hkrsolutions.com) **HKRSolutions**  
Two-way Radio & Accessories Specialist

**MOTOTRBO**  
REINVENTING  
DIGITAL