



# MOTOTRBO™ SL1M PORTABLE RADIO

## PORTABILITY AND SIMPLICITY REDEFINED



The MOTOTRBO™ SL1M 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 SL1M is boldly designed to keep you efficiently connected.

The latest technology works to make operation of the SL1M 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 SL1M 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 SL1M utilizes digital and analog radio technology concurrently to fit seamlessly into your existing communication system.

### ULTRA-SLIM PROFILE

Measuring under an inch thick, the SL1M is ultra-portable. A stubby antenna, curved edges and rugged frame make the SL1M the perfect work partner. It can be easily carried in pockets and purses without snagging or bulging.

### SIMPLE OPERATION

The SL1M 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.

### ADVANCED TECHNOLOGY

The SL1M 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 SL1M features Range Max technology: an advanced radio design and patented antenna which delivers enhanced range while maintaining a slim profile and long battery life.

### RUGGED AND RELIABLE

The SL1M 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.

**DATA SHEET**  
SL1M PORTABLE RADIO

**GENERAL SPECIFICATIONS**

|   | VHF   | UHF BAND 1    |
|---|---|---------------|
|   | Display   | Display       |
| Channel Capacity                        | 256   |               |
| Typical RF Output                       |   |               |
| Low Power Output                        | 1W  |               |
| High Power Output                       | 2W  |               |
|   | 3W  |               |
|   | with Range Max technology                         |               |
| Frequency                               | 136-174 MHz                                       | 403-470 MHz   |
| Dimensions (H x W x L)                  | 4.95 X 2.17 x 0.87 in<br>(125.7 X 55.0 X 22.0 mm) |               |
| Weight with Battery                     | 5.76 oz / 163.4 g                                 |               |
| Power Supply                            | 3.7V (Nominal)                                    |               |
| Battery Life [Li-Ion (2300mAh) Battery] |   |               |
| Analog (hours)                          | 11.8*   |               |
| Digital (hours)                         | 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                    |             |
| Frequency Stability (-30°C, +60°C, +25°C Ref) | ± 0.5 ppm                            |             |
| Analog Sensitivity (12 dB SINAD)              | 0.3 uV<br>0.22 uV (typical)          |             |
| Digital Sensitivity (5% BER)                  | 0.25 uV<br>0.19 uV (typical)         |             |
| Intermodulation (TIA603D)                     | 70dB                                 |             |
| Adjacent Channel Selectivity (TIA603D)        | 45 dB @ 12.5 kHz<br>70 dB @ 25 kHz   |             |
| 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<br>-45 dB @ 25 kHz |             |
| Audio Response                                | TIA603D                              |             |
| Conducted Spurious Emissions (TIA603D)        | -57 dBm                              |             |



\* Average battery life at 5/5/90 duty cycle, transmitter in high power. Actual battery runtime observed may vary. Specifications subject to change without notice. All specifications shown are typical.



**DATA SHEET**  
SL1M PORTABLE RADIO

**TRANSMITTER**

|  | VHF   | UHF BAND 1  |
|--|---|-------------|
| Frequency  | 136-174 MHz   | 403-470 MHz |
| Channel Spacing                                  | 12.5 kHz / 25 kHz   |             |
| Frequency Stability<br>(-30°C, +60°C, +25°C Ref) | ± 0.5 ppm   |             |
| Low Power Output                                 | 1W  |             |
| High Power Output                                | 2W  |             |
|  | 3W  |             |
| Modulation Limiting                              | ± 2.5 kHz @ 12.5 kHz<br>± 5.0 kHz @ 25 kHz  |             |
| FM Hum and Noise                                 | -40 dB @ 12.5 kHz<br>-45 dB @ 25 kHz  |             |
| Conducted / Radiated Emission                    | -36 dBm < 1 GHz<br>-30 dBm > 1 GHz  |             |
| Adjacent Channel Power                           | 60 dB @ 12.5 kHz<br>70 dB @ 25 kHz  |             |
| Audio Response                                   | TIA603D   |             |
| Audio Distortion                                 | 3% (typical)  |             |
| 4FSK Digital Modulation                          | 12.5kHz Data: 7K60F1D & 7K60FXD<br>12.5kHz Voice: 7K60F1E & 7K60FXE<br>Combination of 12.5kHz Voice and Data: 7K60F1W |             |
| Digital Vocoder Type                             | AMBE +2™  |             |
| Digital Protocol                                 | ETSI TS 102 361-1, -2, -3   |             |



|                    | 810C    |                 | 810D    |             | 810E    |             | 810F    |               | 810G    |                 |
|--------------------|---------|-----------------|---------|-------------|---------|-------------|---------|---------------|---------|-----------------|
| Applicable MIL-STD | 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-cat.24        |
| 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    | -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    |

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## MOTOTRBO SL1M SERIES ACCESSORIES



PMLN7076



PMLN7128



PMLN7190

### 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 |



UHF



VHF



Antenna ID Bands

### ANTENNAS

Outfit your SL1M 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)                |

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PMLN7189



PMLN7156



PMLN7157



PMLN7158

### AUDIO ACCESSORIES

MOTOTRBO audio accessories for SL1M 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 Available Q1 2015 |
| 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                              |



PMLN7109



PMLN7101



PMNN4468



### 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    | BT100x Li-Ion 2300 mAh battery  |
| PMLN7074    | Replacement Battery Cover   |
| PS000042A11 | Power Supply Adapter, AC/DC, Switch Mode, 5W, 100 V- 240 V, Micro-USB, US |
| PS000042A12 | Power Supply Adapter, AC/DC, Switch Mode, 5W, 100 V- 240 V, Micro-USB, EU |
| PS000042A13 | Power Supply Adapter, AC/DC, Switch Mode, 5W, 100 V- 240 V, Micro-USB, UK |
| CB000262A01 | Micro USB Programming Cable   |
| PMLN7109    | CHR STD SUC EXT US  |
| PMLN7110    | CHR STD SUC EXT EU  |
| PMLN7163    | CHR STD SUC EXT UK  |
| PMLN7101    | CHR STD MUC INT US  |
| PMLN7102    | CHR STD MUC INT EU  |
| PMLN7162    | CHR STD MUC INT UK  |

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

**MOTOTRBO™**  
DIGITAL REMASTERED.