

Data Sheet

LACR

MOTOTRBO™

SLR 8000

Base station / repeater



For better safety and efficiency throughout your organization, you need reliable voice and data communications that connect everyone and everything. The MOTOTRBO SLR 8000 repeater delivers high performance, high reliability two-way radio service, optimized for your workplace.

The SLR 8000 is engineered for high performance, reliability and flexibility and represents the next generation in repeaters. Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. It integrates voice and data seamlessly, offers advanced features that are easy to use and delivers increased capacity to meet your communication needs from the field to the factory floor.

Whether you need the simplicity of a single site conventional system, the coverage of IP Site Connect, or the powerful trunking capabilities of Capacity Plus, Capacity Max or Connect Plus, the SLR 8000 delivers the power of digital two-way radio to your workforce. It can also operate as an analog repeater (conventional or MPT 1327), or as a mixed mode analog/digital repeater while you transition away from a legacy analog system.



General specifications

	VHF	UHF	800/900
Frequency Range	136 - 174 MHz	400 - 470 MHz	800 RX: 806 - 825 MHz TX: 851 - 870 MHz 900 RX: 896 - 902 MHz TX: 935 - 941 MHz
Channel Spacing	25*/ 12.5 kHz		12.5 / 20 kHz / 30 kHz
Channel Step Size	5 Hz		
Frequency Stability	+ / - 0.5 PPM		+ / - 0.1 PPM
Channel Capacity	64		
RF Output Power	1 - 100 W		
Dimensions (H x W x D)	3.5 x 19 x 17.25 in (89 x 483 x 438 mm)		
Weight	31 lbs (14.1 kg)		
Input Voltage (AC)	100 - 240 Vac, 47 - 63 Hz		
Current (standby), 110 / 240 V	0.25 / 0.3 A		0.27 / 0.31 A
Current (transmitting at 100 W), 110 / 240 V	2.1 / 1.1 A (typical)	2.0 / 1.1 A (typical)	2.8 / 1.3 A (typical)
Input Voltage (DC)	12 V (11.0 - 15.5 V) / 24 V (21.6 - 32.0 V)		
Current (standby), 24 V	0.5 A		0.6 A
Current (transmitting at 100 W), 24 V	8.6 A (typical)	8.2 A (typical)	12 A
Input Voltage (DC)	AC only, DC only, AC with Battery Revert		
Operating Temperature Range	-22 to +140 °F (-30 to +60 °C)		
Humidity	RH of 95%, Non-condensing at 50 °C (122 °F)		
Max Duty Cycle	100%		
Digital Vocoder Type	AMBE+2™		
Battery Charger Capacity (12 / 24 V)	5 A		
Connectivity, front panel	USB B Receptacle, Microphone (RJ45), Speaker (integrated)		
Connectivity, rear panel	Tx (N female), Rx (BNC female), USB A Receptacle, 2x Ethernet, DB25 Accessory Connector, External Reference (BNC Female)		
External Reference	5 / 10 MHz (Auto-detect)		
Supported System Types	Digital Conventional, IP Site Connect, Capacity Plus, Capacity Max, Connect Plus Analog Conventional, Analog Conventional Voting, MPT 1327		
Audio Types	Input: Balanced (600 ohms and Country-specific Impedances), Unbalanced (1000 ohms), Microphone Accessory Port. Output: Balanced (600 ohms and Country-specific Impedances), Unbalanced (600 ohms), Integrated Speaker.		
Audio Levels	Input: Balanced: +10 to -30 dBm, Unbalanced: Adjustable, 80 mV rms nominal for 60% RSD. Output: Balanced: +7 to -30 dBm, Unbalanced: Adjustable, 330 mV rms nominal @ 60% RSD.		
FCC Emission Designators	11K0F3E, 16K0F3E, 7K60FXD, 7K60F7D, 7K60FXE, 7K60F7E, 7K60F7W		11K0F3E, 16K0F3E, 7K60FXD, 7K60F7D, 7K60FXE, 7K60F7E, 7K60F7W, 21K7D7E, 21K7D7D, 21K7D7W
FCC Type Acceptance	ABZ99FT3095	ABZ99FT4098	ABZ99FT5101
IC Description	109AB-99FT3095	109AB-99FT4098	109AB-99FT5101



General specifications

RECEIVER			
	VHF	UHF	800/900
Frequency Range	136 - 174 MHz	400 - 470 MHz	806 - 825 MHz 896 - 902 MHz
Sensitivity, 12dB SINAD	0.3 uV (0.18 uV typical)		0.28 uV (0.18 uV typical)
Sensitivity, 5% BER	0.25 uV (0.18 uV typical)		0.28 uV (0.18 uV typical)
Selectivity (TIA603E), 25* / 12.5 kHz	83 / 52 dB	78 / 52 dB	78 / 52 dB
Selectivity (TIA603), 25* / 12.5 kHz	83 / 75 dB	80 / 75 dB	80 / 75 dB
Intermodulation Rejection (TIA603E/ETSI)	85 / 73 dB (87 / 78 dB typical)		85 / 73 dB (88 / 79 dB typical)
Spurious Rejection (TIA603E/ETSI)	85 / 75 dB (95 / 90 dB typical)		90 / 75 dB (105 / 90 dB typical)
Audio Distortion	< 3% (<2% typical)		
Hum and Noise, 25* / 12.5 kHz	-50 / -45 dB (-56 / -52 dB typical)		
Blocking	> 110 dB (113 dB typical)		

TRANSMITTER			
	VHF	UHF	800/900
Frequency Range	136 - 174 MHz	400 - 470 MHz	851 - 870 MHz 935 - 941 MHz
RF Output Power	DC (24 V) or AC 1 - 100 W DC (12 V) 1 - 50 W		
Max Duty Cycle	100%		
Intermodulation Attenuation	55 dB		
Adjacent Channel Power (TIA603E), 25* / 12.5 kHz	75 / 60 dB		
Adjacent Channel Power (ETSI), 25* / 12.5 kHz	75 / 60 dB (78 / 62 dB typical)		70 dB / 63 dB (82 / 76 dB typical)
Conducted Spurious Emissions	- 57 dBm		
Audio Response	TIA603D		
Hum and Noise, 25* / 12.5 kHz	-50 / -45 dB (-55 / -52 dB typical)		
Rated System Deviation, 25* / 12.5 kHz	±5.0 / ±2.5 kHz		

Product meets

- ETSI 300-086
- ETSI 300-113
- TIA/EID603D
- CE Marked
- RoHS2-Compliant
- UL Listed
- Digital Protocol
 - ETSI 102 361-1, -2, -3, -4



**Images show product equipped with optional modules

Notes
 * 25 kHz channels not available in the US.
 Availability is subject to individual country law and regulations.
 All specifications shown are guaranteed unless otherwise stated and are subject to change without notice.
 Specifications are for unit excluding options, unless otherwise stated.



Next generation MOTOTRBO repeater

The SLR 8000 represents a huge leap forward in design and technology. Based on a wealth of field experience, customer feedback and technological innovation, the product delivers outstanding performance and reliability for your business two-way radio system. From an efficient modular design to flexible installation options, the SLR 8000 is truly the next generation in repeaters.

High performance

With its 100 W transmitter output and high sensitivity receiver input, the SLR 8000 delivers radio coverage to an enormous area. With its excellent performance characteristics, it is also ideally suited for congested sites, where tighter specifications are required.

The SLR 8000 supports the full MOTOTRBO feature set, and is compatible with all the MOTOTRBO system architectures: single site conventional, IP Site Connect, Capacity Plus, Capacity Max and Connect Plus. The IP interface allows you to build applications and consoles directly into your system.

To help you build your system for top performance, MOTOTRBO RF Planning and IP Integration Services are available for purchase.

High reliability

The SLR 8000 offers round-the-clock reliable operation, even at its continuous full transmit power of 100W. The high-quality design has been validated through Motorola's Accelerated Life Testing (ALT) program, and meets stringent quality criteria. The product has a next-generation receiver design, with high sensitivity and improved noise blocking, so you can be confident of clear voice quality, even in the worst conditions. The unit has internal monitoring circuitry, allowing you to

measure parameters such as input voltage and current, output power, module temperatures and VSWR. This can be accessed through the front panel maintenance interface, or through a remote management application such as RDAC.

The standard warranty is 2 years, and can be enhanced with Service from the Start: a full service support program that protects your hardware investment with prioritized expert repair, proactive technical support, software updates and more.

Total flexibility

The SLR 8000 can be customized to suit your operation. There are options for an internal preselector and antenna relay module, offering you a true one-box installation. You can also opt for an internal wireline card if you need tone control capabilities, 4wire audio and additional external inputs.

Power can be supplied as 110-240 Vac, 12-24 Vdc, or AC with battery fallback: there is even a built-in 5 A battery charger. The 2U unit can be mounted efficiently in a rack, with no requirement for ventilation space above or below. And serviceability is improved by the local voice capability: there is an internal speaker and volume control, with provision for an external microphone.

MOTOTRBO SLR 8000

With excellent performance, high reliability and a flexible design in a slim and efficient unit, the SLR 8000 repeater is at the heart of a top-quality MOTOTRBO professional two-way radio system.

For more information on how to make your business more efficient and better connected, visit www.motorolasolutions.com/mototrbo

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