

Data Sheet

LACR

MOTOTRBO™

SLR5100 repeater

Base station / repeater



For your business to be successful, you need dependable voice and data communications that reach every corner of your operations. The MOTOTRBO SLR5100 repeater delivers high performance, high reliability two-way radio service with all the features you need to connect your workplace.

With its sleek form factor and low power consumption, it's engineered for low cost of ownership. And with a huge leap forward in technology, it 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, or the powerful trunking capabilities of Capacity Plus, Capacity Max or Connect Plus, the SLR5100 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.



Next generation MOTOTRBO repeater

The SLR5100 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 efficiency for your business two-way radio system. From rock-solid reliability to clever touches like an integrated battery charger, the SLR5100 is truly the next generation in repeaters.

High performance

The SLR5100 is designed to offer round-the-clock reliable operation, even at its continuous full transmit power of 50W. The high-quality design has been validated through Motorola's Accelerated Life Testing (ALT) program, and meets stringent quality criteria. To deliver reliable coverage throughout your business premises, the product has a next-generation receiver design, with high sensitivity and improved noise blocking.

Combined with the 50W transmit output power and advanced error correction, this gives you clear voice quality, even in the most adverse conditions. The SLR5100 supports the full MOTOTRBO feature set, and is compatible with all the MOTOTRBO system architectures: single site conventional, IP Site Connect, Extended Range Direct Mode, Capacity Plus (single and multi-site), 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 efficiency

The latest RF technology gives the SLR5100 exceptionally good power efficiency. Together with its space-efficient 1RU height and low thermal footprint, it gives you a very low cost of ownership.

The product has simple servicing requirements, with field-replaceable Power Amplifier, Power Supply and Modem modules. A front panel USB port allows easy configuration, with optional support for remote management. It also has built-in features such as a 3A battery charger, external alarm ports and an auxiliary power output to ease site installation.

Power Amplifier, Power Supply and Controller modules are field-replaceable. The SLR5100 comes with 3 years of Essential Services.

Designed for the future

Motorola is committed to supporting you with even more sophisticated workforce communication solutions as your needs evolve, so the SLR5100 is designed with the future in mind. Compared to first generation repeaters, it has 10x more processing power, 15x more memory and 125x more data storage. The architecture even has provision for expansion modules, should more functionality be required in the future.

MOTOTRBO SLR5100

With excellent performance, high reliability and clever design in a small, slim unit, the SLR5100 repeater is at the heart of a MOTOTRBO professional two-way radio system. To find out more, please contact your local authorized Motorola Channel Partner.



General specifications

	VHF	UHF BAND 1	UHF BAND 2	300 MHz
Frequency Range	136-174 MHz	400-470 MHz	450-512 MHz	350-400 MHz
Channel Capacity	64			
RF Output Power	1-50 W			
Dimensions (H x W x D)	44 mm x 483 mm x 370 mm (1,75" x 19" x 14,6")			
Weight	8,6 kg (19 lb)			
Input Voltage (AC)	100-240 Vac, 47-63 Hz			
Current (standby), 110 / 240 V	0,25/0,18 A			
Current (transmitting), 110 / 240 V	1,5/0,9 A			
Input Voltage (DC)	11,0 - 14,4 Vdc			
Current (standby)	0,7 A			
Current (transmitting)	9,5 A			
Operating Temperature Range	-22- +140 °F (-30-60 °C)			
Humidity	RH of 90%, non-condensing at 50 °C (122 °F)			
Max Duty Cycle	100%			
FCC Description	ABZ99FT3094B	ABZ99FT4096B	ABZ99FT4097B	-
Battery Charger Capacity	12 V, 3 A			
External DC Aux Power	12 V, 1 A			
Connectivity	Tx (N female), Rx (BNC female), USB B receptacle, 2x Ethernet			
External Reference	5 / 10 MHz (Auto-detect)			
Supported System Types	Digital Conventional, IP Site Connect, Extended Range Direct Mode, Capacity Plus (Single Site and Multi-Site), Capacity Max, Connect Plus, Analog Conventional, MPT 1327			

RECEIVER				
	VHF	UHF BAND 1	UHF BAND 2	300 MHz
Frequency Range	136-174 MHz	400-470 MHz	450-512 MHz	350-400 MHz
Channel Spacing	12,5 kHz / 25 kHz			
Frequency Stability	±0,5 ppm			
Sensitivity (typical)	0.22 uV (12dB SINAD and 5% BER)			
Intermodulation (typical)	82 dB			
Selectivity (TIA603E), 25 / 12.5 kHz 83	83/55 dB	83/55 dB	80/55 dB	55 / 80 / 80 dB
Selectivity (TIA603), 25 / 12.5 kHz 83	83/68 dB	80/63 dB	80/68 dB	68 / 80 / 80 dB
Selectivity (ETSI) 25/12.5 KHz	70/63 dB			
Intermodulation Rejection (TIA603E/ETSI)	82/73 dB			
Spurious Rejection (TIA603E/ETSI)	95/90 dB			
Audio Distortion	<2%			
Hum and Noise (12.5 kHz/25 kHz)	-45 / 50 dB			



General specifications

TRANSMITTER				
	VHF	UHF BAND 1	UHF BAND 2	300 MHz
Frequency Range	136-174 MHz	400-470 MHz	450-512 MHz	350-400 MHz
RF Output Power	1-50 W			
Max Duty Cycle	100%			
Channel Spacing	12.5 kHz / 25 kHz			
Frequency Stability	0,5 ppm			
Intermodulation Attenuation	40 dB			
Adjacent Channel Power (TIA603E) 25/12.5 KHz	78/62 dB			
Adjacent Channel Power (ETSI) 25/12.5 KHz	78/62 dB			
Conducted Spurious Emissions	-36 dBm < 1 GHz, -30 dBm > 1 GHz			
Modulation Fidelity (4FSK)	FSK Error 5%, FSK Magnitude 1%			
Audio Response	TIA603E			
Audio Distortion	< 1%			
Hum and Noise (12.5 kHz/25 kHz)	-45/-50 dB			
Modulation Limitation	±2.5 / ±5.0 kHz			
Digital Protocol	ETSI-TS102 361-1/2/3			
Digital Vocoder Type	AMBE+2™			

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

Availability is subject to individual country law and regulations.
All specifications shown are typical unless otherwise stated and are subject to change without notice.

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