



# DVR-LX P25 RACK-MOUNT REPEATER

## ELIMINATE COVERAGE GAPS WITH THE EASE OF AN RF BACKHAUL

Areas of reduced radio system coverage can exist due to terrain issues, lack of in-building coverage or the sub-optimal placement of fixed site infrastructure. In these scenarios a DVR-LX Rackmount Repeater can assist, keeping emergency responders connected.

The DVR-LX Rackmount Repeater with optional 50-watt power amplifier fills challenging coverage gaps. The rack-mountable tray fits in a standard 19" rack. It seamlessly integrates with Motorola Solutions APX™ mobile radios to provide a reliable RF backhaul.

### KEY FEATURES AND BENEFITS

- Programmable output power: 1-10 W or optional 50 W power amplifier
- Available in VHF, UHF and 800 MHz bands
- Authentication (optional)
- Alarms (optional)
- P25 digital / analog operation
- Full duplex or simplex operation
- In-band or cross-band configurations
- Transparent P25 encryption pass-through
- Integrates with O2 Control Head and APX mobile radio
- Remote updates via APX Radio Management (optional)
- Extends key P25 trunking features to 'DVRS Enabled' portable key P25 radios including APX 6000, APX 8000 and APX NEXT® radios.
  - Portable push-to-talk and emergency ID pass-through
  - Go ahead and deny tones
  - Out-of-range and fall-back tones
- Includes DVR-LX platform
- Fits into standard 19" rack
- Requires 13.8V +/- 20-% DC Power (customer supplied)
- Sold exclusively through Motorola Solutions

## GENERAL SPECIFICATIONS

Dimensions: Height / Width / Depth

- Low-Profile 10 1/2" x 19" x 15 3/4" (267 mm x 483mm x 400 mm)
- High-Profile 17 1/2" x 19" x 15 3/4" (445 mm x 483mm x 400 mm)

Approximate Weight (does not include mobile radio)

- Low Profile (Cross-Band & No Power Amplifier) 26 lbs (11.8 kg)
- High Profile (In-Band &/or Power Amplifier) 43 lbs (19.5 kg)

Channel Spacing 12.5 or 25 kHz programmable

Number of Channels 192

CTCSS/DCS Programmable per Channel

Power Supply 13.8V DC  $\pm$  20%

DC Current Drain

- Standby/Receive 1.9 A
- Transmit (Standard) 14.5 A
- Transmit (with optional 50 W Power Amplifier) 25 A

Operating Temperature -30°C to +60°C

Antenna Impedance 50 Ohms

Duty Cycle Continuous (DVR)

External Connectors

- Antenna (DVR and Mobile) N Female
- Computer Interface USB



Low Profile Model shown

## EQUIPMENT TYPE ACCEPTANCE

	VHF	UHF	800 MHz
FCC	136-174 MHz L06-DVRSVHF	380-406 MHz 406.1-512 MHz L06-DVRSUHF	806-824 MHz 851-869 MHz L06-DVRS800
Industry Canada <sup>1</sup>	138-174 MHz 2098B-DVRSVHF	406.1-430 MHz 450-470 MHz 2098B-DVRSUHF	806-824 MHz 851-869 MHz 2098B-DVRS800

## TRANSMITTER SPECIFICATIONS

	VHF	UHF	800 MHz
Frequency Band [MHz]	136-174	380-430 450-470	851-869
Power Output @ Antenna Port	10 W (programmable per channel from 1 W to 10 W) 50 W		
• Transmit (Standard) <sup>2</sup>			
• Transmit (with optional 50 Power Amplifier)			
CCT Option	15 sec to 15 min or Disabled		
Max Spurious Output	-20 dBm		
Frequency Stability (-30 °C to +50 °C; +25 °C Ref.)	$\pm$ 1.5 ppm		
FM Hum and Noise 12.5 / 25 kHz	-37 dB / -43 dB		
Audio Response	+1, -3 dB of 6 dB / octave pre-emphasis characteristic over 300 Hz – 3 kHz		
Audio Distortion	<2%		

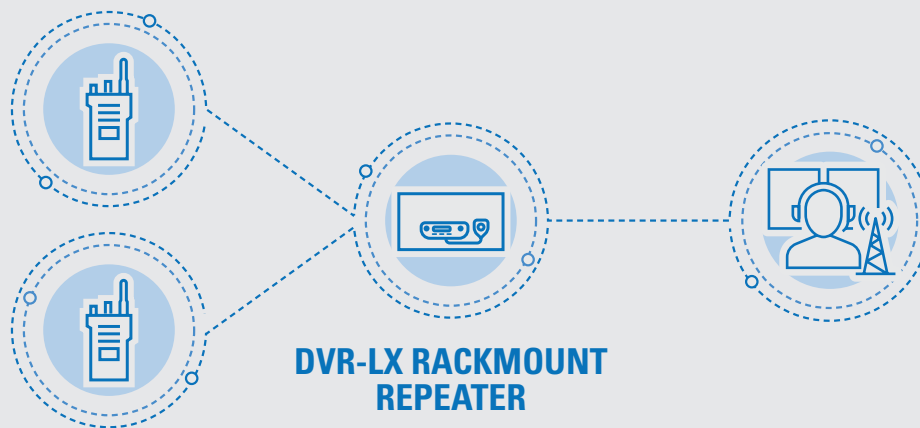
RECEIVER SPECIFICATIONS			
	VHF	UHF	800 MHz
Frequency Band [MHz]	136-174	380-430 450-470	806-824
Receiver Sensitivity (simplex/duplex)			
• Analog 12 dB SINAD		-115 dBm	
• Digital P25 5% BER		-115 dBm	
Frequency Stability (-30 °C to +60 °C; +25 °C Ref.)		±1.5 ppm	
Selectivity 12.5 / 25 kHz		-60 dB / -75 dB	
Intermodulation		-70 dB	
Deviation 12.5 / 25 kHz		±2.5 kHz / ±5 kHz	
FM Hum and Noise 12.5 / 25 kHz		-37 dB / -43 dB	
Audio Output (Repeater Detect Audio)		600 mV RMS nominal, flat response	
Audio Response		+1, -3 dB of 6 dB / octave de-emphasis characteristic over 300 Hz – 3 kHz	
Audio Distortion		<2%	

Note: Specifications subject to change without notice.

<sup>1</sup> Optional 50 W power amplifier not available in UHF and 800 MHz in Canada

<sup>2</sup> Power Output values reflect results at nominal conditions and do not include duplexer losses.





## USE CASES

### HOSPITALS AND SCHOOLS

With multiple layers of walls to penetrate, hospitals, schools and other large building complexes often lack reliable P25 radio coverage throughout. The DVR-LX Rackmount Repeater can boost P25 radio signals deep inside buildings where reliable communication is not otherwise available.

### TUNNELS

Underground road and subway tunnels can be particularly difficult to provide radio coverage. The DVR-LX Rackmount Repeater can boost P25 radio signals and transmit them deeper into tunnels for more reliable communication.

### MILITARY BASES

Sprawling bases and campuses need reliable radio communication everywhere, in-building and over wide outdoor areas. Installing the DVR-LX Rackmount Repeater in areas of weak RF coverage can improve communication reliability.

### OUTDOOR RF COVERAGE HOLES

Radio towers generally provide strong RF signals throughout its designed coverage area. But terrain, buildings and dense vegetation can create pockets of poor coverage. The DVR-LX Rackmount Repeater can provide a cost effective method to fill in coverage holes and deliver reliable communication.



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. [motorolasolutions.com](http://motorolasolutions.com)

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