

DVR-LX P25 rackmount 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 and UHF 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 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)

GENERAL SPECIFICATIONS	
Dimensions: Height / Width / Depth	Low-Profile: 10 1/2" x 19" x 15 3/4" (267 mm x 483mm x 400 mm) <hr/> 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) <hr/> High Profile (In-Band &/or Power Amplifier): 43 lbs (19.5 kg)
Channel Spacing	12.5 or 25 kHz programmable
Number of Channels	192
Number of MSU Entries (Zone + Channel)	2047
CTCSS/DCS	Programmable per Channel
Power Supply	13.8V DC ± 20%

GENERAL SPECIFICATIONS	
DC Current Drain	Standby/Receive: 1.9 A Max <hr/> Transmit (Standard): LP 14.5 A MAX @ 10 W RF output at antenna port MP 21.0 A MAX @ 10 W RF output at antenna port HP - Not supported <hr/> Transmit (with optional 50 W Power Amplifier): 25 A Max
Operating Temperature	-30°C to +60°C
Antenna Impedance	50 Ohms
Duty Cycle	Continuous (DVR)
External Connectors	Antenna (DVR and Mobile): N Female <hr/> Computer Interface: USB

EQUIPMENT TYPE ACCEPTANCE		
	VHF	UHF
FCC	136-174 MHz L06-DVRSVHF	380-406 MHz 406.1-512 MHz L06-DVRSUHF
Industry Canada ¹	138-174 MHz 2098B-DVRSVHF	406.1-430 MHz 450-470 MHz 2098B-DVRSUHF

TRANSMITTER SPECIFICATIONS		
	VHF	UHF
Frequency Band [MHz]	136-174	380-430 450-470
Power Output @ Antenna Port (does not include duplexer losses)	Transmit (Standard): 10 W (programmable per channel from 1 W to 10 W) <hr/> Transmit (Optional)¹: 50 W	
Max Spurious Output	-20 dBm	
Frequency Stability (-30 °C to +50 °C; +25 °C Ref.)	±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%	

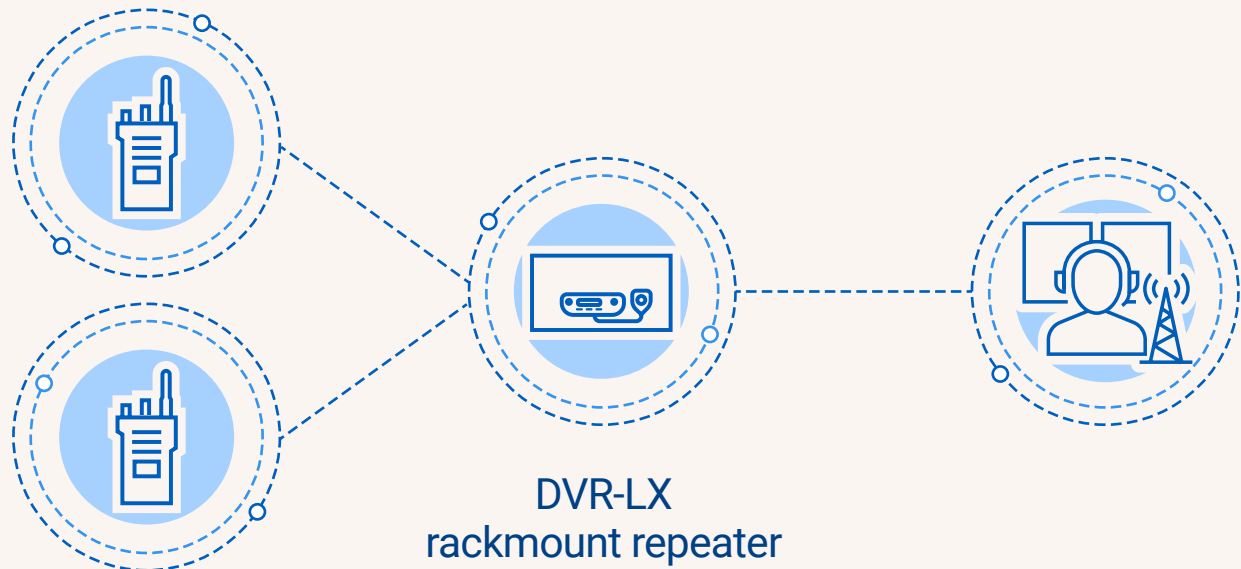


RECEIVER SPECIFICATIONS		
	VHF	UHF
Frequency Band [MHz]	136-174	380-430 450-470
Receiver Sensitivity (simplex/duplex)		
Analog 12 dB SINAD		-115 dBm
Digital P25 5% BER		-115 dBm
Frequency Stability (-30 °C to +50 °C; +25 °C Ref.)		±1.5 ppm
Selectivity 12.5 / 25 kHz		-60 dB / -75 dB
Intermodulation		-70 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 are typical, measured under nominal conditions and are subject to change without notice.

¹ Optional 50 W power amplifier in UHF is not available in Canada





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.

To learn more, visit: motorolasolutions.com/dvr-lx



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