



DVR-LX P25 DIGITAL VEHICULAR REPEATER

THE SAFETY OF CONVENTIONAL WITH THE FEATURES OF TRUNKING

Whether in a deep valley or deep in a building, poor radio coverage puts the safety of first responders at risk. Police and fire personnel need to be able to communicate with dispatch and each other; however, many radio systems are not designed to provide service everywhere public safety professionals are called to respond.

The DVR-LX integrates with the APX™ series mobile radio to function as compact 10-Watt vehicle repeater installed in the back of a patrol car or fire apparatus. The higher power APX mobile radio extends the range of the portable radio back to dispatch. The APX mobile radio control head is in the front of the vehicle and controls the DVR-LX.

KEY FEATURES AND BENEFITS

- Programmable output power: 1-10 W
- Full duplex or simplex operation
- Fully backwards compatible with Digital Vehicular Repeater (DVR)
- Authentication (optional)
- Various Label locations
- Dedicated handles
- P25 digital / analog operation
- Available in VHF, UHF, 700 MHz and 800 MHz bands
- In-band or cross-band configurations
- Integrates with APX mobile radios
- Operated through mobile radio control head
- Transparent P25 encryption pass-through
- Superior multi-unit operation
- Extends key P25 trunking features to 'DVRS Enabled' portable radios including APX6000, 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
- Sold exclusively through Motorola Solutions

DIMENSIONS

LENGTH X WIDTH X HEIGHT, WEIGHT

	DVR and Duplexer Housing 270.6 mm x 186.0 mm x 156.0 mm, 7.92 Kg (17.46 lbs)
In-Band, Full Duplex / Simplex, VHF, UHF, 700 MHz, 800 MHz	Filter Housing – 700/800 MHz 315.00 mm x 186.0 mm x 77.1 mm
	Filter Housing – VHF/UHF 315.00 mm x 186.0 mm x 155.5 mm
Cross-Band, Simplex, VHF, UHF, 700 MHz, 800 MHz	270.6 mm x 186.0 mm x 94.5 mm, 5.13 Kg (11.31 lbs)
Cross-Band, Full Duplex, VHF, UHF, 700 MHz, 800 MHz	270.6 mm x 186.0 mm x 156.0 mm, 7.92 Kg (17.46 lbs)



GENERAL SPECIFICATIONS

Channel Spacing	12.5 or 25 kHz programmable (25 kHz operation not available in USA)
Number of Channels	192
CTCSS/DCS	Programmable per channel
Power Supply	13.8 V DC
DC Current Drain (DVR Only):	DVR Off: 0.01 A max DVR Standby: 0.8 A max DVR Receive: 0.8 A max DVR Transmit: 6.0 A max at 20 W RF output at PA Output
Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Storage Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Water and Dust Intrusion	IP54
Antenna Impedance	50 ohms
External Connectors	Antenna: Mini UHF Computer Interface: USB Mobile Radio: 20 pin male circular Auxiliary Connector: 9 pin male circular DC Power: 6 pin male circular

TYPE ACCEPTANCE

EQUIPMENT TYPE ACCEPTANCE	VHF	UHF	700 MHz	800 MHz
FCC	136-174 MHz L06-DVRSVHF	380-406 MHz 406.1-512 MHz L06-DVRSUHF	764-776 MHz 794-806 MHz L06-DVRS700	806-824 MHz 851-869 MHz L06-DVRS800
Industry Canada	138-174 MHz 2098B-DVRSVHF	406.1-430 MHz 450-470 MHz 2098B-DVRSUHF	768-776 MHz 798-806 MHz 2098B-DVRS700	806-824 MHz 851-869 MHz 2098B-DVRS800
Safety	EN60950-1	EN60950-1	EN60950-1	EN60950-1

TRANSMITTER SPECIFICATIONS

	VHF	UHF	700 MHz	800 MHz
Frequency Band	136-174 MHz	380-430 MHz 450-470 MHz	764-776 MHz	851-869 MHz
Power Output @ Antenna Port ¹	10 W (programmable per channel from 1 W to 10 W)			
Duty Cycle	50% Receive / 50% Transmit			
CTC Option	15 sec to 15 min or Disabled			
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 to 3 kHz			
Audio Distortion	<2%			

¹ Power Output values reflect results at nominal conditions and do not include duplexer losses.

RECEIVER SPECIFICATIONS

	VHF	UHF	700 MHz	800 MHz
Frequency Band	136-174 MHz	380-430 MHz 450-470 MHz	794-806 MHz 764-776 MHz	806-824 MHz 851-869 MHz
Receiver Sensitivity (simplex/duplex) Analog 12 dB SINAD Digital P25 5% BER			-115 dBm -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 to 3 kHz	
Audio Distortion			<2%	

MIL-STD SPECIFICATIONS

MILITARY STANDARDS COMPLIANCE	MIL-STD
High Temperature	810G Section 501.5
Low Temperature	810G Section 502.5
Temperature Shock	810G Section 503.5
Rain	810G Section 506.6
Humidity	810G Section 507.5
Salt Fog	810G Section 509.7
Vibration	810G Section 514.6
Mechanical Shock	810G Section 516.6

Note: Specifications subject to change without notice.



USE CASES

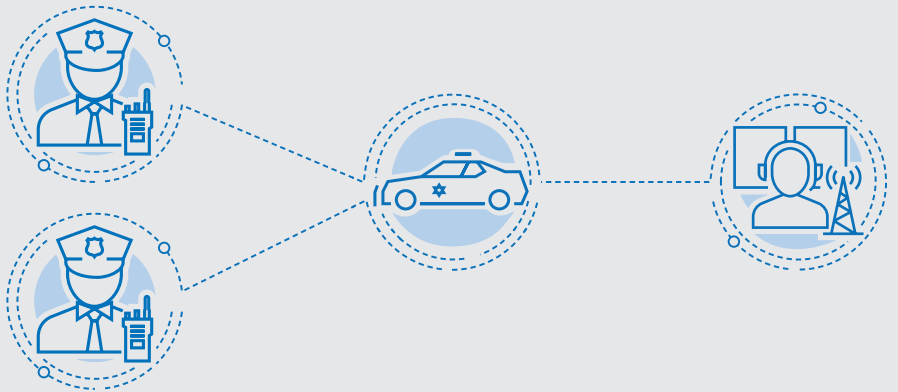
BUILDING PENETRATION

Thick concrete can provide challenges for in-building radio communication. The APX mobile radio and the DVR-LX penetrates deeper into buildings. Firefighters can then simply reach the DVR-LX through their portable radio to communicate back to dispatch.



PORTABLE COVERAGE EXTENSION

High-powered mobile radios and a roof mounted antenna provide longer range than portable radios. The APX mobile and the DVR-LX extends the range of portable radios. Officers outside their patrol car can simply reach DVR-LX through their portable radio to communicate back to dispatch.



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