



P25 DIGITAL VEHICULAR REPEATER SYSTEM

FIELD-PROVEN BY THE LARGEST LAW ENFORCEMENT AGENCIES IN NORTH AMERICA

Police officers need to reliably communicate with dispatch and each other. Whether it's handling a traffic stop or apprehending a fugitive, they need to have peace of mind that communications will be there when they step out of their vehicle. Networks designed specifically for mobile radio coverage can make communications challenging for portable radio users. The Futurecom P25 Digital Vehicular Repeater System (DVRS) is an ideal solution that helps keep police officers connected.

The P25 DVRS is a small, rugged, self-contained, 10 W radio base station integrated with Motorola Solutions remote-mount APX™ mobile radios. It improves radio coverage for police officers by using the higher power of the mobile radio in the vehicle to extend the range of the portable back to the radio system. The P25 DVRS is installed in the back of a police vehicle and operated via the mobile radio control head in the cockpit.

KEY FEATURES AND BENEFITS

- Programmable output power: 1-10 W
- Full duplex or simplex operation.
- P25 Digital / Analog operation.
- Available in VHF, UHF, 700 MHz and 800 MHz bands.
- In-Band or Cross-Band configurations.
- Integrates with remote mount APX 8500, APX 7500, APX 6500 and APX 5500 mobile radios.
- Operated through mobile radio control head.
- Transparent P25 encryption pass-through.
- Superior multi-unit operation.
- Extends key P25 trunking features onto conventional simplex or duplex channel.
- Sold exclusively through Motorola Solutions

DIMENSIONS

HEIGHT x WIDTH x DEPTH, WEIGHT

In-Band, Full Duplex / Simplex, 700 and 800 MHz	DVR and Duplexer Housing: 185 x 185 x 315 mm (7.3 x 7.3 x 12.4 in) Filter Housing: 110 x 185 x 315 mm (4.3 x 7.3 x 12.4 in) 17.4 kg (38.4 lb)
In-Band, Full Duplex / Simplex, VHF and UHF	DVR and Duplexer Housing: 185 x 185 x 315 mm (7.3 x 7.3 x 12.4 in) Filter Housing: 185 x 185 x 315 mm (7.3 x 7.3 x 12.4 in) VHF: 22.3 kg (49.1 lb) UHF: 22.1 kg (48.7 lb)
Cross-Band, Simplex, VHF, UHF, 700 MHz, 800 MHz	95 x 225 x 315 mm (3.7 x 8.8 x 12.4 in) 5.3 kg (11.6 lb)
Cross-Band, Full Duplex, VHF, UHF, 700 MHz, 800 MHz	185 x 185 x 315 mm (7.3 x 7.3 x 12.4 in) VHF: 10.7 kg (23.6 lb) UHF: 10.2 kg (22.5 lb) 700/800 MHz: 10.4 kg (22.9 lb)



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 \pm 20%, negative ground only
DC Current Drain (DVR Only):	DVR Off: 0.01 A max DVR Standby: 0.8 A max DVR Receive: 1.7 A @ 7.5 W Audio, 13.8 V DC Transmit 6.0 A Max @ 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: Mobile Radio: 20 pin male circular: RS232: 115 kbps max., \pm 3 V min input; 5k ohm input / 300 ohm output impedance Analog audio ports: 200 ohm input / 15 ohm output impedance
	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-DVRS VHF	406.1-430 MHz 450-470 MHz 2098B-DVRS UHF	768-776 MHz 798-806 MHz 2098B-DVRS 700	806-824 MHz 851-869 MHz 2098B-DVRS 800
Safety	EN60950-1	EN60950-1	EN60950-1	EN60950-1

TRANSMITTER SPECIFICATIONS

	VHF	UHF	700 MHz	800 MHz
Frequency Band [MHz]	136-174 MHz	380-430 MHz 450-470 MHz	764-776 MHz	851-869 MHz
Power Output @ Antenna ¹	10 W (programmable per channel from 1 W to 10 W)			
CTC 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 to 3 kHz			
Audio Distortion	<2%			

1. Values reflect results at nominal conditions and do not include duplexer losses.

PRODUCT DATA SHEET

P25 DIGITAL VEHICULAR REPEATER SYSTEM FOR POLICE

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 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%	

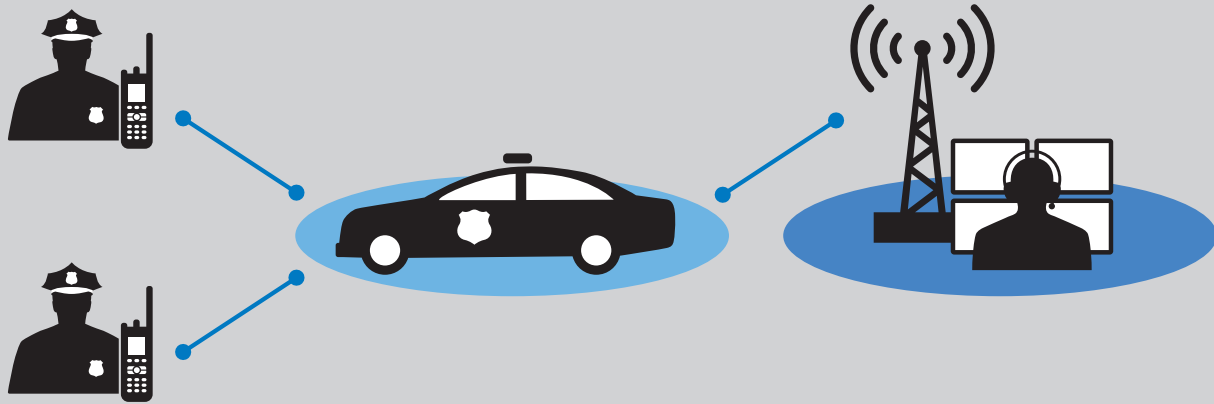
MIL-STD SPECIFICATIONS

MILITARY STANDARDS COMPLIANCE	MIL-STD-810G
High Temperature	501.5
Low Temperature	502.5
Temperature Shock	503.5
Rain	506.5
Humidity	507.5
Salt Fog	509.5
Vibration	514.6
Mechanical Shock	516.6

Note: DVRS also available in suitcase and cabinet-mount versions.
Specifications subject to change without notice.



P25 DVRS-equipped vehicle extends portable radio communications



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