



P25 DIGITAL VEHICULAR REPEATER SYSTEM

FIELD-PROVEN BY HUNDREDS OF FIRE DEPARTMENTS

Firefighters need to reliably communicate with each other and be monitored and recorded by dispatch. However, dense structures, working below grade, or terrain can make communicating with fire teams challenging. The Futurecom P25 Digital Vehicular Repeater System (DVRS) is an ideal solution to keep firefighters connected.

The P25 DVRS is a small, rugged, self-contained, 10 W radio base station integrated with Motorola remote-mount APX™ mobile radios. It improves portable radio coverage for firefighters while keeping them connected to the network. The P25 DVRS is installed in a fire truck, battalion chief's vehicle or other fire apparatus.

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.
- 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)



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 at 7.5 W Audio, 13.8 V DC 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: RS232: 115 kbps max., \pm 3V min. input; 5k ohm input / 300 ohm output impedance Analog audio ports: 200k ohm input / 15 ohm 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-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	10 W (programmable per channel from 1-10 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.)	±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%			

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

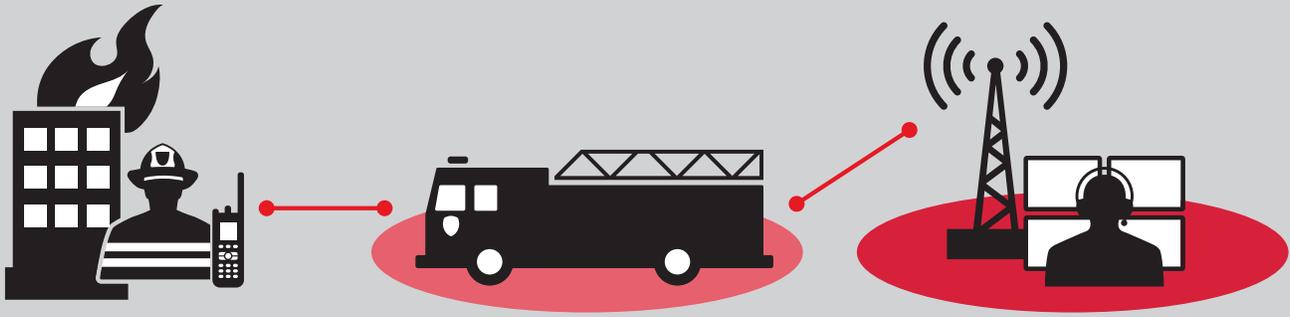
MILITARY STANDARDS COMPLIANCE	MIL-STD-810G
High Temperature	501.5
Low Temperature	502.5
Temperature Shock	503.5
Rain	506.5
Humidity	507.5
Salt Fog	509.5
Vibration	514.6
Mechanical Shock	516.6

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

PRODUCT DATA SHEET

P25 DIGITAL VEHICULAR REPEATER SYSTEMS FOR FIRE

P25 DVRS-equipped vehicle extends portable radio coverage on the fireground



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