

P25 DIGITAL VEHICULAR REPEATER SYSTEM



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, 10W radio base station integrated with Motorola remote mount APX™ or XTL™ series 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 & Benefits

- Programmable output power: 1-10 watts.
- 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™5500, APX™6500 and APX™7500 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.

Field proven by hundreds of fire departments around the world.



GENERAL SPECIFICATIONS



Dimensions: Height / Width / Depth / Weight

In-Band, Full Duplex / Simplex, 700 & 800MHz

DVR & Duplexer Housing:

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

Filter Housing:

108.9 mm (4.3") x 186 mm (7.3") x 315 mm (12.4")

38.4 lbs (17.4 Kg)

In-Band, Full Duplex / Simplex, VHF & UHF

DVR & Duplexer Housing:

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

Filter Housing:

187.2 mm (7.4") x 186 mm (7.3") x 315 mm (12.4")

VHF – 49.1 lbs (22.3 Kg)

UHF – 48.7 lbs (22.1 Kg)

Cross-Band, Simplex, VHF, UHF, 700MHz, 800MHz

95 mm (3.7") x 222.9 mm (8.8") x 315mm (12.4")

11.6 lbs (5.3 Kg)

Cross-Band, Full Duplex, VHF, UHF, 700MHz, 800MHz

185.2 mm (7.3") x 186 mm (7.3") x 315 mm (12.4")

VHF – 23.6 lbs (10.7 Kg)

UHF 22.5 lbs (10.2 Kg)

700/800 MHz – 22.9 lbs (10.4 Kg)

Channel Spacing

12.5 or 25 kHz programmable

Number of Channels

192

CTCSS / DCS

Programmable per channel

Power Supply

13.8V DC +/- 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 @ 7.5W Audio, 13.8V DC

Transmit

6.0 A Max @ 20W RF output at PA Output

Operating Temperature

-30°C to +60°C

Storage Temperature

-40°C to +85°C

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., +/- 3V min.

input; 5 kOhm input / 300 Ohm output impedance

Analog audio ports: 200 kOhm input / 15 Ohm output impedance

DC Power

6 pin male circular



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Tel. 1-800-701-9180 or (905) 660-5548, Fax (905) 660-6858

GENERAL SPECIFICATIONS



Equipment Type Acceptance	VHF	UHF	700 MHz	800 MHz
FCC	136 – 174 MHz LO6-DVRSVHF	380-406 MHz 406.1-512 MHz LO6-DVRSUHF	764-776 MHz 794-806 MHz LO6-DVRS700	806-824 MHz 851-869 MHz LO6-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 [MHz]	136 – 174 MHz	380-430 MHz 450-470 MHz 470-512 MHz	764-776 MHz	851-869 MHz
Power Output @ Antenna Port	10 W (programmable per channel from 1W to 10W)			
CTC Option	15 sec to 15 min or Disabled			
Max Spurious Output	-20dBm			
Frequency Stability (-30°C to +60°C; +25°C Ref.)	+/- 1.5ppm			
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	700 MHz	800 MHz
Frequency Band [MHz]	136 – 174 MHz	380-430 MHz 450-470 MHz 470-512 MHz	794-806 MHz 764-776 MHz	806-824 MHz 851-869 MHz
Receiver Sensitivity	-115 dBm			
Analog 12 dB SINAD	-115 dBm			
Digital P25 5% BER	-115 dBm			
Frequency Stability (-30°C to +60°C; +25°C Ref.)	+/- 1.5ppm			
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%			



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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 are also available in transportable and fixed wall mount versions.
Specifications subject to change without notice.*



3277 Langstaff Road, Concord, ON Canada L4K 5P8
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