P25 DIGITAL VEHICULAR REPEATER SYSTEM

Police Officers need to reliably communicate with dispatch and each other. Whether it’s handling a traffic stop or apprehending a fugitive, officers 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, terrain, or being inside a building 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, 10W radio base station integrated with Motorola remote mount APX™ or XTL™ series 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 & 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.
- 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.

Field proven by many of the largest federal, state and provincial law enforcement agencies in North America.
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)

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

Cross-Band, Simplex, VHF, UHF, 700MHz, 800MHz
95 mm (3.7”) x 222.9 mm (8.8”) x 315mm (12.4”)
11.8 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)

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
# GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Equipment Type Acceptance</th>
<th>VHF</th>
<th>UHF</th>
<th>700 MHz</th>
<th>800 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCC</td>
<td>LO6-DVRSVHF</td>
<td>LO6-DVRSUHF</td>
<td>LO6-DVRS700</td>
<td>LO6-DVRS800</td>
</tr>
<tr>
<td>Industry Canada</td>
<td>138 – 174 MHz</td>
<td>406.1-430 MHz</td>
<td>768-776 MHz</td>
<td>806-824 MHz</td>
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<tr>
<td></td>
<td>2098B-DVRSVHF</td>
<td>450-470 MHz</td>
<td>798-806 MHz</td>
<td>851-869 MHz</td>
</tr>
<tr>
<td>Safety</td>
<td>EN60950-1</td>
<td>EN60950-1</td>
<td>EN60950-1</td>
<td>EN60950-1</td>
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</table>

## Transmitter Specifications

<table>
<thead>
<tr>
<th>VHF</th>
<th>UHF</th>
<th>700 MHz</th>
<th>800 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Band [MHz]</td>
<td>136 – 174 MHz</td>
<td>380-430 MHz</td>
<td>764-776 MHz</td>
</tr>
</tbody>
</table>

- **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**: +/- 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

<table>
<thead>
<tr>
<th>VHF</th>
<th>UHF</th>
<th>700 MHz</th>
<th>800 MHz</th>
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</thead>
<tbody>
<tr>
<td>Frequency Band [MHz]</td>
<td>136 – 174 MHz</td>
<td>380-430 MHz</td>
<td>794-806 MHz</td>
</tr>
</tbody>
</table>

- **Receiver Sensitivity**: -115 dBm
- **Analog 12 dB SINAD**: -115 dBm
- **Frequency Stability**: +/- 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%
GENERAL SPECIFICATIONS

MILITARY STANDARDS COMPLIANCE

<table>
<thead>
<tr>
<th>Specification</th>
<th>MIL-STD-810G</th>
</tr>
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<tbody>
<tr>
<td>High Temperature</td>
<td>501.5</td>
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<tr>
<td>Low Temperature</td>
<td>502.5</td>
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<tr>
<td>Temperature Shock</td>
<td>503.5</td>
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<tr>
<td>Rain</td>
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<tr>
<td>Humidity</td>
<td>507.5</td>
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<tr>
<td>Salt Fog</td>
<td>509.5</td>
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<tr>
<td>Vibration</td>
<td>514.6</td>
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<tr>
<td>Mechanical Shock</td>
<td>516.6</td>
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</tbody>
</table>

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