



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 ¹ | 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% | | | |

1. 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 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

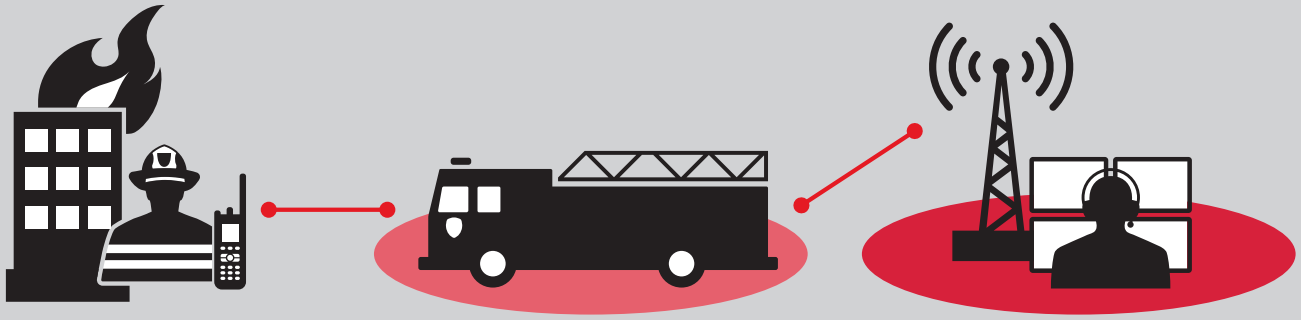
| MILITARY STANDARDS COMPLIANCE | MIL-STD-810G |
|-------------------------------|--------------|
| High Temperature | 501.5 |
| Low Temperature | 502.5 |
| Temperature Shock | 503.5 |
| Rain | 506.5 |
| Humidity | 507.5 |
| Salt Fog | 509.5 |
| Vibration | 514.6 |
| Mechanical Shock | 516.6 |

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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