



GUARDIAN G25RMV110-5

5W Low Profile Mobile Radio



Project 25 Compliant

Government • Military • Public Safety • Business

GUARDIAN™

BY DATRON

THE VITAL CONNECTION



DTMF
Palm microphone

Easy Grip Knobs
Large rotary knobs make volume adjustment and channel selection easy

Large Diameter Speaker
High-output loudspeaker to override industrial, highway and siren noise

Tx/Rx Indicator

High Resolution Display
High-output display can be read easily in tactical situations and blacked-out during covert operations

Programming Keys
Simple to customize - three keys and toggle switch

Software Defined Keys

Ext/Both/Int Speaker Switch & Indicator

The Guardian G25RMV110-5 VHF P25 radio system is a compact 5 watt mobile radio designed for government, public safety, and business applications. The radio is fully digital and meets APCO Project 25 FDMA common air interface (CAI) standards for compatibility with other Project 25 radios. The G25RMV110-5 also operates as an analog radio, offering full backward compatibility with conventional wideband FM systems.

The G25RMV110-5 is packaged in a small, low profile enclosure designed for convenient mounting under the dashboard of a vehicle. It contains a high-output speaker and high resolution LCD display that can be easily read in tactical situations and blacked-out during covert operations.

Standard transmission security is provided by DES wideband encryption, while digital encryption (OFB DES) and over-the-air-rekeying (OTAR) are optional features.

- **Compact, Lightweight 5W Radio** for convenient vehicle mounting
- **Multi-Mode** analog and digital, wideband and narrowband, up to 4 banks, 16 zones, and 256 total channels
- **Full VHF Bandwidth**, 136-174 MHz inclusive
- **Shadow Channels** allow communication using any mode – wide or narrowband, analog or digital, crypto or plain
- **Secure Transmissions** – SBCF DES wideband analog encryption is standard, digital encryption is optional

DATRON

Datron World Communications, Inc

Contact us today: 760.597.1500
3030 Enterprise Ct. Vista, CA 92083
www.dtwc.com • guardian@dtwc.com

GUARDIAN G25RMV110-5

5W Low Profile Mobile Radio

| MODEL DESIGNATION | Guardian 5W Mobile Radio |
|-------------------------------|---|
| Datron Model Number | G25RMV110-5 |
| Included Equipment | Radio, dc power cable, mounting bracket, operator's manual, quick reference guide |
| Frequency Range | 136.000 – 174.000 MHz |
| Banks, Zones, Channel, Shadow | 4 banks, 16 zones, 256 channels, 7 shadow |
| Voice Digital | |
| • Mode Voice coding | IMBETM 4.4 kb |
| • Frame Re-sync interval | 180 msec |
| • Error Correction method | RS, Golay, Hamming |
| Input voltage | 13.8 Vdc, negative chassis ground |
| Power consumption | |
| • Standby | 0.5A |
| • Receive @ rated audio | 3A |
| • Transmit @ rated power | 5A |
| Display | High-output LCD |
| Antenna Port | BNC for 50 ohm antennas |
| Channel spacing | 12.5 and 25 kHz, selectable in 2.5 or 3.125 kHz steps |
| FCC Type Acceptance Number | B3TG25RMV110, parts 74, 80, 90, 210 |
| Industry Canada | 4340A – G25RMV110 |

RECEIVER (MEASUREMENTS PER TIA/EIA 603 STANDARDS)

| | |
|-------------------------------------|---|
| Sensitivity | -116 dBm or greater |
| • Digital Mode, 5% BER | |
| • Analog mode, 12 dB SINAD | |
| Spurious | -70 dB |
| Intermodulation | -70 dB |
| Audio Output Power | 5 Watts, internal; up to 15 Watts, external speaker |
| Audio distortion (at 1000Hz) | 3% |
| Frequency stability (-30 to + 60°C) | +/- 1 ppm |
| Maximum frequency separation | Full band split |

TRANSMITTER (MEASUREMENTS PER TIA/EIA 603 STANDARDS)

| | |
|-------------------------------------|---------------------------|
| RF Power Output | 5 watts |
| Spurious and harmonic emissions | -70 dB |
| FM hum and noise (wide/narrowband) | -48/-47 dB, typical |
| FCC Modulation designators | 11K0F3E, 16K0F3E, 12K6F3E |
| Frequency stability (-30 to + 60°C) | +/- 2.5 ppm |
| Audio distortion (at 1000Hz) | 2% |
| Maximum frequency separation | Full bandwidth |

GUARDIAN DES ENCRYPTION

| | |
|----------------------------|------------------|
| Encryption Keys | 16 |
| Code key generator | External |
| SBCF Analog DES Encryption | Standard feature |
| OFB DES Digital Encryption | Optional |
| OTAR | Optional |

MECHANICAL / ENVIRONMENTAL

| | |
|---|-------------------------|
| Mounting | Under vehicle dashboard |
| Dimensions | 7"W x 2.7"D x 2.7"H |
| Weight | 1.8 lbs. |
| Temperature Range | -30 to +60°C |
| Shock, vibration, humidity, fungus, sand & dust, salt fog, altitude | Per MIL-STD-810F |

GUARDIAN ACCESSORIES

| | |
|------------------|-----------------|
| Microphone | Palm, DTMF palm |
| External speaker | Up to 15 watts |

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