



# GUARDIAN G25RMV110-5

## 5W Low Profile Mobile Radio



# GUARDIAN™

THE VITAL CONNECTION

## Project 25 Compliant

Government ▪ Military ▪ Public Safety ▪ Business

**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 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. Guardian also operates as an analog radio, offering full backwards compatibility with conventional wideband and narrowband FM systems.

The G25RMV110-5 is packaged in a small, low profile enclosure designed for convenient mounting under the dashboard of 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.

- **Multi-Mode** analog and digital, wideband and narrowband, up to 4 banks, 16 zones and 256 channels total (314 channel optional)
- **Shadow Channels** allow communication using any mode - wide or narrowband, analog or digital, crypto or plain
- **Full VHF Bandspread** 136-174 MHz
- **Cloning** radio-to-radio programming
- **Secure Transmissions** Analog, OFB DES, and AES Encryption options
- **OTAR** Over the Air Re-Key
- **GPS/Data** Send GPS coordinates using Datron's optional GPS Microphone



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## GUARDIAN G25RMV110-5 5W Low Profile Mobile Radio



### MODEL DESIGNATION

		<b>GUARDIAN 5W MOBILE RADIO</b>
Datron Model Number		G25RMV110-5
Frequency Range		136.000 -174.000 MHz
RF Power Output		0.1 to 5 watts in steps
Banks,Zones,Channels		4 banks,16 zones, 256 channels, 7 shadow
Voice Digital Mode	Voice Coding	IMBE™ 4.4 kb
Frame Re-sync Interval		180 msec
Error Correction Method		RS, golay, hamming
Input Voltage		7.5Vdc
Dimensions w/o antenna (HxWxD)		7.13 "x 2.43 "x 2.87 ", Circumference 6.97 "
Weight (with standard battery)		14.6 oz
Case		Black polycarbonate
Temperature Range		-30°C to +60°C
Channel Spacing		12.5 and 25 kHz, selectable in 2.5 or 3.125 kHz steps
FCC Type Acceptance Number		B3TG25RPV100, parts 74, 80, 90, 210
Industry Canada		4109196829A

### RECEIVER (MEASUREMENTS PER TIA/EIA 603C STANDARDS)

Sensitivity		
Digital Mode:	5%BER	-116 dBm or better
Analog Mode:	12 dB SINAD	-116 dBm or better
Spurious		-73.6 dB
Intermodulation		-79.0 dB
Audio Output Power		500 mW into 8 ohms
Audio Distortion (at 1000 Hz)		3% @ rated power
Maximum Frequency Separation		Full-band split
Spurious Response Attenuation		75dB
Adjacent Channel Selectivity		Analog 58dB, Digital 66.4dB
RX Conducted Spurious Emissions		-92.7dBm

### TRANSMITTER (MEASUREMENTS PER TIA/EIA 603C STANDARDS)

RF Power Output		0.1 /0.5 /1 /2 /5 watts channel selectable
FM Hum & Noise (wide/narrowband)		-40/34 dB
FCC Modulation Designators		11K0F3E, 16K0F3E, 12K6F1E
Audio Distortion (at 1000 Hz)		2%
Audio Response (1000 Hz Ref.)		± 3 dB 300 -3000 (EIA/TIA 603)
Frequency Stability (-30 °C to 60°C)		± 0.6 ppm
Maximum Frequency Separation		Full-band split
TX Unwanted Emissions (Conducted)		-91dB

### GUARDIAN DES ENCRYPTION

Encryption Keys		16
Code Key Generator		External
SBCF Analog DES Encryption		Standard feature
OFB Digital DES Encryption		Optional
AES Digital Encryption		Optional
OTAR		Optional

### ENVIRONMENTAL SPECIFICATIONS MIL-STD-810F

TEST	METHOD	PROCEDURE
Low Pressure (Altitude)	500.4	II
High Temperature	501.4	I, II
Low Temperature	502.4	I
Temperature Shock	503.4	I
Solar Radiation (Sunshine)	505.4	I
Rain	506.4	I
Humidity	507.4	I
Salt Fog	509.4	I
Sand and Dust	510.4	I, II
Vibration	514.5	I
Shock	516.5	

### OPTIONAL FEATURES:

#### Fire Features

Adds an additional bank of 3 zones (48 additional channels), Custom Clone, Tone Pick List, P-25 Talkgroup Picklist and P-25 ID Pick List

#### GPS

Send/Receive GPS coordinates to track personnel and assets. Standard NEMA string at 4800 baud compatible with standard mapping software and custom applications

#### OTAR

Over the Air Re-Key. Change encryption keys over the air without the need to connect to a computer or key fill device.

**AES** P-25 Advanced Encryption Standard

**DES** OFB- P-25 Digital Encryption Standard

### ACCESSORIES

#### Audio:

G25AMM001	PALM MICROPHONE STANDARD
G25AMM002	PALM MICROPHONE DTMF
G25AMM003	DESK MICROPHONE
G25AMS001	EXTERNAL SPEAKER UP TO 15W

#### Mounting:

G25AML002	BRACKET, MOBILE MOUNT, CONTROL HEAD
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#### Antennas:

G25AMA001	ANTENNA KIT, MOBILE, 136-144MHZ
G25AMA002	ANTENNA KIT, MOBILE, 144-152MHZ
G25AMA003	ANTENNA KIT, MOBILE, 152-162MHZ
G25AMA004	ANTENNA KIT, MOBILE, 162-172MHZ
G25AMA005	ANTENNA KIT, MOBILE, BROADBAND

#### Remote:

G25TRU001	4 WIRE TONE REMOTE UNIT
G25TRU002	TONE REMOTE LOCAL CONTROL
G25TRU003	TONE REMOTE PROGRAMMING KIT
G25TRU004	TONE REMOTE CONSOLE

Specifications subject to change without notice or obligation.