



# GUARDIAN G25RMV100 50W Mobile Radio



## GUARDIAN™ BY DATRON

THE VITAL CONNECTION

## Project 25 Compliant

Government • Military • Public Safety • Business



### High Resolution Display

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

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

**Tx/Rx Indicator**

### Easy Grip Knobs

Large rotary knobs make volume adjustment and channel selection easy

### Programming Keys

Simple to customize - three keys and toggle switch

### Software Defined Keys

**Ext/Both/Int Speaker Switch & Indicator**

The Guardian G25RMV100 VHF P25 conventional mobile by Datron is a feature rich, state-of-the-art radio designed for government, public safety and business applications. Fully digital, Guardian meets APCO Project 25 FDMA common air interface standard for compatibility with other Project 25 radios. Guardian also operates as an analog radio, offering full backward compatibility with conventional wideband FM systems. Use it with today's analog wideband radio systems and be ready for tomorrow's digital narrowband world — all in one great package!

- **Multi-Mode** analog and digital, wideband and narrowband, up to 4 banks, 16 zones, and 256 channels total
- **Full VHF Bandsread** 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 standard feature
- **Cloning Capability** for quick radio-to-radio programming
- **Low Power** surveillance mode for covert operations



Datron World Communications, Inc

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# GUARDIAN G25RMV100

## 50W Mobile Radio

MODEL DESIGNATION	GUARDIAN VHF MOBILE RADIO
Datron Model Number	G25RMV100
Frequency Range	136.000 –174.000 MHz
Banks,Zones,Channels,Shadow	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	13.8 Vdc, negative chassis ground
Current Drain @13.8V:	
Standby	0.5 amp
Receive @Rated Audio	3.0 amp
Transmit @Rated Power	14.0 amp
Mounting	Under dashboard using bracket
Dimensions (HxWxD)	2.94 "x 7.13" x 7.06"
Weight	Approximately 5 lbs.
Case	Metal and plastic
Temperature Range	-30°C to +60°C
Channel Spacing	12.5 and 25KHz, selectable in 2.5 or 3.125 KHz steps
FCC Type Acceptance Number	B3TG25RMV100, parts 74, 80, 90, 210
Industry Canada	41091-25RMV100

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

Sensitivity	
Digital Mode:	5%BER -116 dBm or better
Analog Mode:	12 dB SINAD -116 dBm or better
Spurious	-75 dB
Intermodulation	-75 dB
Audio Output Power	5 Watts internal, 10 Watts external speaker
Audio Distortion (at 1000 Hz)	5% @ rated power
Frequency Stability (-30°C to +60°C)	± 2.5 ppm
Maximum Frequency Separation	Full-band split

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

RF Power Output	10/20/35/50 watts, selectable: low power surveillance mode
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)	± 2.5 ppm
Maximum Frequency Separation	Full bandwidth

### GUARDIAN DES ENCRYPTION

Encryption Keys	16
Code Key Generator	External
SBCF Analog DES Encryption	Standard feature
OFB Digital DES 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
Humidity	507.4	I
Salt Fog	509.4	I
Sand and Dust	510.4	I, II
Vibration	514.5	I
Shock	516.5	I

### GUARDIAN ACCESSORIES

Palm Microphone	10 W External Speaker
Mounting Bracket	DTMF Microphone
14 ft. Power Cable	Key Variable Loader
25 ft. Power Cable	

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**GUARDIAN**™  
BY DATRON

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**DATRON**

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