

# GUARDIAN G25RMV110

## 110W Trunk Mount



# GUARDIAN™

THE VITAL CONNECTION

## Project 25 Compliant

Government ▪ Military ▪ Public Safety ▪ Business



**110 watt RF Remote Unit**

**High Resolution Display**

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

**Tx/Rx Indicator**

**Mounting Bracket with Security Lock**

**Heavy Duty Aluminum Tray**

**Easy Grip Knobs**

Large rotary knobs make volume adjustment and channel selection easy

**Programming Keys**

Simple to customize three keys

**Software Defined Keys**

**Large Diameter Speaker**

High-output loudspeaker to overcome ambient noise

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

The Guardian G25RMV110 VHF P25 trunk mount radio system is a high power, feature rich, state-of-the-art mobile radio designed for government, public safety, and business applications. It features a powerful 110 Watt power amplifier and a separate console containing the R/T unit for remote control of the entire radio system. The Guardian is fully digital and meets APCO Project 25 FDMA common air standards for compatibility with other Project 25 radios. Guardian also operates as an analog radio, offering full backward compatibility with conventional wideband FM systems. The one radio is useable with today's analog wideband radios systems and still compatible with tomorrow's digital narrowband world.

- **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
- **Low Power** surveillance mode for covert operations

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**DATRON**  
Performance You Require. Value You Expect.®



### MODEL DESIGNATION

### GUARDIAN 110W TRUNK MOUNT MOBILE RADIO

Datron Model Number	G25RMV110
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	13.8Vdc, negative chassis ground, only
Current drain @ 13.8Vdc	
▪ Standby	0.5 A
▪ Receive @ rated audio	3.0 A
▪ Transmit @ rated power (110W)	30 A
Mounting	Control head under dashboard using bracket; Remote unit – trunk of vehicle
Dimensions (HxWxD)	
▪ Control head	2.75" x 7.18" x 3.00"
▪ Remote Unit	4" x 8" x 11"
Weight	
▪ Control head	2.5 lbs
▪ Remote Unit	12 lbs
Case	
▪ Control head	Metal and plastic
▪ Remote Unit	Metal
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	B3TG25RMV110, parts 74, 80, 90, 210
Industry Canada	4340A - G25RMV110

### 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	5 Watts internal, 10 Watts external speaker
Audio Distortion (at 1000 Hz)	5% @ 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	3 power levels, selectable - 25/50/110 watts: low power surveillance mode
EM Hum & Noise (wide/narrowband)	-40/34 dB
FCC Modulation Designators	11K0F3E, 16K0F3E, 12K6F1E
Audio Distortion (at 1000 Hz)	2%
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

### ADDITIONAL OPTIONS

GPS Data Transmission	Optional
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### 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	514.4	I
Shock	516.4	I

### 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
G25AMG002	POWER CABLE 25 FT.

#### 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.