

# GUARDIAN G25RBV100 50W Desktop Radio



## Project 25 Compliant

Government ■ Military ■ Public Safety ■ Business

**GUARDIAN**<sup>™</sup>  
BY DATRON

THE VITAL CONNECTION



**Professional  
Desk Microphone**

**High Resolution Display**

High-output display can  
be read easily in dim  
interior lighting

**Programming Keys**

Simple to customize  
-three keys and a toggle switch

**Easy Grip Knobs**

Large rotary knobs  
make volume control  
and channel selection easy

**Software  
Defined  
Keys**

**Large Diameter  
Speaker**

High-output speaker for convenient  
audio monitoring in high  
noise environments

**Tx/Rx  
Indicator**

The G25RBV100 is part of Datron's Guardian product line - Project 25 compliant VHF radios that also includes portable and mobile models. It is a fully digital radio in a desktop package. In addition to meeting the APCO Project 25 FDMA CAI (Common Air Interface) standard for digital equipment, the radio also operates in analog mode, providing full backward compatibility with conventional FM systems.

Datron's desktop unit is an integrated package containing a 110/220 Vac power supply and Datron's 50W mobile radio. It has the same functionality as the unit in a mobile configuration. A high-output LCD display is easy to read in low light environments.

- **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 Bandsread** 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** Receive GPS coordinates using Datron's optional GPS Microphone

**Contact us today: 760.597.1500**  
3030 Enterprise Ct, Vista, CA 92081  
sales@dtwc.com ■ www.dtwc.com

**DATRON**

Performance You Require • Value You Expect<sup>SM</sup>

## GUARDIAN G25RBV100 50W Desktop Radio



### MODEL DESIGNATION

### GUARDIAN 50W DESKTOP RADIO

Datron Model Number	G25RBV100
Frequency Range	136-174 MHz
Channel spacing	12.5 and 25 kHz, selectable in 2.5 or 3.125 kHz steps
Banks, zones, channels, shadow	4 banks, 16 zones, 256 channels, 7 shadow
Voice, digital	Mode voice coding
Frame resync interval	IMBETM, 4.4 kb
Error correction method	180 msec
Input voltage	RS, Golay, Hamming
Mounting	110/220Vac, Specify when ordering
Display	Desktop, self contained
Antenna Port	High output LCD
Control	UHF for 50 ohm antennas
FCC Type Acceptance Number	Local
Industry Canada	B3TG25RMV100, parts 74, 80, 90, 210
	41091-25RMV100

### MECHANICAL, ENVIROMENTAL

Size	7.35"W x 5.7"H x 10.2"D" (18.67 cm x 14.48 cm x 25.91cm)
Weight	17.75 lbs (8.07 kg), including power supply unit
Package	Metal and plastic
Temperature	-30°C to +60°C, operating

### 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, 15 Watts external speaker
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	10/20/35/50 Watts
FM hum and noise (wide/narrowband)	-48/-47 dB, typical
FCC Modulation Designators	11K0F3E, 16K0F3E, 12K6F1E
Frequency Stability (-30 °C to 60°C)	± 0.6 ppm
Audio Distortion (at 1000 Hz)	2%
Maximum Frequency Separation	Full-band split
TX Unwanted Emissions (Conducted)	-91dB

### 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

#### 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.