



GUARDIAN G25RBV100 50W Desktop Radio



GUARDIAN[™]
BY DATRON

THE VITAL CONNECTION

Project 25 Compliant

Government • Military • Public Safety • Business



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.

Transmission security is provided by DES wideband analog encryption, a feature that comes standard with the radio. Optional features include OFB DES digital encryption and over-the-air-rekeying (OTAR). The latter allows wireless changing of encryption keys.

- **Full VHF Bandwidth**, 136-174 MHz, 12.5/25 kHz Steps
- **Multi-mode** analog and digital, wideband and narrowband, up to 4 banks, 16 zones, and 256 channels
- **Integrated Package**, Radio and AC Power Supply in Desktop Enclosure
- **User-selectable Power**, 10/20/35/50 Watt Output Levels
- **Secure Transmissions**, SBCF DES wideband analog encryption is standard
- **Shadow channels** allow communication using any mode - wide or narrow-band, analog or digital, crypto or plain.

DATRON

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GUARDIAN G25RBV100

50W Desktop Radio

MODEL DESIGNATION

GUARDIAN 50W DESKTOP RADIO

Datron Model Number	G25RMB100
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	IMBETM , 4.4 kb
Frame resync interval	180 msec
Error correction method	RS, Golay, Hamming
Input voltage	110/220Vac, selectable
Mounting	Desktop, self contained
Display	High output LCD
Antenna Port	UHF for 50 ohm antennas
Control	Local
FCC Type Acceptance Number	B3TG25RMV100, parts 74, 80, 90, 210
Industry Canada	41091-25RMV100

MECHANICAL, ENVIROMENTAL

Size	7.35"W x 5.7"H x 10.2"D" (18.67 cm x 14.48 cm x 25.91 cm)
Weight	17.75 lbs (8.07 kg), including power supply unit
Package	Metal and plastic
Temperature	-30°C to +60°C, operating
Shock, Vibration, Humidity, Fungus, sand & dust, salt fog, altitude	Per MIL-STD-810F (radio)

TRANSMITTER (MEASUREMENTS PER TIA/EIA 603 STANDARDS)

RF Power Output	10/25/35/50 watts, selectable
Duty Cycle	Continuous
FCC Modulation Designators	11K0F3E, 16K0F3E, 12K6F1E
Frequency stability (-30C to +60C)	+/- 2.5 ppm

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
Audio distortion (@ 1000 Hz)		5% @ rated power
Audio Output power		5W (internal speaker), up to 10W (external speaker)
Spurious Intermodulation		-75 dB
Maximum frequency separation		Full band split

ENCRYPTION

Encryption keys	16
Code key generator	external
SBCF analog DES	Standard
OFB digital DES	Optional
OTAR	Optional

GUARDIAN ACCESSORIES (Optional)

Microphone	Desk, palm DTMF, palm
External speaker	Up to 15W

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