

# SIMREX Corporation

## GLB SNRDS Data Radio Modem

# LICENSED wireless DATA

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### SIMREX..Global wireless solutions. Licensed Wireless Data

For almost 2 decades, SIMREX Corporation's wireless products have been providing wireless networking solutions with applications in SCADA, telemetry, telecommunications, mobile data and online transaction markets. SIMREX Corporation provides licensed and unlicensed solutions, installed worldwide.

### Product Overview

SIMREX Corporation's GLB "Synthesized Netlink Radio Data System" is designed for point to point or point to multipoint networks to handle reliable high speed data up to 19,200 baud. "SNRDS" are also designed for Spectrum/Network efficiency to allow the maximum number of subscribers on the network. For reliability, the "SNRDS" power amplifiers have been designed for continuous duty cycles. The SNRDS uses SIMREX's proprietary preselector technology to implement a narrow RF front end that has exceptional sensitivity and minimizes desensitization and intermodulation in hostile RF environments.

### FEATURES

- Baud Rates: Over the air (1200 to 19,200 bps), serial (1200 to 38,400 bps)
- TCP / IP compatible
- Intrinsically Safe: Class 1, Div 2 (A, B, C, D)
- Turnaround Time: Receive to Transmit @ 5 ms, Transmit to Receive @ 1 ms
- B.E.R. Rate -113db @ 10-6 (9600 Baud), Receiver Sensitivity -119db @ 10-6 (9600 Baud)
- Available Frequencies: 108-512 MHz, 806-960 MHz
- Interfacing with TTL, RS232/422/485
- Repeating (Store & Forward)
- Asynchronous/Synchronous
- Continuous Duty Cycle
- Transparent Mode (Packetized, Continuous, Forward Error Correction)
- 25 - 30 Watt Integrated Power Amplifier
- Software or Manual Switch Multi-Channel Capability ( 8 channels)
- Supports point-to-point and point-to-multipoint, repeater operation with user-configurable addressing
- Hot Standby
- Dust & Water Resistant

### APPLICATIONS

- SCADA (Oil & Gas, Utilities)
- Aeronautics
- Automatic Vehicle Location (AVL)
- DGPS Guidance
- Public Safety
- Mining
- Display Signs
- Surveying
- Many More

# GLB SNRDS

## Radio Specifications

### SYSTEM

<b>Frequency</b>	108-512 MHz & 806-960 MHz
<b>Storage Temperature</b>	-55°C to +85°C
<b>Operating Temperature</b>	-40°C to +60°C
<b>Warmup Time</b>	None
<b>Humidity</b>	0-99% RH Non-Condensing
<b>Size</b>	5 Watt: 4.5W x 2.27H x 9.1D inches 25 Watt: 4.5W x 3.5H x 9.2D inches
<b>Weight</b>	5 Watt: 2 lbs / 0.9 kg 25 Watt: 4 lbs / 1.8 kg
<b>Current Drain</b>	Standby: 280 mA Low Consumption: 160 mA Transmit: 5W: <1.2A 25W: <8.0A Sleep Mode: 4.0 mA
<b>Power Requirement</b>	10 - 15 VDC
<b>Data Connector</b>	DB-25 Female (DCE)
<b>RF Connector(s)</b>	1 or 2, BNC, TNC, "N" Type
<b>Bit Error Rate</b>	-113 dBm @ 10-6 9600 Baud
<b>Power Output</b>	5 Watt: 100 mW - 5 Watts 25 Watt: >5 Watts - 25 Watts
<b>LED's</b>	8
<b>Mounting</b>	Mounting Brackets, Rack Mountable
<b>Packaging</b>	Black, Anodized Aluminum, Dust, Correction Water & Corrosion Resistant

### APPROVALS

FCC Type Acceptance - Parts 22,  
90,94DOC Type Acceptance-RSS  
- 199,121,122

### RADIO

<b>Modulation</b>	FM
<b>Step Spacing</b>	5, 6.25, 12.5, 25 KHz
<b>Antenna Impedance</b>	50 Ohms Nominal
<b>Frequency Stability</b>	108-399 MHz - 2.5ppm 400-960 MHz - 1.5ppm
<b>Turnaround Time</b>	RX to TX @ 5ms TX to RX @ 1ms

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### RECEIVER

<b>Sensitivity</b>	-119 dBm 12dBm SINAD (EIA)
<b>Spurious &amp; Image Rejection</b>	> 70 dB
<b>Adjacent Channel Filter Rejection</b>	> 70 dB
<b>Intermodulation</b>	65 dB, third order

### CONTROLLER

<b>Serial Ports</b>	Primary & Secondary, TTL, RS232, RS422, RS485
<b>Data Rate</b>	300 - 38,400 bps
<b>CPU Watchdog Timer</b>	approximately 1 second
<b>Transmit Limit Timer</b>	approximately 15 seconds
<b>Memory</b>	32K Eeprom, 32K Ram, 512 EEprom
<b>Backup Method</b>	EEprom
<b>Computer Interface</b>	RS232 with optional RS422/485
<b>Flow Control</b>	RTS, CTS or XON & XOFF
<b>Protocol</b>	CSMA
<b>Optional</b>	Forward Error

### TRANSMITTER

<b>Conducted Spurious Harmonics</b>	-65 dBc
<b>Output Power</b>	13.8 Volts @ 5 watts
<b>TX Time</b>	Continuous
<b>Attack Time</b>	1 millisecond
<b>Optional</b>	6-25 Watts @ 108 - 512 MHz 6-15 Watts @ 806 - 870 MHz 6-10 Watts @ 870 - 960 MHz

### MODEM

<b>Baud Rate</b>	1200 bps to 19200 bps
<b>Modem Modulation</b>	Bell 202, FSK, GMSK
<b>CD Response</b>	3 ms

SIMREX products are manufactured under a quality system certified to ISO 9001. SIMREX reserves the right to make changes to specifications of products described in this data sheet at any time without notice and without obligation to notify any person of such changes.  
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