

SIMREX Corporation

ARIA-GLB Product Manufacturer

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GLB SNRDS Synthesized Netlink Radio Data System

Data Sheets:

- [Synthesized Netlink Radio Data System Features and Specifications \(pdf 67K\)](#)
- [SNRDS Operating Manual \(pdf 397 K\)](#)
- [SNRDS 5W Dimensional Drawing \(pdf 112k\)](#)
- [SNRDS 25W Dimensional Drawing \(pdf 140k\)](#)
- [SNRDS Mounting Bracket Drawing \(pdf 52k\)](#)
- [SNRDS Mounting Drawing \(pdf 134k\)](#)
- [Ethernet Adapter Specifications and Manual \(pdf 67k\)](#)

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 maximizes desensitization and intermodulation in hostile RF environments.

**25 WATT VE****5 WATT V**

Frequency Variation

Frequency	108-174	218-399	400-512	806-960
Power @ 13.8 volts	1-5 Watts	1-5 Watts	1-5 Watts	1-5 Watts
Power Amp @ 13.8 volts	6-25 Watts	6-25 Watts	6-25 Watts	6-15 Watts (800) 6-10 Watts (900)
Frequency Stability	2.5ppm	2.5ppm	1.5ppm	1.5ppm

NOTE : Custom frequencies are available

Applications: SCADA (Oil & Gas, Utilities) Aeronautics Automatic Vehicle Location (A Guidance Public Safety Mining Display Signs Surveying Many More

Features of the SNRDS

- 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 B)
- 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-configuration
- Hot Standby
- Ethernet Capable
- Dust & Water Resistant

SYSTEM

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

APPROVALS

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

RADIO

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

RECEIVER

Sensitivity	-119 dBm 12dBm
Spurious & Image Rejection	> 70 dB
Adjacent Channel Filter Rejection	> 70 dB
Intermodulation	65 dB, third order

CONTROLLER

Serial Ports	Primary & Secondary RS485
Data Rate	300 - 38,400 bps
CPU Watchdog Timer	approximately 1 s
Transmit Limit Timer	approximately 15 s
Memory	32K Eprom, 32K
Backup Method	EEPROM
Computer Interface	RS232 with optional
Flow Control	RTS, CTS or XON/XOFF
Protocol	CSMA
Optional	Forward Error Correction

TRANSMITTER

Conducted Spurious Harmonics	-65 dBc
Output Power	13.8 Volts @ 5 w
TX Time	Continuous
Attack Time	1 millisecond
Optional	6-25 Watts @ 10: 806 - 870 MHz 6-

MODEM

Baud Rate	1200 bps to 19200
Modem Modulation	Bell 202, FSK, GFSK
CD Response	3 ms

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SIMREX Corporation

GLB SNRDS Data Radio Modem

LICENSED
wireless
DATA

11101
1110010
11100010010
111100110101



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

Frequency	108-512 MHz & 806-960 MHz
Storage Temperature	-55°C to +85°C
Operating Temperature	-40°C to +60°C
Warmup Time	None
Humidity	0-99% RH Non-Condensing
Size	5 Watt: 4.5W x 2.27H x 9.1D inches 25 Watt: 4.5W x 3.5H x 9.2D inches
Weight	5 Watt: 2 lbs / 0.9 kg 25 Watt: 4 lbs / 1.8 kg
Current Drain	Standby: 280 mA Low Consumption: 160 mA Transmit: 5W: <1.2A 25W: <8.0A Sleep Mode: 4.0 mA
Power Requirement	10 - 15 VDC
Data Connector	DB-25 Female (DCE)
RF Connector(s)	1 or 2, BNC, TNC, "N" Type
Bit Error Rate	-113 dBm @ 10-6 9600 Baud
Power Output	5 Watt: 100 mW - 5 Watts 25 Watt: >5 Watts - 25 Watts
LED's	8
Mounting	Mounting Brackets, Rack Mountable
Packaging	Black, Anodized Aluminum, Dust, Correction Water & Corrosion Resistant
<u>APPROVALS</u>	FCC Type Acceptance - Parts 22, 90,94DOC Type Acceptance-RSS - 199,121,122

RADIO

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

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RECEIVER

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

CONTROLLER

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

TRANSMITTER

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

MODEM

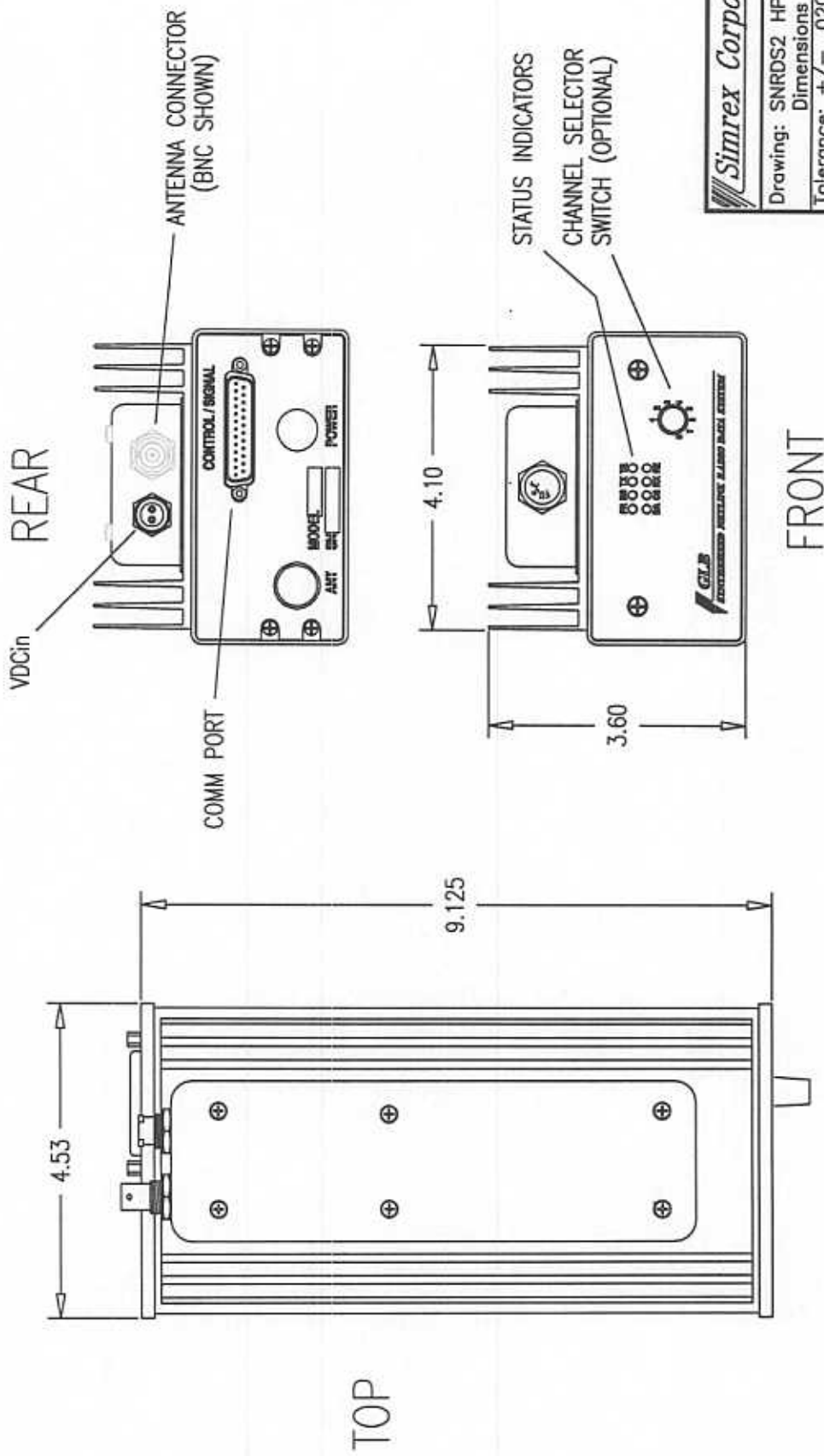
Baud Rate	1200 bps to 19200 bps
Modem Modulation	Bell 202, FSK, GMSK
CD Response	3 ms

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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Simrex Corporation - SNRDS2 HP

☐ Check here if this is a photo-copy or not shown at indicated scale.



Simrex Corporation

Drawing: SNRDS2 HP Overall Dimensions
Tolerance: +/- .020

Finish:
REV. 1

NOTE: SHOWN W/OPTIONAL CHANNEL SELECTOR SWITCH

04/01/97 Units: Inches
File: G-000992 PLOT scale: 1=1.5 2. Simrex