

Simrex Corporation

SPE Spread Spectrum Modems

UNLICENSED wireless DATA

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SIMREX..Global wireless solutions. Unlicensed 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

The SP-900E and SP-2.4E are ideal for networking remote ethernet-enabled devices to the LAN. For applications that require performance of 115kbps at up to 20 miles, the SP-900E and SP-2.4E provide significantly longer-range data transfer than typical wireless ethernet products.

The proprietary radio technology used in the SP-900E and SP-2.4E excels in the most demanding RF and physical environments.

A typical application is to bridge remote ethernet PLC's to the LAN. Transparent MAC address filtering ensures that no local ethernet traffic is transmitted over the RF channel, thus providing optimal data throughput and seamless integration of the PLC with the network.

FEATURES

- Extremely robust long range frequency-hopping data radio
- Very high performance and noise rejection allowing reliable communication in high power cellular and paging environments
- License-free operation in the 902-928 MHz or 2.4000-2.4835 GHz ISM bands
- Industrial temperature specification
- Supports point to point, point to multipoint, repeater and diagnostics modes
- IEEE 802.3 compliant
- Convenient and easy to use configuration menu is provided through a separate serial port. The SP-900E & SP-2.4E also support remote configuration
- Internal CRC and auto re-transmit ensures reliable transmission

APPLICATIONS

- Industrial Wireless Networking
- Ethernet PLC's
- Telemetry
- Remote Monitoring
- Wireless Internet
- Display Signs
- Many More

SP-900E & SP-2.4E Wireless Spread Spectrum Radio Specifications

	SP-900E	SP-2.4E
Frequency	902 - 928 MHz	2.4000 - 2.4835 GHz
Spreading Code	Frequency Hopping	Frequency Hopping
Output Power	1W User Configurable	1W User Configurable
Sensitivity	-108 dBm	-108dBm
Data Throughput	115 kbps uncompressed	115 kbps uncompressed
Range	22 Miles	22 Miles
Rejection	70 dB out of band; 60 dB in band; 50 dB adjacent channel	70 dB out of band; 60 dB in band; 50 dB adjacent channel
Operating Modes	Point to Point, Point to Multipoint, Repeater	Point to Point, Point to Multipoint, Repeater
Buffer Capacity	256 frames	256 frames
LAN Address Memory	Up to 10,000 addresses	Up to 10,000 addresses
Hopping Patterns	64 user selectable	49 user selectable
Diagnostics	Remote control, statistics, diagnostics	Remote control, statistics, diagnostics
Error Detection	16bit CRC with optional FEC	16bit CRC with optional FEC
Data Interface	10Base-T, RJ45	10Base-T, RJ45
Configuration Interface	RS-232, 9600 baud, DB9F	RS-232, 9600 baud, DB9F
Power Supply	10 to 30 VDC	10 to 30 VDC
Power Consumption	500mA max at 12V and 1W Tx Power; 300mA typ. at 12V and 1W Tx Power	520mA max at 12V and 1W Tx Power; 310mA typ. at 12V and 1W Tx Power
Operation Environment	-40 to +75 C; 5-95% non-condensing	-40 to +75 C; 5-95% non-condensing
Enclosure	Extruded aluminum, powder coat, 3.75" x 4.25" x 1.72"	Extruded aluminum, powder coat, 3.75" x 4.25" x 1.72"
Weight	Approx. 420 grams (0.9 lbs)	Approx. 420 grams (0.9 lbs)
Antenna Connector	Reverse gender TNC	Reverse gender TNC
LED Indicators	Power, Link, WANTX, WANRX, LANTX, LANRX, RSSI	Power, Link, WANTX, WANRX, LANTX, LANRX, RSSI
Approvals	FCC Part 15.247, IC RSS210	FCC Part 15.247, IC RSS139 (Canadian Version is IC RSS210- approved)

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