

Product Data Sheet

Wireless ASCII Protocol Interface - SWRF-ASCII

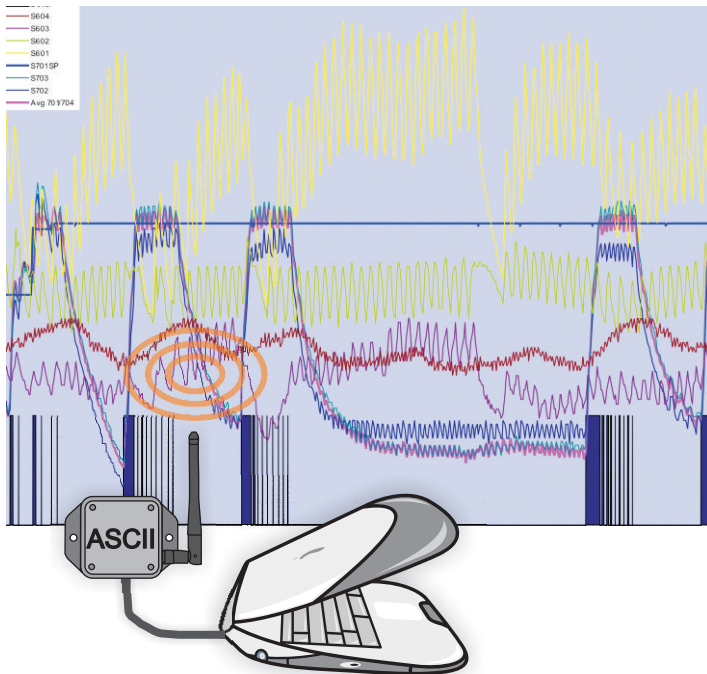


Spinwave Systems' Wireless ASCII interface allows for easy serial protocol integration of wireless sensor networks with proprietary embedded devices and PCs.

Sensor data is provided via the interface's RS-485 port and easy to parse text messages.

The ASCII Protocol Interface is supported by Spinwave's Logger Software for PC-based logging of sensor data in CSV, XML and HTML formats.

Microsoft EXCEL® integration provides for a cost-effective reporting solution.



Real-World Ready

Ultra-high reliability means that the wireless sensor network (based on IEEE 802.15.4) outsmarts changing RF interferences with self-adapting frequency agility (patent pending).

Sophisticated sensor power management results in long battery life; 3 to 8 years, depending on transmission intervals.

Mesh Repeaters/Routers are ideal for large area deployment, difficult RF environments and increased node count.

Flexibility Included

Scalability - extends the range and node count of wireless sensor networks.

Self-forming - deployment is quick and simple as nodes automatically join network when powered up

Self-healing - reliability is ensured as the network automatically reconfigures itself if a communication path is obstructed, using alternate communication paths for optimal network availability.

Flexible mounting options to accommodate a broad range of installation requirements.

Order Information

SWRF-ASCII: Wireless ASCII protocol Interface

SWADAPT-USB: RS-485/USB adapter for use with Spinwave Data Logger Software

SWLOGGER: Spinwave Data Logger Software, download from Spinwave's support web site

Specifications

Enclosure

- Mesh Repeater: ABS plastic, UL94-5VA, color: bone

Installation

- Surface mount

Operating Conditions

- 32°F to 104°F (0°C to 40°C)
- 5% to 95% R.H. non-condensing

Storage Conditions

- -40°F to 176°F (-20°C to 80°C)
- 5% to 95% R.H. non-condensing

Radio Characteristics

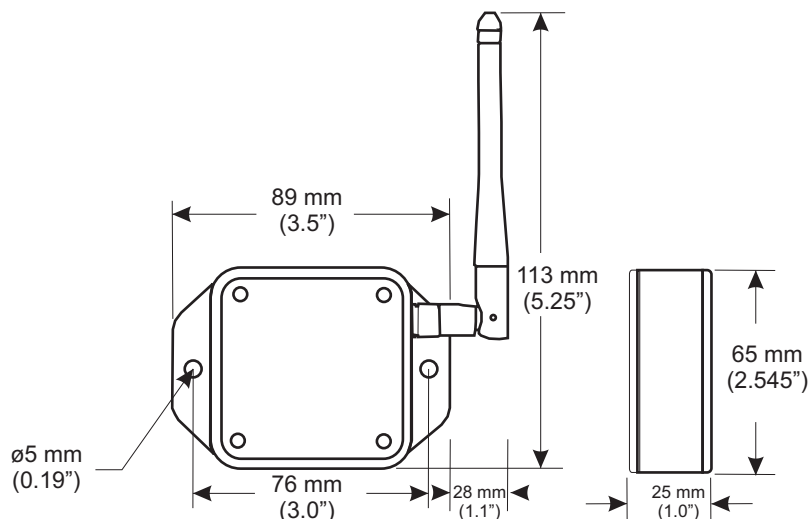
- 2.4GHz, IEEE 802.15.4
- Receiver Sensitivity
-95dBm
- Receiver Adjacent Channel Rejection
+/-5MHz, 46/39 dB
- Receiver Alternate Channel Rejection
+/-10MHz, 58/55 dB
- Open field Range
Receiver/Repeater: up to 3500 ft. (1 km)
Repeater/Sensor: up to 700 ft. (230 m)
- In-building Range per hop (Sensor to Repeater
or Repeater to Repeater)
120 ft. (40 m) in typical commercial office
building; range heavily dependent on building
material and layout
- Transmission Interval
min. 21 seconds, user configurable

Power

- 5 VDC, powered through PC's USB port or
through external regulated power supply

Agency Approvals

- FCC part 15
- CE



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