

# Product Data Sheet

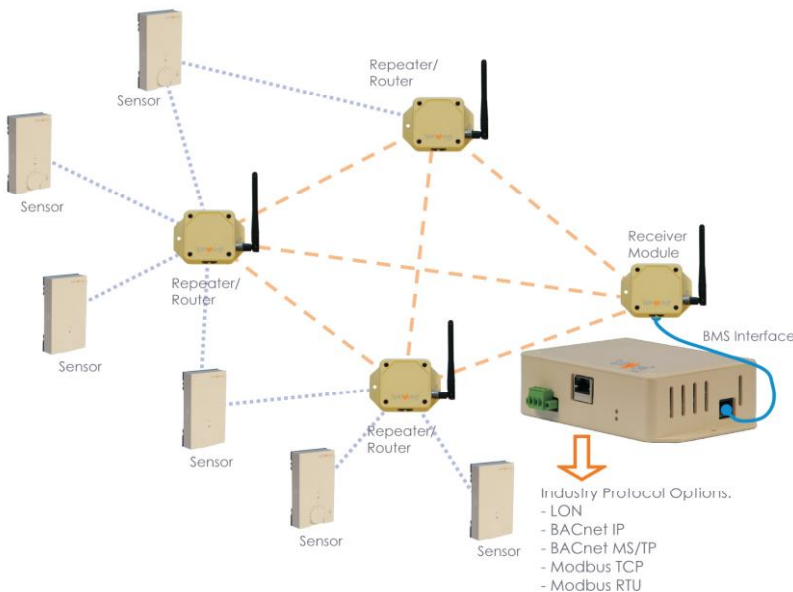
## BMS Protocol Interface - SWRF



Spinwave Systems' BMS interface easily connects Spinwave's wireless sensors to open-protocol building automation systems.

The wireless BMS interface consists of an RF receiver module and an open protocol interface. Up to 31 separate wireless devices (sensors and/or repeaters) are supported per BMS interface.

Sensor data points are mapped to BMS network variables and are presented to the Building Management System as native BACnet objects, LON SNVTs or Modbus registers.



### 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.

Easy to engineer and interface.

### Flexibility Included

Multiple interface options - easily integrates with virtually any building automation system.

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-LON:** RF Receiver Module and LON Interface.

**SWRF-BACNET-MSTP:** RF Receiver Module and BACnet MS/TP Interface.

**SWRF-BACNET-IP:** RF Receiver Module and BACnet IP Interface.

**SWRF-MODBUS-TCP:** RF Receiver Module and Modbus TCP Interface.

**SWRF-MODBUS-RTU:** RF Receiver Module and Modbus RTU Interface.

Note: All part numbers include 3ft receiver cable

# Specifications

## Enclosure

- RF Receiver: ABS plastic, UL94-5VA, color: bone
- BMS Interface: ABS plastic, UL94V-0, 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

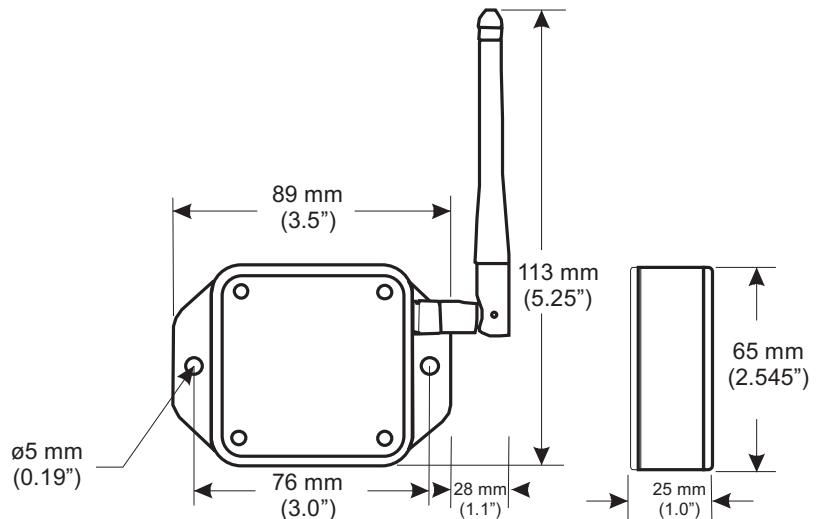
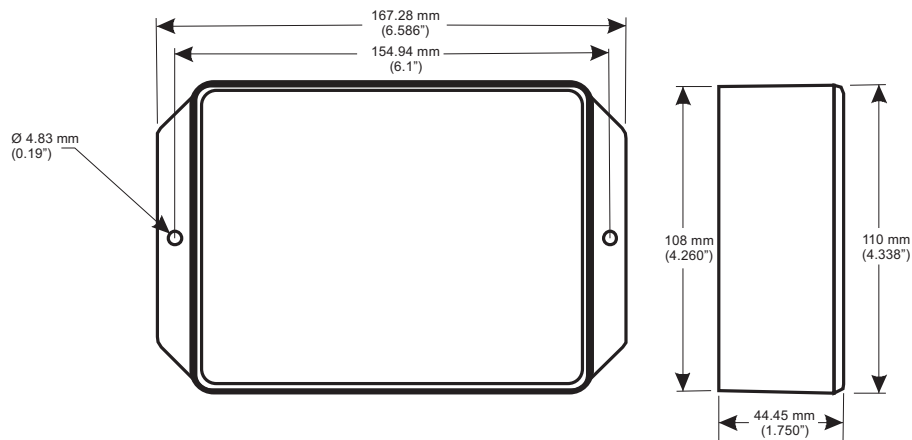
- 2.4GHz, IEEE 802.15.4
- Receiver Sensitivity -95dBm
- Receiver Adjacent Channel Rejection +/-5MHz, 46/39 dB
- Receiver Alternate Channel Rejection +/-10MHz, 58/55 dB
- Open field Range  
Receiver/Router: up to 3500 ft. (1 km)  
Receiver/Sensor: up to 700 ft. (230 m)
- In-building Range per hop (Sensor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

## Power

- 24VAC (+/- 20%), 30VA

## Agency Approvals

- FCC part 15
- CE



0407G

Spinwave Systems, Inc.  
235 Littleton Road  
Westford, MA 01886  
978-392-9000  
www.spinwavesystems.com

© 2007 Spinwave Systems, Inc. All rights reserved.

Spinwave is a trademark of Spinwave Systems, Inc.

All other product and company names are trademarks or registered trademarks of their respective owners.