

# Product Data Sheet

## Wireless Mesh Repeater/Router - SWRP

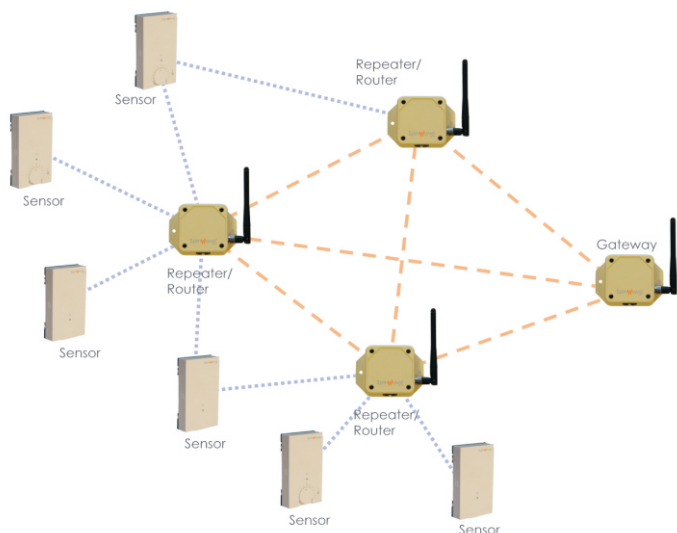


Spinwave Systems' Wireless Mesh Repeater/Router significantly extends the range and node count of wireless sensor networks.

The installation of multiple Mesh Repeaters/Routers provides alternate wireless communication paths from sensors to wireless receiver modules thus improving the network's ability to cope with obstacles. The wireless network will automatically "heal" and reconfigure itself if a communication path is obstructed.

Wireless Mesh Repeaters/Routers are line powered and, due to flexible installation options, can be mounted hidden in suspended ceilings or, alternatively, in the occupied space of buildings mounted on the ceiling or wall.

Spinwave's wireless mesh network supports up to thirty (30) Mesh Repeaters/Routers.



### 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

**SWRP:** Wireless Mesh Repeater/Router

**SWPSUP-2:** 120VAC Power Supply for Wireless Mesh Repeater/Router, plugs into standard 120VAC outlet.

# 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

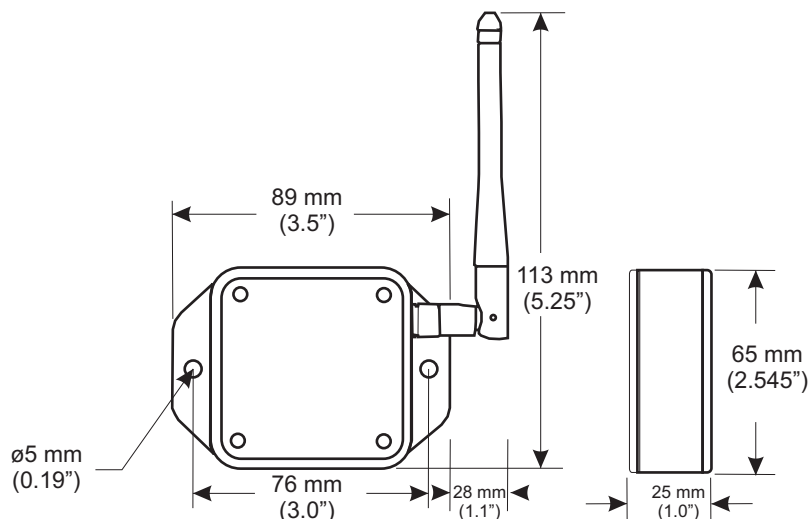
- 2.4GHz, IEEE 802.15.4
- Receiver Sensitivity  
-95dBm
- Receiver Adjacent Channel Rejection  
+/-5MHz, 46/39 dB
- Receiver Alternate Channel Rejection  
+/-10MHz, 58/55 dB
- Open field Range  
Receiver/Repeater: up to 3500 ft. (1 km)  
Repeater/Sensor: up to 700 ft. (230 m)
- In-building Range per 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, using Spinwave's 120VAC  
Repeater/Router power supply (SWPSUP-2)

## Agency Approvals

- FCC part 15
- CE



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