

## SECURE, SCALABLE WIRELESS SENSORS FOR LONG RANGE IOT APPLICATIONS



Laird's Sentrius™ RS1xx External Series is a **battery powered, long range sensor platform** leveraging the benefits of LoRaWAN and Bluetooth Low Energy (BLE) connectivity. Its small, rugged form factor contains superior RF performance and flexibility with **wide ranging external temperature probe**. At its core, the RS1xx External Series utilizes Laird's field-proven and reliable RS1xx Series hardware, providing **LoRaWAN** options in **868 and 915MHz** frequencies, plus **BLE** for local data display, configuration and troubleshooting. Based on the **Semtech SX1272** and **Nordic nRF51 silicon**, it offers a **LoRa range up to 10 miles** with a local 2.4 GHz connectivity option to smartphones and tablets. The RS1xx External Series works with Laird's Sentrius™ RG1xx Series of LoRa/multi-wireless gateways for simple out-of-the-box integration and is compatible with 3<sup>rd</sup> party Cloud and LoRa network ecosystem partners.

- **Multi-wireless:** LoRaWAN (868/915 MHz) and Bluetooth v4.2 (Central/Peripheral) with fully integrated high-performance antennas
- **External Sensor Probe:** wide ranging temperature sensor on cabled IP67 probe
- **Fully certified** for FCC/IC/CE and Bluetooth SIG
- **Simple wireless configuration** using mobile application and BLE.
- **Harsh Environments:** Robust IP65 enclosure to serve many varied installation needs
- **Integrated out of the box networks:** Default configuration with Laird RG1xx gateways for simple, out-of-the-box cloud connectivity

## FEATURES AT A GLANCE



### YOUR WIRELESS NETWORK

Develop a fully-owned private LoRa network to capture, route, and process IoT data for your application - choose from RM1xx modules, RS1xx finished sensors or RG1xx Gateways



### RUGGED DURABILITY WITH A BROAD SENSOR ARRAY

Robust enclosures provide a robust and resilient platform for recording and delivering sensor data from a range of harsh environments



### COMPREHENSIVE SECURITY AND RELIABILITY

Robust multi-layer security at each interface to safeguard your network at every level



### BROAD CERTIFICATION AND APPROVALS

FCC, IC, CE and Bluetooth SIG listing



### PLATFORM FOR BUILDING ACTIONABLE IOT INTELLIGENCE

Route sensor data to the Cloud with Laird's simplified wireless connectivity deployment



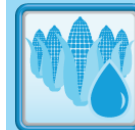
### PERSONAL SUPPORT FOR YOUR IMPLEMENTATION

Support works with Laird engineering to help configure and deploy your application

## APPLICATION AREAS



Cold Chain Management and Food Safety



Agricultural Humidity and Environmental Monitoring



Industrial Heating and Cooling

## KEY SPECIFICATIONS

CATEGORY	FEATURE	SPECIFICATION
Chipset	LoRa®	Semtech SX1272
	Bluetooth®	Nordic nRF51822 – 256k / 32k
	LoRa Frequencies	863 – 870 MHz (EU), 902 – 928 MHz (US)
Temperature Probe	Temperature Accuracy Ranges	-10° to 85°C (+/-0.5°C) -55° to +125°C (+/-0.9°C)
	Dimensions	Overall Length 1520mm. Stainless Steel end tube – 6.35mm DIA x 200mm Long
	Antenna	Integrated Custom Laird antenna for 868 or 915MHz Ceramic chip antenna for 2.4GHz
Power	Battery	2 x AA - replaceable
Software	Mobile Application	Android & iOS – Remote sensor display and/or configuration + Firmware Update
	Data logging	10,000 measurements (256k of flash memory available)
Storage	Status	3 – BLE and LoRa status
LED	User Input	Multi-use – default BLE Pairing
Button	Dimensions	116 x 91 x 34 mm
Physical	Operating Temp.	-25° to +50°C (Note external probe capable of -55 to 125°C)
Environmental	Storage Temperature	-40° to +50°C
Regulatory	Approvals	FCC, IC, CE, Bluetooth SIG
Warranty		1-Year Warranty



The Sentrius™ RS1xx External Series LoRa/BLE sensor features integrated antennas, external temperature probe and rugged IP65 enclosures.

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
455-0013	Sentrius™ RS1xx External Sensor - 868MHz External Temperature Probe inc. LoRa & BLE - Bulk
455-0010	Sentrius™ RS1xx External Sensor - 868MHz External Temperature Probe inc. LoRa & BLE
455-0012	Sentrius™ RS1xx External Sensor - 915MHz External Temperature Probe inc. LoRa & BLE - Bulk
455-0009	Sentrius™ RS1xx External Sensor - 915MHz External Temperature Probe inc. LoRa & BLE
455-0011	External Temperature Probe Only (Single)

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Industrial Temperature Sensors](#) category:*

*Click to view products by [Laird Connectivity](#) manufacturer:*

Other Similar products are found below :

[590-32AC34-103-WRI](#) [590-59CN02-103](#) [G9864ST22F0](#) [HEL-705-U-0-12-C1](#) [HEL-736-U-2-36](#) [HEL-717-U-0-24-00](#) [519-39AW09-245](#)  
[519-39CH01-295](#) [535-32AB36-202](#) [535-34AE08-303](#) [512-32AQ01-503](#) [521-33AG04-303](#) [521-53BR01-503](#) [E52P6DY4M](#) [535-34AE09-222](#)  
[590-32AC34-103](#) [590-32AD05-103](#) [HEL-705-U-0-36-00](#) [E52-CA6D-N 4M](#) [E52-P6DY 2M](#) [E52-P20C-N D=8](#) [E52-THE5A 100-200 2M](#)  
[HRTS-5760-B-T-0-18](#) [6655-71990001](#) [LTPCTGA20MBSIBX01](#) [LTPCTAA20MDSIEX01](#) [BB-HS-104T2505402](#) [NCP81255MNTXG](#) [HEL-](#)  
[707-T-1-24-00](#) [HEL-716-U-0-24-00](#) [USW2247](#) [R-11614-1](#) [RP103ST22P2](#) [R-10331-3F6](#) [E52-P20AY-D32 4M](#) [B57045K0222K000](#)  
[B57045K0154K000](#) [PPG102A6](#) [R-7119](#) [R-8949-34](#) [BB-WTJ-10-36-TT](#) [20006233-00](#) [USW2889](#) [E52-P35C-ND3.2](#) [IWTTP100A](#) [NB-](#)  
[PTCO-142](#) [B57045K0682K000](#) [R-10224-16](#) [R-1630](#) [R-8204](#)