

BT510 Bluetooth 5 Long Range IP67 Multi-Sensor

i *Status: Recommended for New Design (RND)*

New: [Board reference](#) to develop your applications with Zephyr RTOS on our BT510!

The Sentries™ BT510 Sensor is a battery powered, Bluetooth 5 Long-Range integrated sensor platform enabling robust, reliable sensor data transfer in the harshest of environments.

The BT510 is powered by Laird Connectivity's field proven [BL654 BLE module](#) that integrates Nordic Semiconductor's nRF52840 silicon for feature rich application development in the Cortex M4F with 1MB Flash memory, which also enables integrated sensor data logging and storage. The ultra-low power sensor uses a single replaceable CR2477 coin cell battery, for a multi-year life and hassle free, long term maintenance.

The BT510 is a multi-sensor platform, with a magnetic reed switch sensor, temperature sensor, proximity sensor, and accelerometer. These multiple sensing capabilities support a massive array of use cases and applications, and its IP67 enclosure ensures robust protection for even the harshest of environments.

- ✓ **Multi Sensor Platform** – Integrated temperature sensor with proximity, accelerometer and magnetic reed switch sensors





✓ **Best-in-Class BTv5 Performance** – BLE Long Range, secure connections and BLE beaconing

Q Search...

Products Services Support Resources

✓ **Simple sensor and wireless configuration** – Our supporting smartphone app easily configures all settings of the platform



- ✓ **IP67 Enclosure** – A rugged IP67 certified enclosure with simple twist / lock design for hassle free maintenance
- ✓ **Replaceable Battery** – Ultra low power capabilities and replaceable CR2477 coin cell
- ✓ **Worldwide Approvals** – Device Certified for FCC, IC, CE, MIC, RCM and Bluetooth SIG
- ✓ **Future Proof** – OTA updates from mobile app or Cloud connectivity with Laird Connectivity's Sentries™ IG60 IoT gateway
- ✓ **Customization** – Custom branding, packaging, application development all available!



Temperature
Sensor



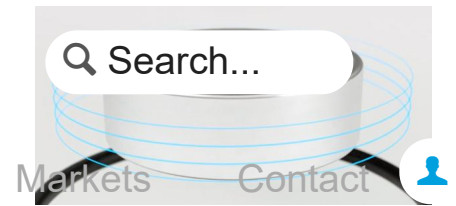
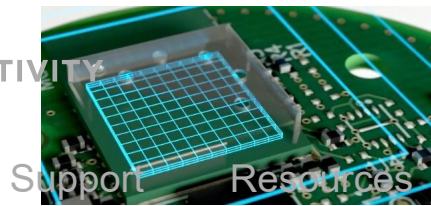
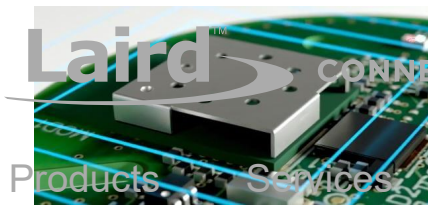
Open / Close
Sensor



Proximity
Sensor



Acceleration
Sensor



Best-in-Class Performance

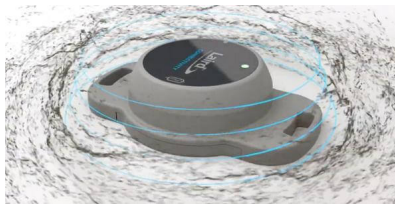
Powered by our proven [BL654 module](#) with BLE Long Range and BLE beaconing

nRF52840

Feature rich application development using Nordic Semiconductor's nRF52840

Replaceable Battery

Replaceable CR2477 coin cell battery for a multi-year, hassle-free life



Twist / Lock Design

Implements a simple twist / lock design for hassle-free maintenance

IP67 Certified

Rugged IP67 certified enclosure designed for the harshest environments

Small Footprint

A small, low-cost footprint to gather data across a wide-variety of applications



How far can power-saving take your application?

The Sentries BT510 is a Bluetooth 5 Low Energy multi-sensor can last for months or years on its replaceable coin-cell battery. That battery life is dependent on lots of factors such as sleep time, ambient temperature, and more. Estimate how long your BT510 application can go on a single battery using our battery estimator tool.

[Estimate Battery Life >](#)

Get the Sentries BT510 App



Specifications

Antenna Type

Onboard PCB antenna

Chipset (Wireless)

Nordic nRF52840

Wireless Specification

Bluetooth v5

Accelerometer	3-axis MEMS – Programable motion and contact detection
Battery	CR2477 coin cell - replaceable
Certifications	FCC, IC, CE, MIC, RCM, Bluetooth SIG
Data Logging	7 days of temperature data at 15 minute read intervals
Dimension (Height - mm)	19 mm
Dimension (Length - mm)	80 mm
Dimension (Width - mm)	51 mm
LED Status	1 LED, multi-state
Mounting Style	Screw, zip-tie, or industrial velcro
Open / Close Contact	Omni polar magnetoresistive sensor
Operating Temperature	-20° - 60°C (limited by coin cell type)
Software	Mobile App - Android & iOS - Configuration and/or remote sensor display, OTA Firmware Update
Software	IoT Gateway - Configuration and/or remote sensor display to cloud (PENDING)