User Guide

Sentrius™ BT710

Version 2.0

REVISION HISTORY

Version	Date	Notes	Contributor	Approver
1.0	10 Dec 2020	Initial release	Scott Lederer	Chris Boorman
2.0	21 Feb 2021	Transferred detailed regulatory information to a separate document	Sue White	Jonathan Kaye

CONTENTS

1 ABOUT THIS GUIDE

This document provides a comprehensive guide on how to configure the Sentrius™ BT710 Contact Tracer functionality, including Bluetooth parameters, alert parameters, and general use for proximity sensing applications.

2 INTRODUCTION

2.1 Product Overview

The Sentrius™ BT710 Contact Tracer or "tag" is a battery powered, Bluetooth v5 integrated sensing and contact tracing platform enabling tag-to-tag proximity sensing and logging along with tag-to-gateway communication for log upload. It contains several local alarm peripherals including four bright red LEDs, a bi-color status LED, an audible speaker, and a vibration motor (on wrist-worn models). For proximity sensing applications where local alarm indication is desired, the BT710 offers several user-configurable options to suit the use case. The BT710 is powered by Laird Connectivity's field proven BL653 BLE module that integrates Nordic Semiconductor's nRF52833 SoC silicon.

1. Clasp
2. Status LED
3. Speaker
4. Alarm LEDs
5. Pushbutton

Figure 1: Top of the Sentrius™ BT710

Note: Laird Connectivity has a comprehensive staff of design services engineers available to help customize the tracer. Please contact your local Laird Connectivity sales representative for more details.

2.2 Specifications

See the BT710 product brief for detailed specifications. It's available from BT710 series product page or from the following link: https://www.lairdconnect.com/documentation/product-brief-bt7x0-contact-tracer

https://www.lairdconnect.com/bt7x0-series

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Americas: +1-800-492-2320
Europe: +44-1628-858-940
Hong Kong: +852 2923 0610

3   DEVICE OPERATION

3.1   Activating the Tracer

The Sentrius™ BT710 is shipped with the battery installed and operating in a low power state called **Shipment Mode**.

When it arrives from the factory, the tracer is in shipment mode. To wake the device, press and hold the pushbutton for five seconds until the alarm LEDs turn on and a speaker tone is emitted along with the status LED lighting green and a brief vibration for devices equipped with that feature (startup sequence). This puts the tracer into **Active Mode**. The tracer blinks the status LED yellow waiting for its internal clock to be set, either by the BT710 mobile app or a nearby gateway. If a gateway is not available, connect the mobile app to automatically set the internal clock. Once in active mode with its clock set, the BT710 scans for compatible nearby tracers and transmits BLE advertisements for other tracers to sense.

In active mode, the BT710 tracer can be configured using the associated Laird Connectivity BT710 mobile application. The default configuration sets the tracer to periodically scan for and log other tracers. Additional parameters include BLE advertising interval, RSSI sensing/proximity thresholds, proximity alarm timers, and alarm indicator styles.

There are two low power modes: **Non-Active** and **Power-Save**. The tracer automatically enters these modes based on motion detection to extend battery life. User-configurable parameters control timing for this feature. Separate BLE scanning parameters can be set for each operating mode to scan less frequently in Non-Active mode and Power-Save mode. The timeouts for entry into the low power modes is also adjustable on the settings tab of the app.
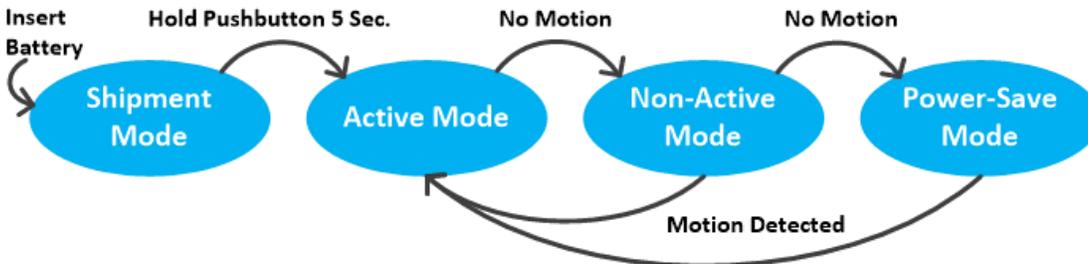

Figure 2 - Operating modes of the BT710 Tracer

3.2   Battery Check

Press and hold the pushbutton for three seconds to perform a battery check. The BT710 lights up a number of its red alarm LEDs to indicate approximate voltage level of the battery.

> 4 LEDs on: 75-100% battery life remaining
> 3 LEDs on: 50-75% battery life remaining
> 2 LEDs on: 25-50% battery life remaining
> 1 LED on: 0-25% battery life remaining

When the BT710 senses a battery below the low battery threshold parameter, it blinks the status LED quickly three times red at each scan interval. A small beep sequence is also emitted occasionally as a reminder to change the battery.

3.3   Factory Reset

If the button is held for more than 10 seconds, the status LED begins to rapidly blink yellow. Releasing the button performs a factory reset. A factory reset erases all logs and resets all parameters to defaults. The BT710 goes through a reset cycle when finished and emits the startup sequence LED pattern and beeps, followed by entry into active mode.

3.4   Replacing Batteries

The battery is a 3-volt lithium of CR2477 type.

Note: The battery door cover is underneath the clasp on the backside of the contact tracer. A coin may be used to aid in removal.

3.5 Active Mode Operation
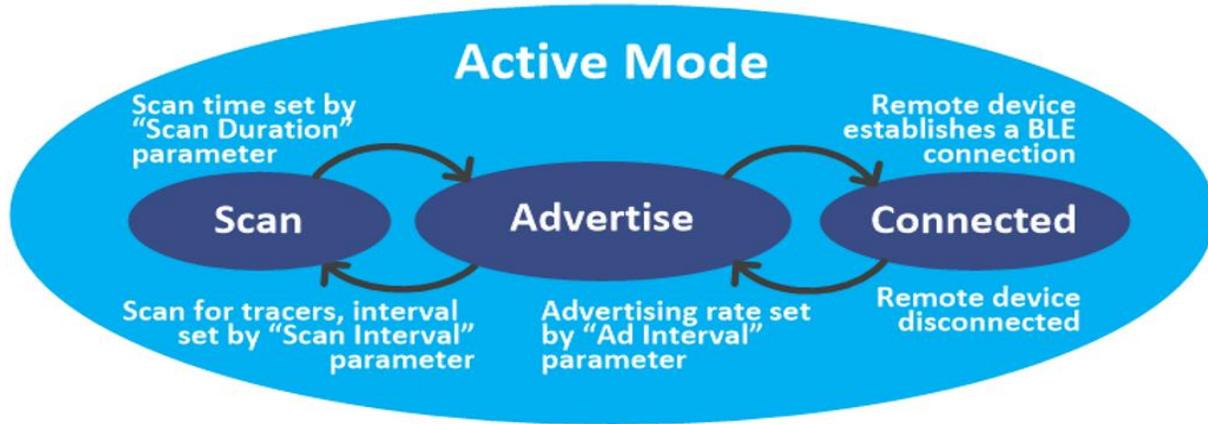
Figure 3 – BLE operations in Active mode

When in Active mode, the tracer sequences through a series of BLE operations continuously including Scan, Advertise, and Connected. The Scan Interval parameter determines how much time passes between scan events, at which point the tracer awakes from sleep and performs a BLE scan (discovery of other tracers) for a number of seconds defined by the Scan Duration parameter. At each scan interval, the status LED blinks to indicate the tag is scanning (see the LED Patterns section for details on LED blink patterns).

When not connected, the tracer advertises (transmits) data for other tracers to receive when scanning. The rate of transmit events when performing the Advertise operation is determined by the Ad Interval parameter.

The advertisement data contains identifiers to help filter out non-tracer devices, including device ID, TX power, and other status information. Flags in the advertisement indicate to gateway devices when a tracer has log data ready for download.

3.6 LED Blink Patterns

The tracer hardware uses a red/green status LED to indicate operating behavior to the user. The following table (Table 1) describes the LED patterns used to indicate status.

Table 1: Status LED Blink Patterns

LED	Status LED Behavior	Description
🔆	Slow flashing yellow	Internal clock is not set, connect to mobile app or bring the tag near a gateway to automatically set it
🔆	Fast flashing yellow	When holding the button for 10+ seconds, fast yellow flash indicates release of the button will perform a factory reset
🔆	Green on startup	The status LED shows green briefly as part of the startup sequence indicating the tag is running BT710 tracer firmware
🔆	Fast flash green	Green flash indicates the tag is scanning for presence of nearby tags
🔆	Three green flashes	Three quick green flashes indicates the data log is full
🔆	Three red flashes	Three quick red flashes indicates the battery is low

3.7 Alarm Ranges

The tracer is equipped to trigger alarms at one of 3 distances from other tracers. These ranges are referred to as **Range A**, **Range B**, and **Range C**. Each range has its own configurable RSSI threshold, providing flexibility to trigger different alarm indicators depending on distance from remote tracers. Using the BT710 mobile app interface, tap and drag the letter corresponding to the range to adjust, then fill in corresponding fields below to setup the alarm configuration. Alarm 1 and Alarm 2 options allow setting different alarm indicators based on the amount of time a remote tracer has been within the specified RSSI range.

The ranges are limited to be at least 4dBm apart from each other. The minimum range is -30 dBm (only **Range A** can be set to this value, due to the 4dBm range threshold difference). The maximum alarm range is -95 (only **Range C** can be set to this value, due to the 4dBm range threshold difference).
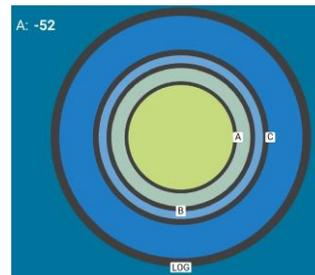
3.8 Alarm Styles

Several indicator styles are available providing control over how alarm LEDs, audible tones, and vibration motor feedback are activated when an alarm is triggered. These styles are configurable using the Alarms tab of the BT710 mobile application. When configuring the alarm style, the BT710 mobile application will trigger the new alarm style on the BT710 tracer to show the new alarm style (note, "Save Changes" must still be pressed in order to apply the new alarm style).

Alarms are defined both by duration of proximity (Alarm 1 vs. Alarm 2) and by signal strength (RSSI) of each remote tag. Indicator styles may be selected independently for Alarm 1 and Alarm 2 conditions. The following table (Table 2) describes the styles available for each alarm indicator.

Table 2: Alarm indicator styles

Indicator	Style	Description/Pattern
Red Alarm LEDs	Off	Red Alarm LEDs remain off
	Style 1	LEDs are lit in a clockwise pattern
	Style 2	All red LEDs blink in unison
	Style 3	Top/bottom fast blink; left/right fast blink
	Style 4	Left/right fast sweep of red LEDs
Speaker Indicator	Off	No tones are emitted by the speaker
	Style 1	Three fast chirps
	Style 2	Three buzzer tones
	Style 3	Two double-beep tones
	Style 4	Four bright tones, repeated two times
Vibe Indicator	Off	No vibration will be triggered by the vibration motor
	Style 1	One long vibration
	Style 2	Two vibrations
	Style 3	Several short-pulsed vibrations
	Style 4	One long ripple vibration
Alarm Intensity	Low	Lowers intensity of speaker and vibration indicators
	High	Normal intensity of speaker and vibration indicators

3.9 Care and Maintenance

The tracer can be cleaned with a mild, non-abrasive detergent. The tracer is not IP-rated/waterproof, so do not immerse it in water or cleaning fluids.

The tracer does not require any calibration.

4   CONTACT TRACER ARCHITECTURE

The Sentrius™ BT710 advertises an identifying beacon used by other nearby BT710 contact tracers and gateways to log proximity to the tracer. This advertisement includes information such as a user configurable device identifier, a hardware identifier, and current status of the Bluetooth contact tracer.

You can configure a tracer using a Bluetooth connection and the Laird Connectivity Sentrius™ BT710 mobile application.

4.1   Bluetooth Advertisements

The following tables describe the data available in the advertisements of the BT710 tracer. Once a tracer is configured, it is possible for a mobile app or gateway to connect to the BT710 device for configuration of parameters and/or data log download.

The BT710 device can be configured to transmit with an output power of -20 to +8 dBm.

4.1.1   1M PHY

Table 3: 1M PHY

Byte	Description	Value/Notes
0	0x02	Length (0x02)
1	GAP_ADTYPE_FLAGS	Type (0x01)
2	GAP_ADTYPE_FLAGS_BREDR_NOT_SUPPORTED	Data
3	0x1b (27)	Length (length is not included in overall length)
4	GAP_ADTYPE_MANUFACTURER_SPECIFIC	0xFF (Type)
5	Company ID 1	0x77 (Laird)
6	Company ID 2	0x00
7	Protocol ID LSB	0x81 (Identifies the advertisement format)
8	Protocol ID MSB	0xFF
9	Network ID LSB	Assigned during configuration. Default is 0xFFFF
10	Network ID MSB	This can be used for filtering advertisements
11	Flags LSB	Indicate the current state of the system
12	Flags MSB	See: 4.1.4 Flags
13-18	Device ID	Random static Bluetooth address (0 is LSB)
19	Ad Record Type	See: 4.1.3 Ad Record Types
20-30	Ad Record Data	Determined by value of Ad Record Type above

4.1.2   1M PHY Scan Response

Table 4: 1M PHY scan response

Byte	Description	Value/Notes
0	DEVICE_NAME	0x08 or 0x09
1-11	Device name, e.g. BT710-AABB	Max Complete Name (0x09) is 12 characters

4.1.3   Ad Record Types

Table 5: Advertisement record types

ID	Event	Data	Format
0x00	Tracking Ad		

Americas: +1-800-492-2320
Europe: +44-1628-858-940
Hong Kong: +852 2923 0610

4.2 Bluetooth Advertisement Field Details

4.2.1 *Company ID* Field

This is always 0x0077, the Company ID for Laird Connectivity.

4.2.2 *Protocol ID* Field

This is always 0xFF81, the protocol for the BT510-CT and BT710 tracers.

4.2.3 *Network ID* Field

This is user programmable via the NETWORK_ID parameter. Defaults to 0xFFFF.

4.2.4 *Flags* Field

Table 6: Flags field

Flag Bit	Name		Description
Bit 0 (0x0001)	HAS_EPOCH_TIME	0	Clock time not set
		1	Clock time set
Bit 1 (0x0002)	HAS_LOG_DATA	0	Data log not ready
		1	Data log ready for download
Bit 2 (0x0004)	RESERVED	0	Reserved
		1	Motion Reserved
Bit 3 (0x0008)	LOW_BATTERY	0	Battery good
		1	Battery low
Bit 4 (0x0010)	DATALOG_FULL	0	Datalog is not full
		1	Datalog is full

4.2.5 *Device ID* Field

This is the device ID currently advertised by the BT710.

4.2.6 *Ad Record Type* and *Ad Record Data* Fields

The Ad Record Type byte indicates the format of the remaining bytes to follow in the advertisement data (the Ad Record Data). The list of defined Ad Record Types and corresponding data format is displayed in the following table (Table 7).

Table 7: 0x10 - Ad Tracking Record

Field Name	Size (Bytes)	Data Type	Description
Profile	1	uint8	User programmable device type category
Epoch Time	4	uint32	Time since a known reference point in seconds
TX Power	1	int8	TX power setting of the radio (-40 to 8)
Motion	1	uint8	0: No motion present, 1: Motion present
HW Model ID	1	uint8	0x00 – BT510 0x10 – BL654 DVK 0x20 – BL653 DVK 0x30 – BT710 0x40 – MG100 0x50 – IG60
Battery Voltage	1	uint8	Battery voltage divided by 16 (in millivolts)
Firmware Version	1	uint8	4 MSB bits: Major version, 4 LSB bits: Minor version

Field Name	Size (Bytes)	Data Type	Description
Firmware Build	1	uint8	Build version

4.3 Tracer Configuration

The tracer has several parameters that can be used to tailor it for each use case.

The table below lists the common parameters that can be adjusted by the user based on the use case the tracer is being applied to. These parameters can be updated using the BT710 mobile application.

Parameter Name	Default Value	Description
General Settings		
Tx Power	+8 dBm	Transmit power of BLE radio (-20dBm to +8dBm)
Low Battery Threshold	2600 mV	Voltage level triggering a low battery indication
Distance Filter	1	RSSI filter selection (0: none, 1: average)
Antenna Option	Ant 1 TX, Both RX	Select how antennas are used for transmit (TX) and receive (RX)
Active Scan Interval	10 sec	Seconds between scan/discovery events (Active Mode)
Active Scan Duration	2 sec	How long to scan for/discover nearby tracers (Active Mode)
Active Ad Interval	250 ms	Milliseconds between advertisement TX events (Active Mode)
Active Motion Timeout	300000 ms	Milliseconds of no motion to trigger "Non-Active Mode" from "Active Mode"
Non-Active Scan Interval	120 sec	Seconds between scan/discovery events (Non-Active Mode)
Non-Active Scan Duration	2 sec	How long to scan for/discover nearby tracers (Non-Active Mode)
Non-Active Ad Interval	500 ms	Milliseconds between advertisement TX events (Non-Active Mode)
Non-Active Motion Timeout	600000 ms	Milliseconds of no motion to trigger "Power-Save Mode" from "Non-Active Mode"
Non-Active Motion Detect	500 ms	Milliseconds of motion to wake from "Non-Active Mode"
Power Save Scan Interval	3600 sec	Seconds between scan/discoveryevents (Power-Save Mode)
Power Save Scan Duration	1 sec	How long to scan for/discover nearby tracers (Power-Save Mode)
Power Save Ad Interval	1000 ms	Milliseconds between advertisement TX events (Power-Save Mode)
Power Save Motion Detect	500 ms	Milliseconds of motion to wake from "Power-Save Mode"
Logging		
Profile	0	User assignable value for categorizing tracer types
Network ID	65535	Network identifier for grouping tracers and gateways
Log Interval	2 min	How often data log is available for download (if present). Datalogging and data collection is disabled if this value is set to 0.
Contact Period	86400 sec	Period being monitored for a contact event
Discovery Duration	300 sec	Time a tracer must be observed before logging to storage
Tracking Duration	1800 sec	Maximum log time for each tracer per contact period
Logging Threshold	- 99 dBm	Tracers with RSSI value less than this threshold will be ignored
Alarms		
RANGE A		

Parameter Name	Default Value	Description
Range A Proximity Alarm 1 Timer	3 sec	Seconds of proximity to a remote tracer before triggering alarm 1
Range A Alarm 1 RSSI Threshold	-52 dBm	Trigger alarm if a tracer is detected with signal greater than this value
Range A Alarm 1 Red LED Indicator	Style 1	Selects style for the red LED indicators when alarm 1 is triggered
Range A Alarm 1 Speaker Indicator	Style 4	Selects style for the speaker indicator when alarm 1 is triggered
Range A Alarm 1 Vibe Indicator	Off	Selects style for the vibration motor indicator when alarm 1 is triggered
Range A Alarm Intensity	High	Normal intensity speaker/vibe indicator level
Range A Proximity Alarm 2	600 sec	Seconds of proximity to a remote tracer before triggering alarm 2
Range A Alarm 2 Red LED Indicator	Style 1	Selects style for the red LED indicators when alarm 2 is triggered
Range A Alarm 2 Speaker Indicator	Style 1	Selects style for the speaker indicator when alarm 2 is triggered
Range A Alarm 2 Indicator Styles	Style 4	Selects style for the vibration motor indicator when alarm 2 is triggered
Range A Alarm 2 Intensity	Low	Low intensity speaker/vibe indicator level
RANGE B		
Range B Proximity Alarm 1 Timer	3 sec	Seconds of proximity to a remote tracer before triggering alarm 1
Range B Alarm 1 RSSI Threshold	-60 dBm	Trigger alarm if a tracer is detected with signal greater than this value
Range B Alarm 1 Red LED Indicator	Style 3	Selects style for the red LED indicators when alarm 1 is triggered
Range B Alarm 1 Speaker Indicator	Off	Selects style for the speaker indicator when alarm 1 is triggered
Range B Alarm 1 Vibe Indicator	Off	Selects style for the vibration motor indicator when alarm 1 is triggered
Range B Alarm Intensity	High	Normal intensity speaker/vibe indicator level
Range B Proximity Alarm 2	600 sec	Seconds of proximity to a remote tracer before triggering alarm 2
Range B Alarm 2 Red LED Indicator	Style 3	Selects style for the red LED indicators when alarm 2 is triggered
Range B Alarm 2 Speaker Indicator	Style 3	Selects style for the speaker indicator when alarm 2 is triggered
Range B Alarm 2 Indicator Styles	Off	Selects style for the vibration motor indicator when alarm 2 is triggered
Range B Alarm 2 Intensity	Low	Low intensity speaker/vibe indicator level
RANGE C		
Range C Proximity Alarm 1 Timer	3 sec	Seconds of proximity to a remote tracer before triggering alarm 1
Range A Alarm 1 RSSI Threshold	-71 dBm	Trigger alarm if a tracer is detected with signal greater than this value
Range C Alarm 1 Red LED Indicator	Off	Selects style for the red LED indicators when alarm 1 is triggered
Range C Alarm 1 Speaker Indicator	Off	Selects style for the speaker indicator when alarm 1 is triggered
Range C Alarm 1 Vibe Indicator	Off	Selects style for the vibration motor indicator when alarm 1 is triggered
Range C Alarm Intensity	High	Normal intensity speaker/vibe indicator level

Parameter Name	Default Value	Description
Range C Proximity Alarm 2	600 sec	Seconds of proximity to a remote tracer before triggering alarm 2
Range C Alarm 2 Red LED Indicator	Off	Selects style for the red LED indicators when alarm 2 is triggered
Range C Alarm 2 Speaker Indicator	Off	Selects style for the speaker indicator when alarm 2 is triggered
Range C Alarm 2 Indicator Styles	Off	Selects style for the vibration motor indicator when alarm 2 is triggered
Range C Alarm 2 Intensity	High	Low intensity speaker/vibe indicator level

4.4 Parameter Selection Considerations

The parameters provide flexibility in configuration of timing and operation of the tracer for different use cases. For example, a fixed location asset tracker may be suited to scanning less often than a mobile tracer.

The configuration parameters affect how often the tracer operates in each mode and therefore have a direct impact on responsiveness/latency of the log entries and battery life of the device. These parameters must be considered carefully for the log data to serve the purpose of a specific tracking application.

The highest power usage occurs when the tracer is scanning/discovering other tracers. In this mode, the device is both transmitting its BLE advertisements and has the radio receiver turned on to discover nearby tracers for logging. The defaults target use cases where batteries are changed about once a month. If more time is necessary, the scan interval can be increased (scan less frequently), the scan duration can be decreased (scan for a shorter time period), or the advertising interval can be adjusted to keep the radio in sleep mode more often, thus extending useful battery life. TX power is also a consideration as higher power settings reduce battery life.

Note: Scan interval, scan duration, and ad interval can be set separately for Active mode, Non-Active mode, and Power-Save mode. By increasing the scan interval and reducing the scan duration and ad interval during Non-Active mode and Power-Save mode, the tracer can conserve battery life when motion is not detected. For best power savings, set Power-Save mode scan duration to a value of zero to keep from scanning altogether when the tracer has been idle (no motion) for an extended period.

4.5 Firmware Updates

The BT710 Contact Tracer supports over-the-air (OTA) firmware updates when paired with an appropriate Laird Connectivity mobile application or supporting gateway product. The process uses a standard DFU mechanism that can be incorporated into customer apps/products for compatibility. For more details regarding integration into your own tracking solution, please contact the Laird Connectivity sales team member for your region.

4.6 Proximity Alarms

The tracer implements programmable alarms that can be used to trigger local audio, visual, and haptic indicators when a remote tracer is detected within an RSSI range for a configured amount of time. Each alarm has a parameter indicating the number of seconds a remote tracer must be detected before triggering the alarm indicators and a corresponding RSSI threshold.

Each scan interval, the tracer determines which tracers are within proximity and meet the configured RSSI threshold to begin logging. A counter increases each time that same tracer is observed in a scan. Once **[the number of scan intervals a tracer is detected] x [Scan Interval parameter]** is equal or greater than the configured alarm timer, the alarm indicators are triggered for each subsequent scan that tracer is detected until the configured contact period expires or the remote tracer moves out of proximity.

The following diagram (Figure 4) shows the proximity alarm timeline given default parameter values.
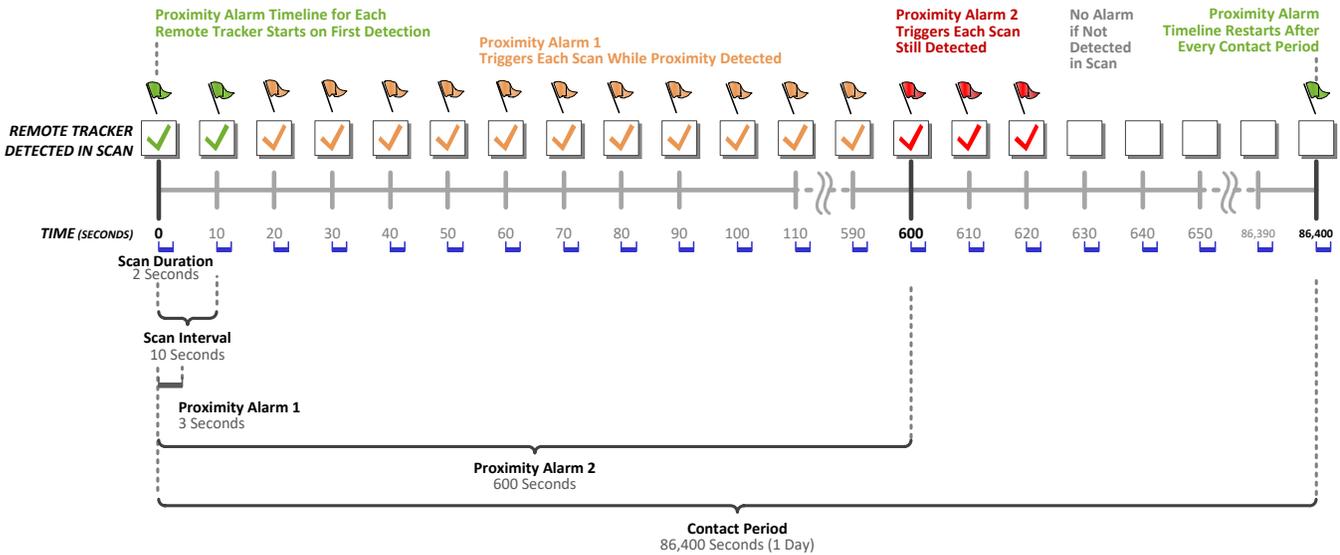
Figure 4 - Proximity alarm timeline

As a tracer detects other remote tracers ("remotes") in a BLE scan, each remote enters into a RAM-based discovery database in order to track the number of scan intervals each is seen for alarming purposes. Each remote has its own timeline from the perspective of the sensing tracer.

Each time a remote is detected in a BLE scan, a count of seconds is added to that remote's total detection time in the database. This number of seconds is equal to the **Active Scan Interval** parameter. If a remote is not detected in a scan, the total detection time in its database entry is not incremented for that scan interval. For example, with default parameters, each scan interval a remote is detected adds **10 seconds** to its total detection time in the database.

After any remote is detected in enough scans such that total detection time crosses a configured alarm threshold, the configured alarm indicators are triggered to alert the user. The alarm continues to trigger each scan interval until no remotes having total detection time longer than the alarm time setting are within range.

Once "Contact Period" seconds passes since the first time a remote is detected, total detection time for that remote is reset to zero in the database, starting a new proximity alarm timeline once it is detected in a future scan.

Note that though alarms can be configured for different ranges (A, B and C), the closest proximity alarm takes priority, meaning if conditions for a range A alarm are met, the range B and range C alarms will not be triggered. Likewise, if a range B alarm condition is met, alarm C will not trigger.

4.7 Data Logging

The BT710 is designed to log data from other compatible tracer devices it observes during its BLE scan operations. The logging functionality can be disabled through the Log Interval parameter (set Log Interval to 0).

The following diagram (Figure 5) shows the data logging timeline and how various parameters affect each logging phase.
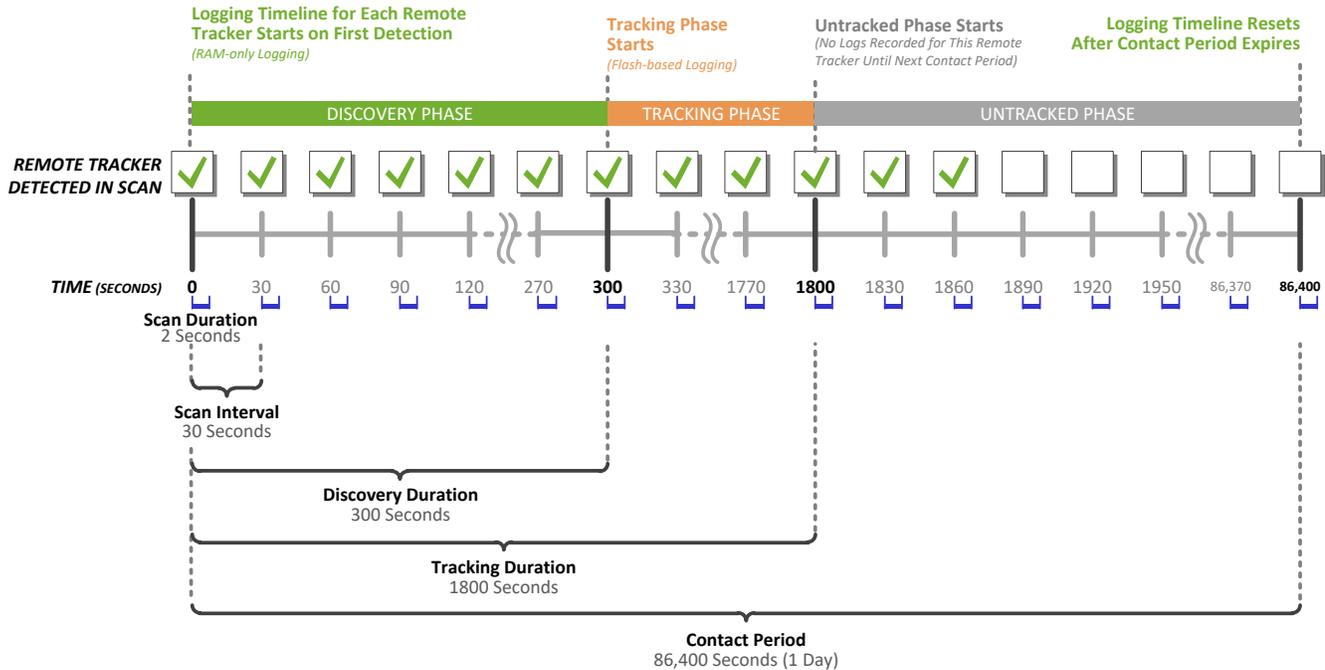

Figure 5 - Data logging timeline

As a tracer detects remote tracers ("remotes") in each BLE scan, the discovery database is updated and the remote steps through three phases of logging throughout a single Contact Period.

- **Discovery Phase** – Remote tracers are tracked in a RAM-only discovery database for each scan they are detected. Once the total detection time is greater than the configured Discovery Duration, the records for the remote are committed to a Flash-based log and the remote enters Tracking Phase. If a remote is only detected fewer scan intervals than the configured Discovery Duration within a given Contact Period, the remote is not logged to Flash. This is useful for situations where tracers are in proximity for very brief periods of time and do not warrant storage to the Flash-based log. Discovery Phase stores a maximum of 10 records per remote before automatically moving into Tracking Phase.

- **Tracking Phase** – Remote tracers in the Tracking Phase get an additional record in the Flash-based log for every scan interval they are detected, up to the maximum records that can be recorded for the duration of the Tracking Phase (set with the Tracking Duration parameter).

- **Untracked Phase** – If a remote tracer has been detected for the entirety of the Tracking Phase, no more records are made for that remote until the Contact Period expires or that entry is collected by a gateway. This limits the maximum number of Flash log records that are used by a single remote per Contact Period, allowing remaining Flash space to be used for detection and logging of other remote devices during the Contact Period.

4.7.1 Data Log Entries

The number of unique remote tracers that can be logged is a function of the Scan Interval and Tracking Duration parameters. For example, with Scan Interval of 30 seconds, Tracking Duration of 15 minutes and Contact Period of 24 hours, up to 50 remote tracers can be logged for 1 week before the log is full. Once the log is full, the oldest entries are overwritten with new entries in first-in first-out order. The following data is logged at each scan interval from a remote tracer's advertisement:

Device ID	Timestamp	Status	RSSI	Motion Status	TX Power

Figure 6 - Data logged for each remote tracer detected in BLE scans

5 MOBILE APPLICATION

5.1 Overview

The Sentrius™ BT710 mobile application allows a user to configure tracer parameters and update firmware.

5.2 Using the Sentrius™ BT710 Mobile App

To use the Sentrius™ BT710 mobile application, follow these steps:

1. From the applicable app store (Apple or Android) search for and install the Sentrius™ BT710 mobile application on your mobile device.
2. To connect to the BT710, make sure it is in Active mode.
3. Tap **FIND BT7 DEVICE** to discover the tracer(s) within range of the mobile device.
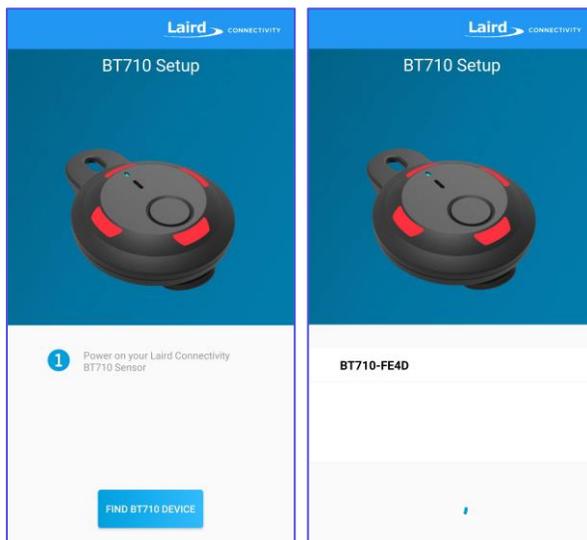
Figure 7 - Scan for BT710 tracers

4. Select the tracer to connect. Tracer names start with BT710 and end with the last four digits of the BLE ID as printed on the device QR code. Once connected, the app displays the current parameter values configured for the tracer. Parameters are grouped using tabs near the bottom of the page.
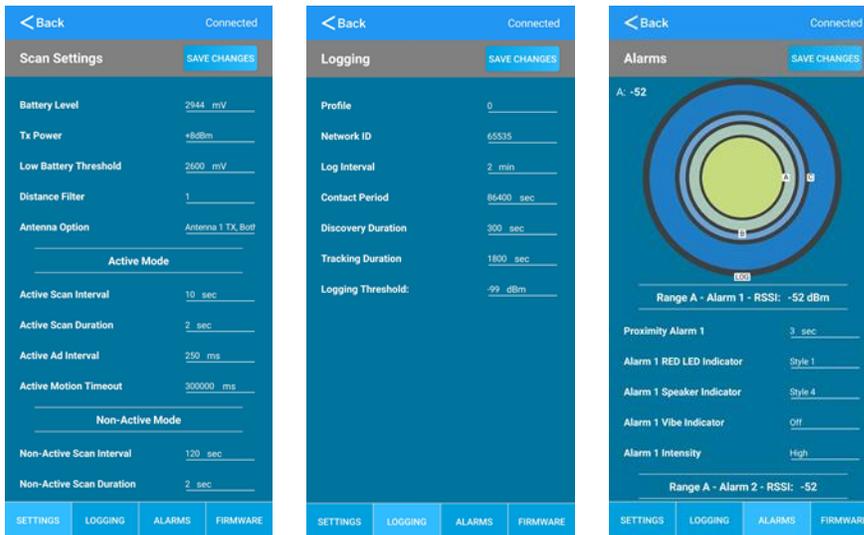
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Americas: +1-800-492-2320
Europe: +44-1628-858-940
Hong Kong: +852 2923 0610

Figure 8: Current parameter values

6 REGULATORY

Note: For complete regulatory information, refer to the BT710 Regulatory Information document which is also available from the BT710 product page.

The BT710 holds current certifications in the following countries:

Country/Region	Regulatory ID
USA (FCC)	SQGBT710
Canada (ISED)	3147A-BT710
EU	N/A

7 ORDERING INFORMATION

Part Number	Description	Packaging
450-00122-K1	Sentrius^TM BT710 Bluetooth Contact Tracer, with Clip, Single	Single (1)
450-00134-K1	Sentrius^TM BT710 Bluetooth Contact Tracer, with Vibration, with Wrist Strap, Single	Single (1)
450-00122B	Sentrius^TM BT710 Bluetooth Contact Tracer, with Clip, BULK	Bulk (100)
450-00059B	Sentrius^TM BT710 Bluetooth Contact Tracer, BULK	Bulk (100)
450-00134B-K1	Sentrius^TM BT710 Bluetooth Contact Tracer, with Vibration, with Wrist Strap, BULK	Bulk (100)

8   LABEL INFO
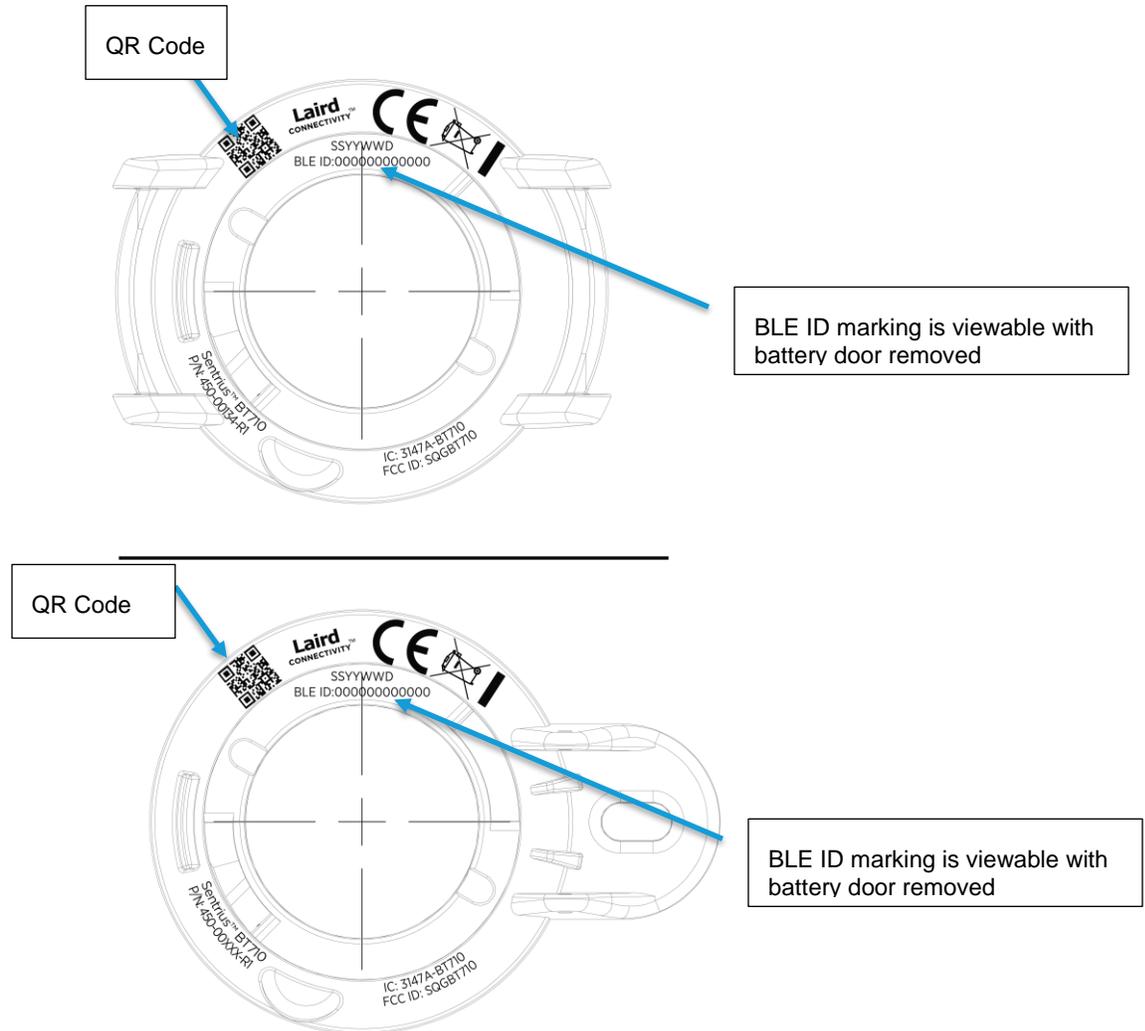
Figure 9-Laser Etching on BT710 Contact Tracers

The QR Code contains the part number, hardware revision, date code, and BLE ID (ALL Caps)

Example Readout: 450-00122;1;0920542;CB09AE5B8D7F

9 FREQUENTLY ASKED QUESTIONS

Please refer to the support FAQs online which can be found here:- https://www.lairdconnect.com/support/faqs

10 ADDITIONAL ASSISTANCE

Please contact your local sales representative or our support team for further assistance:

Laird Connectivity
Support Centre: https://www.lairdconnect.com/resources/support

Email: wireless.support@lairdconnect.com

Phone: Americas: +1-800-492-2320
Europe: +44-1628-858-940
Hong Kong: +852 2923 0610

Web: https://www.lairdconnect.com/iot-devices/iot-sensors/sentrius-bt710-contact-tracer-multi-sensor

https://www.lairdconnect.com/bt7x0-series

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