




Bluetooth® Real-Time Locating Library 3.2.10.0 GA

Gecko SDK Suite 3.2

October 25, 2023

Silicon Labs is a leading vendor in Bluetooth hardware and software technologies, used in products such as sports and fitness, consumer electronics, beacons, and smart home applications.

The Real-Time Locating (RTL) library contains features for Angle of Arrival estimation and spatial positioning. The software library comes with a C-programming language API for Windows (x86_64) and Linux (ARM Cortex A, x86_64) hosts.

Bluetooth

KEY FEATURES

- General quality improvements

The RTL Library is released with the Bluetooth SDK. These release notes cover the following version(s):

- Real-Time Locating Library 3.2.10.0 in Bluetooth SDK 3.2.10.0 released on October 25, 2023 (underlying Bluetooth changes only)
- Real-Time Locating Library 3.2.9.0 in Bluetooth SDK 3.2.9.0 released on September 5, 2023 (underlying platform changes only)
- Real-Time Locating Library 3.2.8.0 in Bluetooth SDK 3.2.8.0 released on July 13, 2023 (underlying Bluetooth changes only)
- Real-Time Locating Library 3.2.6.0 in Bluetooth SDK 3.2.6.0 released on March 29, 2023 (underlying Bluetooth changes only)
- Real-Time Locating Library 3.2.5.0 in Bluetooth SDK 3.2.5.0 released on January 11, 2023 (underlying Bluetooth changes only)
- Real-Time Locating Library 3.2.4.0 in Bluetooth SDK 3.2.4.0 released on October 13, 2021 (underlying Bluetooth changes only)
- Real-Time Locating Library 3.2.3.0 in Bluetooth SDK 3.2.3.0 released on September 24 2021 (Bluetooth SDK update only)
- Real-Time Locating Library 3.2.2.0 in Bluetooth SDK 3.2.2.0 released on September 8, 2021
- Real-Time Locating Library 3.2.1.0 in Bluetooth SDK 3.2.1.0 released on July 21, 2021
- Real-Time Locating Library 3.2.0.0 in Bluetooth SDK 3.2.0.0 released on June 16, 2021

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1 New Items

Added in release 3.2.0.0

Dual-Polarized antenna support for CoreHW PCB4 and PCB8 boards. The board package files need to be requested through Silicon Labs support.

2 Improvements

Changed in release 3.2.0.0

The Angle Feedback mechanism in the multi-locator algorithm is improved.

3 Fixed Issues

Fixed in release 3.2.2.0

ID #	Description
720870	Add API for locator position and orientation update
715289	Split Link Layer CTE component into two subcomponents for TX and RX. Application can only include necessary capabilities to save memory

Fixed in release 3.2.1.0

ID #	Description
712526	Fixed an issue with CTE (AoA/AoD) where device may enter into hardfault if connectionless CTE or Silicon Labs CTE was enabled before connection creation

Fixed in release 3.1.0.0

ID #	Description
653321	In certain environments, the elevation reading might get fixed to 89 degrees
653422	Visualization script in <code>aoa_multilocator_gui</code> is missing implementation for showing visualization lines for angles from locators
653412	Visualization script <code>aoa_multilocator_gui</code> may occasionally fail with "RunTimeError: dictionary changed size during iteration"
706445	AOA host app cannot be built on windows
658208	Fix REAL_TIME modes to also handle angle data between 179 and 180 degrees.

4 Known Issues in the Current Release

Issues in bold were added since the previous release.

ID #	Description	Workaround
375152	In heavy multipath conditions, the line-of-sight signal is not always detected correctly. In some cases this may mean large errors in both azimuth and elevation readings.	None

5 Deprecated Items

None

6 Removed Items

None

7 Using This Release

7.1 Installation and Use

For instructions on developing with the RTL library, see *AN1296: Application Development with Silicon Labs' RTL Library* and the API reference included with the documentation installed through Simplicity Studio in the Bluetooth SDK.

7.2 Support

Development Kit customers are eligible for training and technical support. Use the [Silicon Labs Bluetooth LE web page](#) to obtain information about all Silicon Labs Bluetooth products and services, and to sign up for product support.

Contact Silicon Laboratories support at <http://www.silabs.com/support> or through links on the Simplicity Studio Welcome page.

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Silicon Laboratories Inc.
400 West Cesar Chavez
Austin, TX 78701
USA

www.silabs.com