



NOW WITH BLUETOOTH 5

The SaBLE-x-R2 is better with Bluetooth 5. The latest revision of the Bluetooth standard brings four times the range, twice the speed, and eight times the message capacity to low energy devices. These enhancements bring better performance, increased battery life, and a better experience to Bluetooth LE applications. The SaBLE-x-R2 takes full advantage of these upgrades, as well as includes increased availability flash memory for application usage and OTA capabilities. And since it's pin-compatible with the previous SaBLE-X, it provides a simple, easy hardware upgrade path to Bluetooth 5 for customers of the previous SaBLE-x module.

PRODUCT DESCRIPTION

SaBLE-x-R2 is a certified Bluetooth® Low Energy module built to deliver unmatched RF and power performance. This module can deliver over four times the signal range of previous generation Bluetooth Low Energy technology and can operate at nearly 1/3 the average power for a one-second connection interval when compared to previous Bluetooth LE modules. Based on the new TI SimpleLink™ Bluetooth® Low Energy CC2640R2F wireless microcontroller (MCU), this self-contained module provides unmatched integration, including an ARM Cortex-M3 application processor, ARM Cortex-M0 processor for the RF core, sensor processor engine, flashmemory, and high- and low-speed clocks.

FEATURES AND BENEFITS

- Features ARM Cortex-M3 processor for host applications and an ARM Cortex-M0 dedicated for the RF core
- Dedicated sensor processor for even lower power operation
- Integrated flash memory, Bluetooth low energy stack, and high- and low-speed clocks
- Certifications: FCC, ISED (Canada), EU, UKCA, KC, Giteki (Japan), RCM (AS/NZS)
- Bluetooth 5 certified and SIG listed — Declaration ID # D035147
- Multiple certified antenna options: Trace, Dipole, FlexPIFA™, mFlexPIFA™, and FlexNotch™
- Pin for pin hardware drop-in from the original SaBLE-x modules
- REACH and RoHS compliant

PRACTICAL APPLICATIONS

- Sensors
- Lighting
- Security
- Home automation
- Sports and fitness

SPECIFICATIONS

Feature	Specification
Footprint	11.6 mm x 17.9 mm x 2.3 mm
Operating Temperature	-40 to +85° C
Operating Voltage	1.8 V to 3.8 V
Output Power	+5 dBm
Receive Sensitivity	-96 dBm @ 0.1% BER
Average Power Consumption	<10 µA for one second Bluetooth LE connection interval

ORDERING INFORMATION

Part	Description
450-0177C	SaBLE-x-R2 Module, PCB trace antenna (cut tape)
450-0177R	SaBLE-x-R2 Module, PCB trace antenna (tape & reel)
450-0178C	SaBLE-x-R2, External antenna port (cut tape)
450-0178R	SaBLE-x-R2, External antenna port (tape & reel)
450-0184	SaBLE-x Evaluation Kit with TI EM adapter and Arduino adapter
450-0185	SaBLE-x Evaluation Kit with External antennas, TI EM adapter and Arduino adapter

