

SaBLE-x™ 2.4 GHz Bluetooth® Smart Module

PRODUCT DESCRIPTION

SaBLE-x is a certified Bluetooth® Smart module built to deliver unmatched RF and power performance. This module can deliver over twice the signal range of previous generation Bluetooth low energy technology, and can operate at nearly 1/3 the average power for a 1 second connection interval when compared to previous Bluetooth low energy modules. Based on the new TI SimpleLink™ Bluetooth® Smart CC2640 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, FLASH memory, and high- and low-speed clocks.

Serial-to-BLE API

Serial-to-BLE for the SaBLE-x was created by developers, for developers. This free PC-based application features tools & resources to accelerate your development efforts with the SaBLE-x module, highlighted by a simple, comprehensive API command set to enable serial-to-BLE communications from a host MCU through the SaBLE-x module.



Actual size (11.6 mm x 17.9 mm)

FEATURES AND BENEFITS

- Latest silicon technology delivers 7 dBm link margin improvement vs. current *Bluetooth* low energy modules
- 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
- FCC (USA), IC (Canada), ETSI (Europe), Giteki (Japan), RCM (AU/NZ) Module Certification
- Multiple certified antenna options
Trace, Dipole, FlexPIFA™, and FlexNotch™
LSR offers in-house certification of additional antennas at little or no cost

Practical Applications:

Sensors, Lighting, Security, Home Automation, Sports and Fitness

SaBLE-x MODULE PERFORMANCE

SPECIFICATION	VALUE
Footprint	11.6 mm x 17.9 mm x 2.3 mm
Operating Temp	-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 uA for 1 second BLE connection interval

For full specifications on SaBLE-x, please refer to datasheet.

TECHNICAL DETAILS

Bluetooth 4.2 compliant
Integrated ARM Cortex-M3 MCU, dedicated Cortex-M0 MCU for RF core, and dedicated Sensor Processor Engine
128 kB FLASH and 20 kB SRAM on-module memory

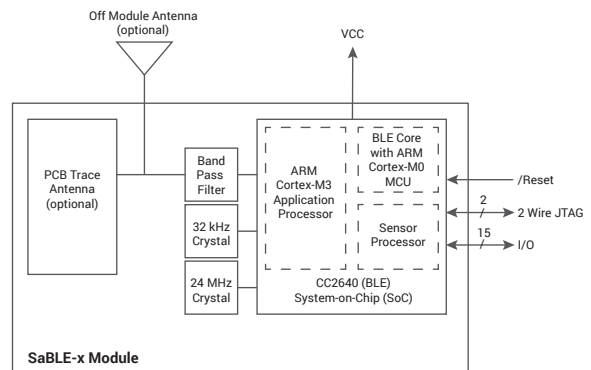
KEY FEATURES

Host or hostless mode operations
Highly-configurable I/O that supports all common peripherals (UART, SPI, I ² C, PWM, ADC, etc.)
LSR Developer Tool Suite software provides tools to simplify development, including the Serial-to-BLE API

ORDER INFORMATION

PART NUMBER	DESCRIPTION
450-0119C	SaBLE-x Module, PCB Trace Antenna, CT
450-0119R	SaBLE-x Module, PCB Trace Antenna, TR
450-0144C	SaBLE-x Module, External Antenna Port, CT
450-0144R	SaBLE-x Module, External Antenna Port, TR
450-0141	SaBLE-x Development Kit
450-0150	SaBLE-x Evaluation Kit
450-0151	SaBLE-x Evaluation Kit with External Antennas

These LSR products are all REACH and EU ROHS compliant.



LSR is the leader in Wireless Product Development, offering true end-to-end solutions through its array of services and technical expertise.

Design Services

LSR delivers complete system solutions from concept to manufacturing. We are your wireless M2M solutions partner, providing complete turnkey services and solutions.

- RF Design/Engineering
- Software/Firmware Design
- Antenna Design
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification

At LSR, we understand it is critical for your company to have a compliant product supported by the appropriate documentation, ready for deployment into the market. LSR provides the experience and knowledge to provide quality test services that meet your timeline and budget.

- On-Site FCC / IC /CE EMC Certification
- Wireless & Antenna Testing
- EMC Testing
- International Testing Services

Wireless Products

LSR offers the fastest, lowest cost way to add wireless capabilities to your product concept. LSR's fully-certified modules and antennas accelerate your time-to-market and support the full breadth of communication technologies, including:

- Wi-Fi®
- Bluetooth®
- Bluetooth® Smart
- ZigBee®
- 802.15.4 & proprietary protocols