

## RSL10 SIP

# System-in-Package, Bluetooth® 5.2 Certified, SDK 3.7



## Product Overview

For complete documentation, see the data sheet.

The RSL10 SIP offers the easiest way to bring the industry's lowest power Bluetooth Low Energy MCU to wireless applications. [Bluetooth 5.2 certified](#), and fully certified to worldwide wireless standards, the RSL10 SIP significantly reduces time to market by removing the need for any additional antenna design considerations.

The ready-to-use RSL10 SIP features an integrated antenna, [RSL10 Radio SoC](#), and all passive components in a single, miniature package.

RSL10 SIP Enables Smart Healthcare Beacons. Learn more about it through the [Intelligent Locations Case Study](#).

The **RSL10 Software Development Kit (SDK)** enables rapid development of ultra-low power Bluetooth Low Energy applications by leveraging convenient abstraction, drivers and sample applications from Blinky to complete BLE peripherals, and everything in between.

SDK key features:

- Free Eclipse®-based ON Semiconductor IDE plus support for Keil Vision® and IAR Embedded Work Bench®
- Complete Bluetooth Low Energy protocol stack
- FOTA (Firmware Over The Air) with [Android™](#) and [iOS](#) apps
- FreeRTOS™

Downloads	Software Product	Description	Version	Date Updated
<a href="#">Download</a>	RSL10 Getting Started Guide	Start here	10	Aug 2022
<a href="#">Download</a>	onsemi IDE Installer	Eclipse-based onsemi IDE	4.2.1	Aug 2022
<a href="#">Download</a>	RSL10 Software Package	RSL10 CMSIS-Pack and release notes	3.7	Aug 2022
<a href="#">Download</a>	RSL10 Documentation Package	RSL10 hardware and software documentation	3.7	Aug 2022
<a href="#">Download</a>	BLE Explorer	PC application that acts as a Bluetooth central to your peripheral device (requires <a href="#">RSL10-USB001GEVK</a> )	1.9	Aug 2022
<a href="#">Download</a>	RF Tools	PC application to help test, tune and validate Bluetooth Low Energy RF PHY performance	1.1	Aug 2022
<a href="#">Download</a>	RSL10 Software Utility Apps	Extras for FOTA, flash loader and Ezairo	3.6	Dec 2021
<a href="#">Download</a>	RSL10 LPDSP32 Software Package	Software for RSL10 LPDSP32	3.1	Dec 2019

Visit the [Community Forums](#) to learn more and join the conversation.

## Features

- Fully-Certified to Worldwide Regulatory Standards FCC (U.S)ISED (Canada)CE (Europe) MIC (Japan)KCC (Korea)
- Ultra-Low-Power:- Industry's lowest power consumption in Deep Sleep Mode (62.5 nW) and Rx in Receive Mode (7 mW)- Industry's best EEMBC® ULPMark™ scores (1090 ULPMark CP @ 3 V; 1260 @ 2.1 V)
- Complete Solution - Fully-integrated antenna- RSL10 Radio SoC - All passive components
- Advanced Multi-Protocol Wireless Functionality - Supports Bluetooth Low Energy and 2.4 GHz proprietary/custom protocols - Rx Sensitivity: -93 dBm - Transmitting Power: -17 to 0 dBm - Supports Firmware Over The Air (FOTA)
- Other Key Technical Features - Built-in power management- Advanced dual-core architecture - 1.1 to 3.3 Voltage Supply Range- 384 kB Flash, 76 kB Program Memory, 88 kB Data Memory- IP protection feature to secure flash contents - Configurable analog and digital sensor interfaces (GPIOs, LSADs, I2C, SPI, PCM)



## Applications

- IoT Edge-Node Applications
- Wearables
- Energy Harvesting
- Automotive Applications

## End Products

- Fitness and Trackers/ Wellness Monitors
- Smart Watches
- Smart Locks
- Connected Lighting

## Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Data Transmission Standard	Frequency Band (MHz)	Carrier Frequency (MHz)	Package Type
NCH-RSL10-101S51-ACG	7.7846	 	Active		2400-2480	2400-2480	SIP-51

## Application Diagram

