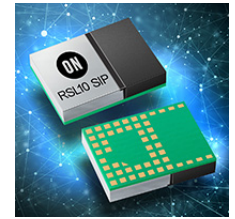




## Product Overview

### RSL10 SIP: System-in-Package, Bluetooth® 5 Certified

For complete documentation, see the data sheet.



The RSL10 SIP offers the easiest way to bring the industry's lowest power Bluetooth® Low Energy to wireless applications. Bluetooth 5 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. 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. Key features: Free Eclipse-based ON Semiconductor IDE plus support for Keil uVision® and IAR Embedded Work Bench® Complete Bluetooth Low Energy protocol stack Bluetooth Low Energy mesh networking FOTA (Firmware Over The Air) with Android mobile app on Google Play FreeRTOS. Container {box-sizing: border-box; -moz-box-sizing: border-box; -webkit-box-sizing: border-box; padding: 10px; width: 100%;}#button1:hover{text-decoration: none !important; color: white !important;}table.Software, tr.Software, td.Software{padding: 10px; width: auto;}Title\_1\_soft{font-family: "Franklin Gothic Medium"; font-size: 13px; color: black; text-align: left;}Button\_1\_soft{font-family: "Franklin Gothic Medium"; background:#54b948; box-shadow: 5px 5px 10px #999; border: 2px solid #54b948; border-radius: 5px; color: black !important; font-size: 12px; padding: 0.4em; text-align: center; cursor: pointer; margin: 0.5em; text-decoration: none;}Download RSL10 Getting Started GuideDownloadRSL10 Documentation PackageDownloadRSL10 Software Utility AppsDownloadON Semiconductor IDE InstallerDownloadRSL10 Bluetooth Mesh PackageDownloadRSL10 LPDSP32 Software PackageDownloadRSL10 Software PackageDownloadRSL10 USB Dongle BLE Explorer

## Features

- Fully-Certified to Worldwide Regulatory Standards FCC (U.S.)CE (Europe) IC (Canada) KCC (Korea)MIC (Japan)
- 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
- Bluetooth Low Energy Technology
- Energy Harvesting
- Wearables

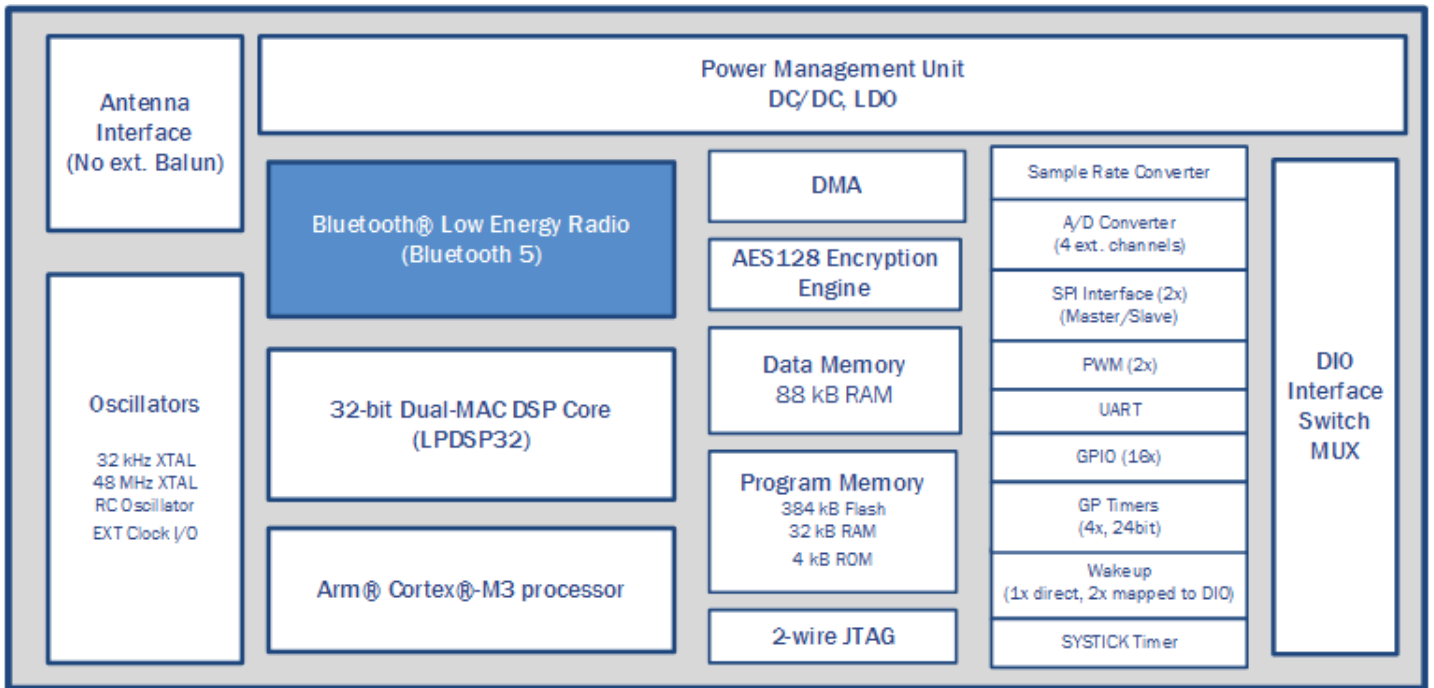
## End Products

- Fitness and Trackers/ Wellness Monitors
- Smart Watches
- Smart Locks
- Appliances (e.g., A/C, fans, etc.)
- Lighting Applications

## Part Electrical Specifications

Product	Compliance	Status	Data Transmission Standard	Frequency Band (MHz)	Carrier Frequency (MHz)	Package Type
NCH-RSL10-101S51-ACG	Pb-free Halide free	Active	Bluetooth Low Energy RF	2400-2480	2400-2480	SIP-51

## Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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