# Qualconn

# Qualcomm<sup>®</sup> Bluetooth Low Energy 101x Starter Development Kit

Entry level, expandable and fully featured development kit for Bluetooth low energy products.

The CSR101x Starter Development Kit is a simplified yet comprehensive kit designed for developers and designers who need to get prototypes of their Bluetooth low energy (LE) products up and running fast, then move quickly to production.

Three variants of the starter kit are available—CSR1010, CSR1011 and CSR1012, which provide a complete set of tools for software development, board design and production test.

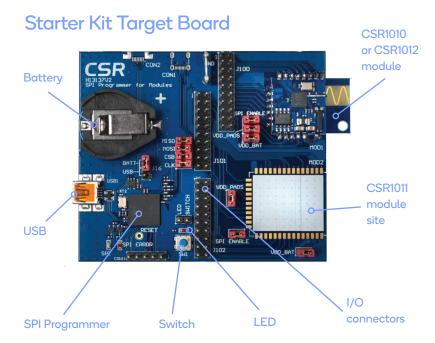
The Bluetooth low energy platform provides a built-in processor to run the customer application as well as the qualified Bluetooth single-mode stack and radio. Chips can run directly from a 3V coin cell, and connect directly to a PCB antenna. The CSR101x platform has been optimized for easy development and low cost designs with minimal external components.

Kits are available to purchase online from our Sales and Solution Providers and network of distributors, representatives, module suppliers and design houses.

Qualcomm Technologies International, Ltd. (QTIL) is an industry leader in delivering high quality connectivity experiences that help differentiate devices in the Internet of Things. More than singular solutions, we develop flexible, robust product platforms combining silicon, software, and services to provide customers a complete connectivity platform for success.

### **Kit Contents**

- Target Board
- Mini-USB cable to connect to host PC USB port
- Setup guides
- CSR101x Starter Dev Kit CD-ROM



- Factory-fitted with CSR1010, CSR1011 or CSR1012 module
- USB or CR2032 battery powered (link selectable)
- USB SPI interface to development PC
- 1x push-button
- 1x LED
- 1x Header for CSR1010/CSR1012 I/O
- 2x Headers for CSR1011 I/O
- 80mm x 68mm PCB area



## **Bluetooth Low Energy Applications**



### **Features**

- Target board with CSR101x IC on reference module, USB programming interface and interfaces for breaking out I/O to application-specific sensors and actuators
- CSR1010, CSR1011 and CSR1012 variants
- Fully licensed xIDE software development environment
- On-board SPI-Debug and programmer
- Example applications for most of the Bluetooth profiles and custom profiles such as Serial-over-GATT and AirFuel wireless charging
- Example code and libraries for iOS and Android platforms
- Hardware design guidelines
- Manufacturing packs for module reference designs
- Production test and configuration tools
- The target board is normally powered from the host USB connection but can also be run standalone from an on-board coin cell (not included) to allow power

Product	Part Number
CSR1010 Starter Dev Kit	DK-CSR1010-10169
CSR1010 Dev Board	DB-CSR1010-10137
CSR1011 Dev Board	DB-CSR1011-10139

### **Related Products**

CSR1010/1011 Development Kits CSRmesh™ Development Kit Proximity Beacon Development Kit **Environmental Sensor Board** 

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## Reference Modules

**CSR1010 Reference Module** 2-layer PCB (25.5 x 18.0 mm)

**CSR1011 Reference Module** 2-layer PCB (35.0 x 20.0 mm)



#### **CSR1012 Reference Module**

4-layer PCB (17.7 x 7.6 mm) active area

#### Common features:

- CE and FCC pre-qualified designs
- FR4 PCB layout
- Single-sided PCB mounting
- PCB antenna and passive filter
- A Daughter board featuring five representative MEMS parts to connect to the I/O Headers of all modules

### **SDK**

Once you purchase the Starter Development Kit, you can download the latest SDK with a valid activation code.



The Bluetooth low energy SDK provides a complete graphical code development environment for the CSR101x IC products using its xIDE environment with breakpoint, variable viewing, memory viewing, etc.

The SDK is based on a GCC compiler tool chain, and command line build and make tools are available for rapid development and regression builds.





# **Chip Variants**

CSR1010 All-purpose general platform	12x GPIO 3x AIO QFN 32 lead 5 x 5 x 0.6mm 0.5mm pitch
CSR1011 High I/O count variant	32x GPIO 3x AIO QFN 56 lead 8 x 8 x 0.9mm 0.5mm pitch
CSR1012 Small package for wearables	12x GPIO 3x AIO QFN 32 lead 4 x 4 x 0.65mm 0.4mm pitch

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