Qualcomm

Qualcomm® CSR102x
Bluetooth IoT Development Kit

Comprehensive demonstration and evaluation kit with on-board sensors for a range of IoT applications.

The Internet of things (IoT) development kit provides a multi-purpose development platform for prototyping a range of IoT applications and is designed for networking virtually of all your Bluetooth devices.

The IoT kit features on-board LEDs, buttons, switches and sensors to support prototyping of a range of devices. It is designed for use in networking of Bluetooth products such as lighting, and is intended for use with Bluetooth mesh and CSRmesh™ SDKs.

The development kit includes a comprehensive software package and features simple set up. An on-board PIR sensor can detect people walking into a room, and can be used for supporting security focused applications and others.
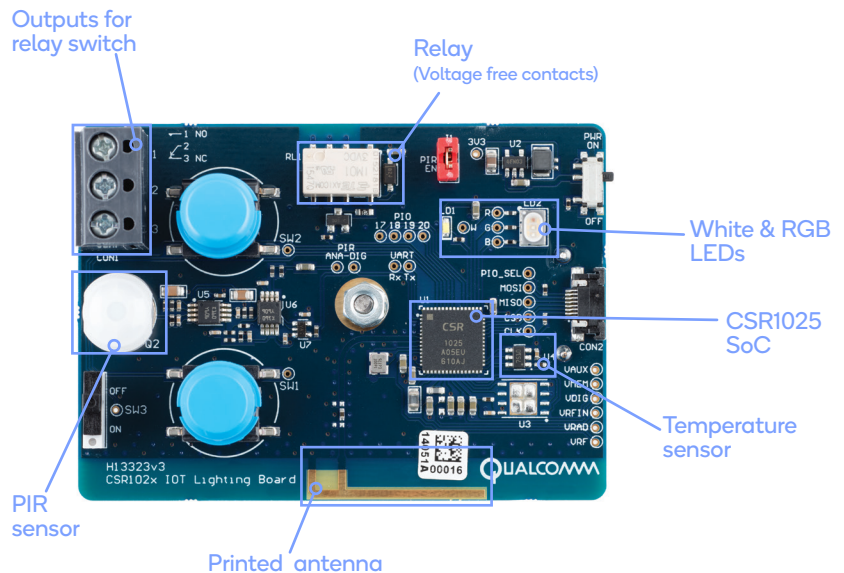
The IoT boards feature the CSR1025 SoC which is optimized for IoT applications where balancing performance, battery life, and cost is critical. Flexible I/O capabilities simplify integration for easy development and low cost designs with minimal external components.

There are a variety of development options available for the CSR102x platform for virtually all types of Bluetooth low energy applications. Kits are available to purchase online from our sales and solution providers including our network of distributors, representatives, module suppliers and design houses.

Kit Contents

- 3x IoT target boards
- Programmer board
- Mini-USB cable to connect to Host PC USB port
- Flexible cable to connect programmer to target board
- Setup guide
- Activation code for latest SDK

IoT Target Board

Outputs for relay switch
Relay (Voltage free contacts)
White & RGB LEDs
CSR1025 SoC
Temperature sensor
PIR sensor
Printed antenna

- On-board sensors for a range of IoT applications
- Outputs available on board for relay switch
- White and RGB LEDs, buttons and switches
- Control relay - control switch on and off

Bluetooth Low Energy IoT Applications

· IoT
· Smart Thermostats
· Switches

· Smart Home
· Bluetooth mesh
· Smart Lighting

❖ Bluetooth®

CSR102x

Features

- 3x IoT target boards with CSR1025 SoC

- Control Relay – control switch on and off

- Single crystal

- PIR sensor to detect people walking into a room, to support security focused applications

- External Flash (option)

- Adjustable duty cycle to optimize battery life for your application and network topology

- Outputs available on board to drive additional hardware, if required

- Control your device using downloadable example applications

- Use to form a mesh network of virtually all your Bluetooth devices with Bluetooth mesh and CSRmesh technology

Ordering Information

Product	Part Number
102x IoT Dev Kit	DK-CSR1025-10280
102x Professional Dev Kit	DK-UENERGY-PB-10242
102x Bluetooth Node Dev Kit	DK-CSR1025-10284
102x Starter Dev Kit	DK-CSR1025-10285
102x Sport Watch Application Board	DB-UENERGY-AB-10244
102x Smart Remote Application Board	DB-UENERGY-AB-10243

Other CSR102x Development Kits

PROFESSIONAL Development Kit
DB-UENERGY-PB-10242
A development kit based on a modular design that allows the processor to be swapped out via a pluggable module. The target board can be run from different power sources, and current can be measured from the board directly.

Applications:
- Auto keyless entry
- Fitness & Health
- Keyboards & mice
- Beacons
- Alert tags

CSR102x STARTER Development Kit
DK-CSR1025-10285
A simplified, yet comprehensive kit designed for developers and designers who need to get prototypes of their Bluetooth low energy products up and running and into production with reduced development time.

Applications:
- Heart rate sensor
- Security tag

BLUETOOTH NODE Development Kit
DK-CSR1025-10284
A small form factor design with a motion sensor, indication LED and button suitable for making tag applications a reality.

Applications:
- Beacon
- Proximity tag
- Footpod form factor

SPORT WATCH Application Board
DB-UENERGY-AB-10244
Pluggable sport watch application board that includes NFC with payment support, GPS and multiple sensors.

Applications:
- Wearables

SMART REMOTE Application Board
DB-UENERGY-AB-10243
Pluggable smart remote application board that includes a a microphone, IR transmitter and receiver, touchpad, motion sensor and other peripherals.
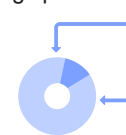
Applications:
- Accessories

CSR1025

- High I/O count upgradeable platform
- 33x GPIO
- 2x AIO
- 80KB RAM
- 256KB internal flash
- LGA 60-lead package
- 8 x 8 x 0.75mm; 0.5mm pitch

SDK

The Bluetooth low energy SDK provides a comprehensive graphical code development environment for the CSR102x IC products using its xIDE environment with breakpoint, variable viewing, memory viewing, etc.

The SDK is based on a gcc compiler tool chain with command line build and make tools available, designed for reducing development time and regression builds.

To learn more visit: qualcomm.com
or developer.qualcomm.com

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