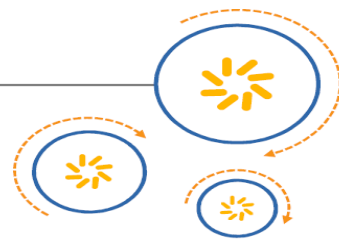




Qualcomm Technologies International, Ltd.



CSR8510 A10 PRODUCT BRIEF

80-CT903-1 AC

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BlueCore[®] CSR8510[™] A10

Bluetooth 4.0 Solution
For Computing and Home Entertainment

Product Overview

The CSR8510[™] A10 is the latest member of the CSR8000[™] connectivity platform designed to provide a compelling user experience in a broad range of consumer devices.

Designed for laptop, tablet and home entertainment markets, CSR8510 is a fully qualified Bluetooth 4.0 end-to-end solution offering both high-speed wireless communications and low energy operation.

The USB 2.0 host interface enables the CSR8510 to be used for USB dongles and internal modules for tablets and laptops. Full HCI mode is supported with switching to/from "HID proxy mode" for boot mode support and stack-less operation, where a host stack is not required or available.

Also targeted at Digital TV applications with Bluetooth low energy remote controls, the module can be configured to provide a Host Wakeup signal on receiving a key press from the remote.

For devices where WLAN functionality is also implemented, a coexistence interface supports cooperation with a WLAN product to ensure effective sharing of the available radio bandwidth.

A very low number of external components are required and simple PCBs designs can be used making the total solution highly optimized for cost-conscious devices.

CSR offers a comprehensive ecosystem of hardware and software components to help with rapid device development. These include:

- CSR [Harmony](#)[™] Bluetooth stack for Windows[®] systems
- CSR [Synergy](#)[™] software for embedded devices
- CSR [BlueSlim 2](#) module reference design
- CSR [μEnergy](#)[™] development environment for Bluetooth low energy devices.



Applications

Computing devices including:

- PCs
- All-in-Ones
- Laptops
- Netbooks
- Tablets

Embedded home entertainment devices including:

- Digital TVs
- Set-top Boxes

After-market low-power Bluetooth accessories:

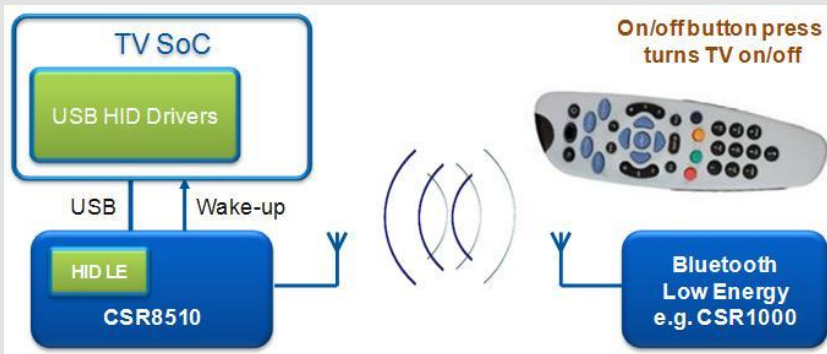
- USB dongles

Associated Products



Key Product Features

- High-speed Bluetooth® v4.0 +HS solution
- Dual-mode Bluetooth/Bluetooth low energy operation
- HCI mode operation with full Bluetooth stack
- “HID proxy mode” for boot mode support and stack-less operation
- High-sensitivity Bluetooth and Bluetooth low energy receiver
- Class 1, Class 2 and Class 3 support without external power amplifier or TX/RX switch
- +10dBm Maximum Tx output power
- Baseband processor running Bluetooth HCI firmware stack
- Reference design available with worldwide qualification
- Green (RoHS compliant)
- Full-speed USB 2.0 host interface
- Configurable Host Wakeup for TV/STB remote control on/off function
- RFKill functionality for PCs (hardware and software radio enable controls)
- WLAN coexistence interface
- External EEPROM I²C interface
- Integrated balun (50Ω Tx/Rx impedance)
- Low number of external components required (15 passives plus crystal in reference design)
- 28-ball WLCSP package
- On-chip synthesizer
- Internal power regulation for USB operation
- Selectable I/O voltage
- Filtered signal strength indicator

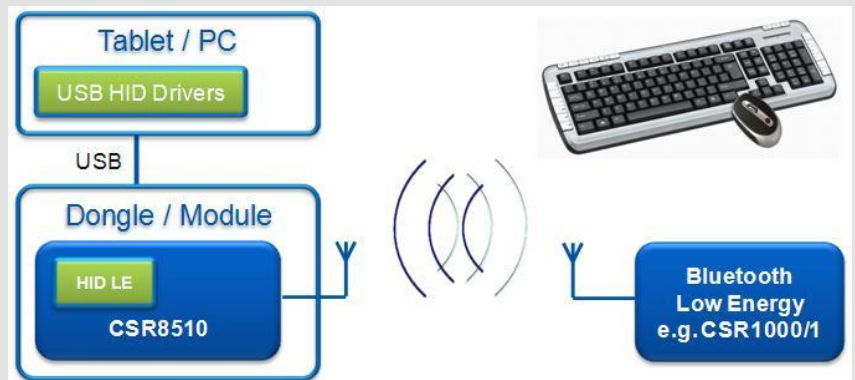


Digital TV Scenario

- CSR8510 enumerates directly as HID USB device
- No Bluetooth upper stack needed
- Remote button event can wake TV host from standby
- Can switch to full HCI mode to support full Bluetooth operation, such as A2DP audio streaming

Tablet / PC Scenario

- CSR8510 enumerates directly as HID USB device
- Supports full HCI mode *or*
- “HID proxy mode” which makes keyboard and mouse available at boot time with no Bluetooth upper stack needed



Ordering Information

Visit the website for a list of distributors and representatives [Contact > Sales Representatives] or request more information from a CSR representative [Contact > CSR Customer Support]. Visit the website [www.csr.com] for more information on related products

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