The CSRB534x series of dual-mode SoCs features a rich Bluetooth v4.1 compliant platform and offers a powerful, versatile and cost-effective solution, making it ideal for a variety of next generation wireless and VR (virtual reality) gaming accessories and embedded modules.

The CSRB534x dual-mode differentiated platform is designed to support devices that need to connect to both Bluetooth BR/EDR (basic rate/enhanced data rate) and Bluetooth LE (Bluetooth low energy). These dual-mode SoCs provide enhanced connection topologies to improve smart device support and accessory support. This is combined with a powerful array of embedded system blocks including an 80MHz processor, DSP, large I/O for sensor-rich connection, ROM memory array, direct LED drive, and analog and power management.

The CSRB534x highly integrated package with ultra-low power operation allows for significant bill of materials (BoM) savings and optimum design flexibility. The dual-mode CSRB534x SoCs meet the needs of a wide range of IoT applications including wireless game pads, VR game pads, toys, industrial and home automation, EPOS, data loggers, barcode readers, metering devices and systems with large interface requirements, such as keyboards.

Solution Highlights

**Dual-mode Bluetooth for powerful, versatile and cost-effective solutions**

The CSRB5341 and CSRB5342 are ideal for a variety of next generation wireless and VR gaming accessories and controllers, HID and embedded modules.

**Ultra-low power operation for optimal battery life**

The CSRB534x platform is Bluetooth v4.1 qualified and makes use of a highly efficient baseband, so that system level power consumption is minimized, giving optimized performance with minimum development effort.

**Peripheral rich for design flexibility**

The platform comes with 22 fully configurable digital I/O and 22 analog I/O, ensuring feature rich designs along with embedded ROM, RAM and the option for memory expansion with a serial Flash memory interface.

**Tools for rapid development**

The powerful Software Development Kit (SDK) for CSRB534x helps accessory developers of various operating systems to bring products to market quickly. It includes Android and PC support and integrates SPP and SPP over GATT.
CSRB534x IoT Target Applications

- Gaming Accessories
- Holographic Virtual Reality Accessories
- Keyboards/HID Devices
- Dual-mode Bluetooth Modules
- Wireless Toys
- Remote Controls
- 

Features

- Integrated application processor with internal ROM, a power management subsystem and LED drivers in a SoC IC
- Programmable DSP for exclusive use of customer applications
- 22 programmable digital I/O & 22 analog I/O
- Optional serial flash interface
- On-chip balun (50Ω impedance in TX and RX modes)
- Integrated 1.35V switch-mode regulator
- All internally required regulators integrated on chip
- Integrated Lithium ion battery charger with instant-on (CSRB5342/5348 only) or dry-cell battery technology (CSRB5341)
- Dedicated SDK includes xIDE and market leading Bluetooth stack
- OTA/USB updates for future proofing products
- 7 hardware PWM controllers, 4 on dedicated LED pads
- Keyscan hardware
- Requires minimum external components

Ordering Information

<table>
<thead>
<tr>
<th>Product</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRB5341 QFN</td>
<td>CSR5341AI1-IQQU-R</td>
</tr>
<tr>
<td>CSRB5342 QFN</td>
<td>CSR5342AI1-IQQU-R</td>
</tr>
<tr>
<td>CSRB5342 BGA</td>
<td>CSR5342AI1-IBVE-R</td>
</tr>
<tr>
<td>CSRB5348 BGA</td>
<td>CSR5348AI1-IBVE-R</td>
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</tbody>
</table>

Related Products

- CSR534x Dev Kits
- Qualcomm® CSR101x family
- CSMesh™ Dev Kit

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

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Power Consumption

- Standby: <0.15 mA, Operating: <1 mA

Operating Voltage

- 1.8V / 2.8V / 3.2V configurable LDO linear regulator

Operating Temperature

- -20°C to +70°C (CSRB5341/42)
- -40°C to +85°C (CSRB5348)