ISM43340-L77 Dual Band Wi-Fi … BT4.0 … Embedded SIP

Integrates 2.4 GHz / 5 GHz Wi-Fi, IEEE 802.11 a/b/g/n and Bluetooth 4.0 in a SINGLE system in a package.

The Inventek ISM43340 SIP is designed based on Broadcom BCM43340 chipset solution. The ISM43340 single-chip quad-radio device provides the highest level of integration for a mobile or handheld wireless system, with integrated dual band (2.4 GHz / 5 GHz) IEEE 802.11 a/b/g and single-stream IEEE 802.11n MAC/baseband/radio and Bluetooth 4.0. The ISM43340 includes integrated power amplifiers, LNAs and T/R switches for the 2.4 GHz and 5 GHz WLAN bands, greatly reducing the external part count, PCB footprint, and cost of solutions.

Features:

The ISM43341 implements the highly sophisticated Enhanced Collaborative Coexistence algorithms and hardware mechanisms, allowing for an extremely collaborative Bluetooth coexistence scheme along with coexistence support for external radios (such as cellular and LTE, GPS, WiMAX, and Ultra-Wideband) and a single shared 2.4 GHz antenna for Bluetooth and WLAN. As a result, enhanced overall quality for simultaneous voice, video, and data transmission on a handheld system is achieved.

For the WLAN section, two host interface options are included: an SDIO v2.0 interface (including gSPI) and a High-Speed Inter-Chip (HSIC) interface (a USB 2.0 derivative for short-distance on-board connections). An independent, high-speed UART is provided for the Bluetooth host interface.
IEEE 802.11x Key Features:

- Dual-band 2.4 GHz and 5 GHz IEEE 802.11 a/b/g/n
- Single-stream IEEE 802.11n supports for 20 MHz and 40 MHz channels provides PHY layer rates up to 150 Mbps for typical upper-layer throughput in excess of 90 Mbps
- Supports the 802.11n STBC (space-time block coding) RX and LDPC (low-density parity check) Tx options for improved range and power efficiency
- Supports a single 2.4 GHz antenna shared between WLAN and Bluetooth
- Supports standard SDIO v2.0 and gSPI (48 MHz) host interfaces
- Alternative host interface supports HSIC v1.0 (short-distance USB device)
- OneDriver™ software architecture for easy migration from existing embedded WLAN and Bluetooth devices as well as future devices

Bluetooth Features

- Bluetooth Core Specification 4.0
- Bluetooth Class 1 or Class 2 Transmitter
- Bluetooth Low energy support
- Bluetooth Smart Audio technology improves voice and music quality to headsets

**Product Availability:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISM43340-L77</td>
<td>2.4 / 5G Wi-Fi, Bluetooth SIP Module – Commercial Temp</td>
</tr>
</tbody>
</table>