

RT3090BC4

802.11n plus Bluetooth 3.0 Half MiniCard solution

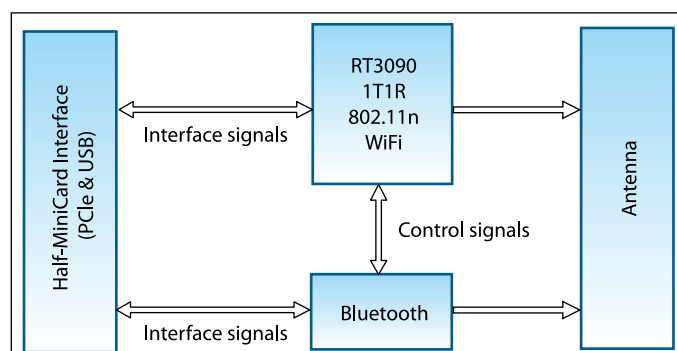


- Up to 150Mbps data rate ; 80 percent faster WLAN throughput
- Easy Bluetooth device detection and setup
- 20 percent cost savings

Overview

The RT3090BC4 is an 802.11n plus Bluetooth 3.0 Half MiniCard solution for PC OEMs. Targeting Notebooks, Netbooks and high-volume consumer PC platforms, the RT3090BC4 delivers an unprecedented level of intelligent coexistence between Wi-Fi and Bluetooth. With support for high-performance Bluetooth 3.0 + HS functionality, this product catapults wireless mobile computing into a new level of multimedia capability by enabling Bluetooth 3.0+HS with data rates of up to 150Mbps, while maintaining the simplicity of Bluetooth device detection and setup. With an optimized bill of material, simplified design, and integrated manufacturing and testing procedures, the joint solution delivers significantly lower cost and power than discrete Wi-Fi and Bluetooth products. The solution incorporates support for a consumer-friendly user interface and 22 Bluetooth profiles including high-performance multimedia capabilities such as stereo audio, video streaming, and rapid digital photo transfers for personal area network (PAN) applications.

RT3090BC4 Block Diagram



Features

- 3.3V voltages from half MiniCard interface. PCIe V1.2 or later compliance
- Compliant with Bluetooth 2.1+EDR and Bluetooth V3.0+HS
- Supports WLAN+Bluetooth coexistence for optimized performance
- IEEE 802.11b (1999), IEEE 802.11g (2003), and IEEE 802.11n (2009) compliance
- 150 Mbps Tx (Transmit) PHY data rate, and 150Mbps Rx (Receive) PHY data rate
- Supports both 20 MHz and 40 MHz channel operation
- Supports legacy and high throughput Wi-Fi modes
- Compressed Block ACK (BA)
- Compliant with IEEE 802.11i 64-/128-bit WEP encryption, WPA, WPA-PSK and TKIP, and WPA2 (with AES-CCM support)
- Compliant with IEEE 802.11e WMM and WMM Power Save
- Compliant with international regulations for IEEE 802.11d and IEEE 802.11h
- Supports both long and short guard intervals
- Cisco CCX V1.0, V2.0, V3.0, V4.0 and CCX5.0 certified
- Support for Reverse Data Grant (RDG) and Frame Aggregation
- Support for Software Access Point Mode
- Support for IEEE 802.11s mesh networks, for both Access Point and Station
- USB interface incorporated
- Full-speed Bluetooth operation with Piconet and Scatternet support



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