

802.11ac Draft 3×3 2.4/5 GHz Single-Chip MAC/PHY/Radio

GENERAL DESCRIPTION

The BCM4360 is a dual-band (2.4 GHz and 5 GHz) IEEE 802.11ac Draft 3 × 3 compliant MAC/PHY/Radio complete system-on-a-chip. The device enables the development of PCI Express® 802.11ac Draft WLAN client and router subsystem solutions for all WLAN markets that can take advantage of the extremely high throughput and extended range of the Broadcom® MIMO solution. With MIMO, information is sent and received over two or more antennas simultaneously using the same frequency band, thus providing greater range and increasing throughput while maintaining compatibility with legacy IEEE 802.11a/b/g/n devices. The BCM4360 supports the IEEE 802.11ac draft standard, which provides increased data rates in the 5 GHz band.

The BCM4360 architecture with its fully integrated dual-band 2.4 GHz-band radio transceiver supports 3 × 3 antennas for data rates up to 1.3 Gbps.

State-of-the-art security is provided by industry standardized system support for WPA, WPA2 (802.11i), and hardware accelerated AES encryption/decryption, coupled with TKIP and IEEE 802.1X support. Embedded hardware acceleration enables increased system performance and significant reduction in host-CPU utilization in both client and access point configurations. The BCM4360 also supports the widely accepted and deployed Broadcom WPS for ease-of-use wireless secured networks.

FEATURES

- IEEE 802.11ac Draft compliant.
- Three-stream spatial multiplexing up to 1.3 Gbps data rate.
- Supports 20, 40, and 80 MHz channels with optional SGI (256 QAM modulation).
- Support for STBC and LDPC, in both TX and RX for increased wireless coverage.
- Greenfield, mixed mode, and legacy modes supported.
- Full IEEE 802.11a/b/g/n legacy compatibility with enhanced performance.
- Complies with PCI Express base specification revision 2.0 for ×1 lane and power management base specification.
- One USB 2.0 device port.
- Supports WHQL certified drivers for Windows 7, Vista 32- and 64-bit, and Windows XP. Supports Linux for access point and router applications.
- Comprehensive wireless network security support that includes WPA, WPA2, and AES encryption/decryption.
- Available in two packages:
 - 12 × 9 mm, 88-pin QFN for client applications
 - 12 × 12 mm, 108-pin QFN for AP/router/USB applications

APPLICATIONS

- Wireless client cards for desktop and notebook applications.
- High performance 802.11ac Draft access points, routers, and DSL gateways that feature the PCIe™ host interface.

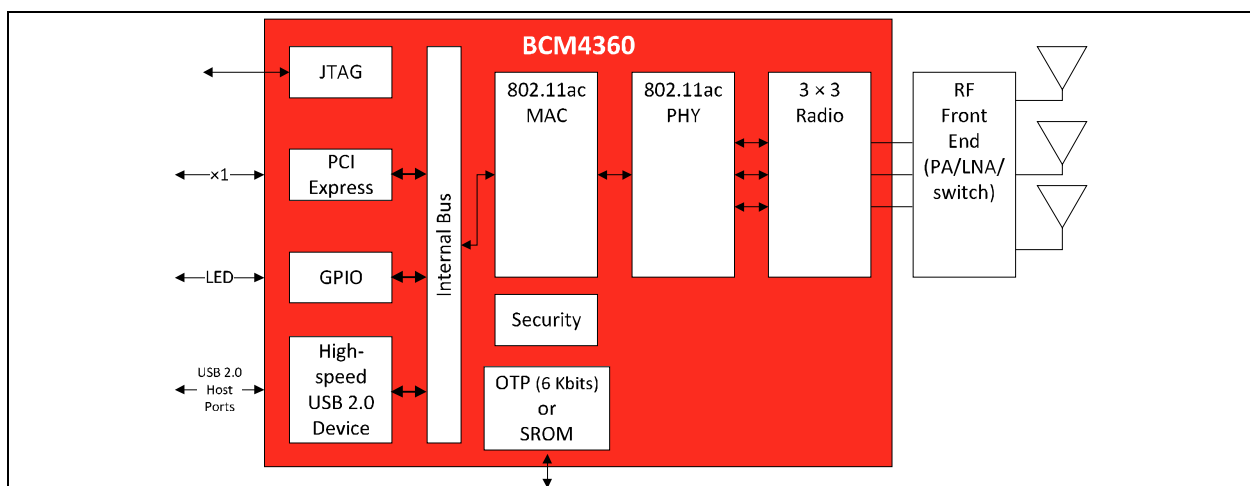


Figure 1: BCM4360 Block Diagram

Revision History

Revision	Date	Change Description
4360-DS101-R	07/25/12	Updated: • Figure 9: “108-Pin (12 × 12) QFN Package,” on page 23 • Table 3: “108-Pin (12 × 12) Pins and Signals,” on page 26 • Table 4: “Signal Descriptions,” on page 28 • Table 8: “BCM4360 Current Consumption,” on page 36 • Table 10: “WLAN 2.4 GHz Receiver Performance Specifications,” on page 38 • Table 11: “WLAN 2.4 GHz Transmitter Performance Specifications,” on page 43 • Table 12: “WLAN 5 GHz Receiver Performance Specifications,” on page 44 • Table 13: “WLAN 5 GHz Transmitter Performance Specifications,” on page 47 • Table 14: “General Spurious Emissions Specifications,” on page 48
4360-DS100-R	12/16/11	Initial release

For Complete Datasheet, Pls Visit www.signal-post.com

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