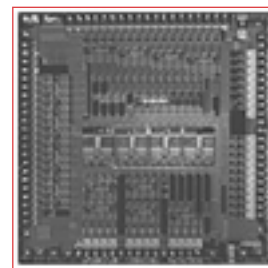




BCM4307 PRODUCT Brief



BCM4307 802.11B MAC/BB, V.92 MODEM, AND 10/100 ETHERNET

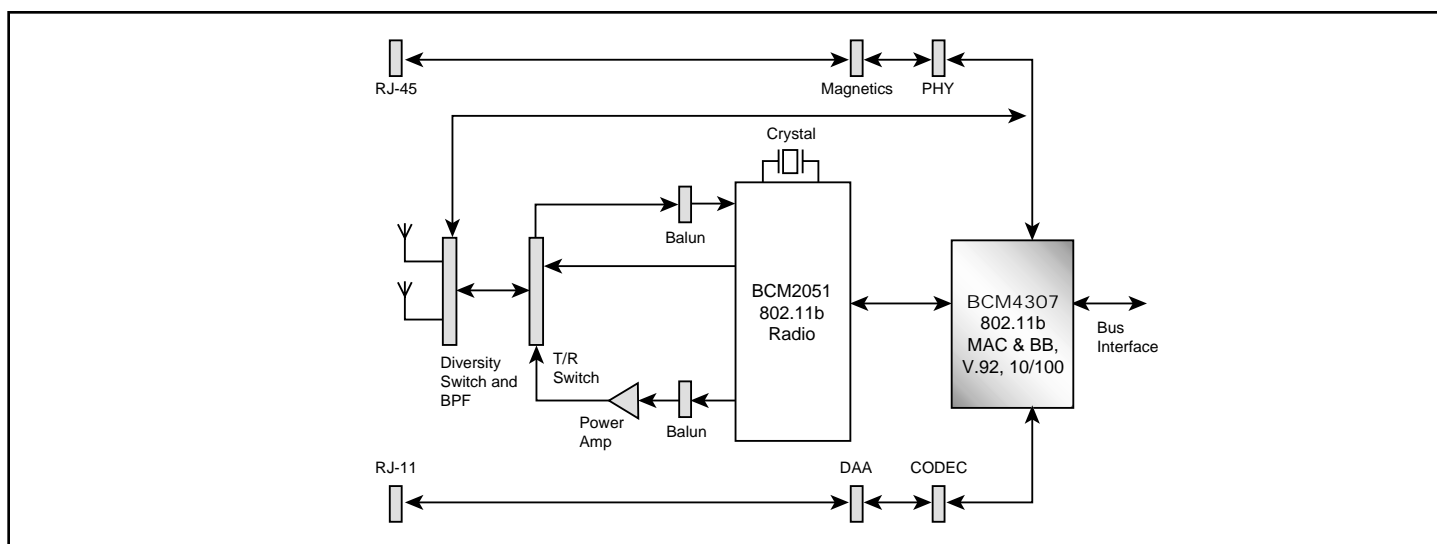
BCM4307 FEATURES

- **Combination IEEE 802.11b, 10/100 Ethernet, and V.92 modem with fully concurrent operation**
- **WHQL certified drivers for Windows XP, Windows Millennium Edition, Windows 2000, and Windows 98SE**
- **Meets PCI Power Management Interface v1.1 (ACPI)**
- **IEEE 802.11b compliance**
 - IEEE802.11b compliant MAC and Baseband
 - Interfaces to BCM2051 802.11b Single Chip Direct Conversion Radio
 - WECA Wi-Fi November 2001 compliant
 - 24-bit IV and 40-bit key WEP Encryption Support
 - 24-bit IV and 104-bit key WEP Encryption Support
 - 128-bit IV and 128-bit key WEP2 Encryption Support
 - SW and HW support for 128-bit OCB mode AES
 - IEEE 802.1x and LEAP support
 - Programmable 1, 2, 5.5, and 11 Mbps data rate
 - Dynamic power management under driver control
- **10/100 Ethernet**
 - Complete 10/100 MAC and driver solution
 - IEEE802.3u compliant transmit and receive engines
 - Integrated MIB counters
- **V.92 PCI modem**
 - High-performance V.92 software modem available
 - On-chip serial interface to external DAA/Codec
 - Efficient – uses only 30 MHz x86 CPU capacity
- **3.3/1.8V supply, 3/5V PCI I/O**
- **196-ball PBGA package**

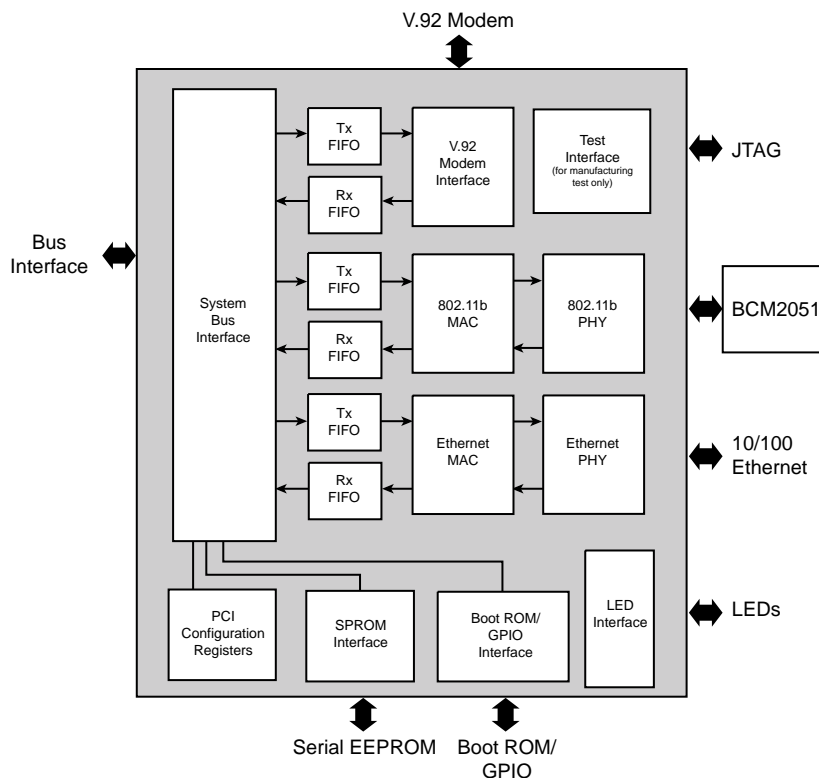
SUMMARY OF BENEFITS

- **Includes fully integrated 802.11b MAC/baseband, 10/100 Ethernet MAC, and V.92 modem device for use in:**
 - PCI, Mini PCI, Cardbus, PCMCIA, and Compact Flash adapters.
- **Each interface operates concurrently as a separate function, providing independent communication channels.**
- **Represents the highest level of integration for portable Internet communications functions.**
- **Provides the lowest cost per communications function**
- **Includes WHQL-certified drivers for Windows XP, Windows® ME, Windows® 2000 and Windows® 98SE for all three functions.**
- **All drivers are portable for embedded operating systems.**
- **Mini PCI support provides ideal solution to laptop manufacturers eliminating the need to compromise to support 802.11b, V.92, and Ethernet functions.**
- **High level of integration with direct conversion radio architecture minimizes external circuitry leading to lowest cost, lowest power, smallest footprint implementation.**
- **Supports industry-standardized encryption algorithms to provide secure communications.**

BCM4307 System Diagram



BCM4307 Block Diagram



The Broadcom **BCM4307** integrates IEEE 802.11b, 10/100 Ethernet MAC, and V.92 software modem interfaces, enabling complete portable Internet communications connectivity. By integrating all three functions, the **BCM4307** dramatically lowers the cost per function and allows ubiquitous high-speed connectivity to the Internet or corporate network through either wired or wireless connectivity. The **BCM4307** provides laptop manufacturers with a two-chip solution that meets all the connectivity requirements of their customers. **BCM4307** equipped laptops enable connectivity wherever 802.11b wireless LANs are available, in addition to providing modem and Ethernet connectivity.

IEEE 802.11b Function: The **BCM4307** provides IEEE 802.11b MAC and baseband functions and interfaces to the BCM2051 to provide wireless LAN connectivity supporting data rates from 1 Mbps to 11 Mbps. Broadcom's direct conversion architecture virtually eliminates the additional external components typically required for 802.11b implementations, resulting in significant cost, power, and footprint savings.

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Additionally, industry-standardized WEP, WEP2, and AES encryption coupled with IEEE 802.1x support is provided to ensure the security of transmitted data.

10/100 Ethernet Function: The **BCM4307** 10/100 Ethernet function incorporates a complete IEEE802.3u-compliant MAC. The MAC also supports management functions, including RMON, Ethernet-like MIB, and IEEE 802.3u Ethernet MIB.

V.92 Modem Function: The **BCM4307** controller includes a V.92 data/fax/voice modem interface to an external serial modem codec/DAA, allowing implementation of a complete, low-cost V.92 data/fax/voice soft modem. The V.92 data/fax/voice Software Modem driver is available for Windows 98, Windows ME, and Windows 2000, and can be ported to virtually any processor and operating system combination.

Ordering Info

BCM4307KPF



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