BROADCOM®
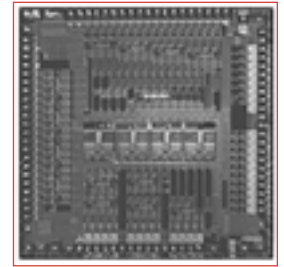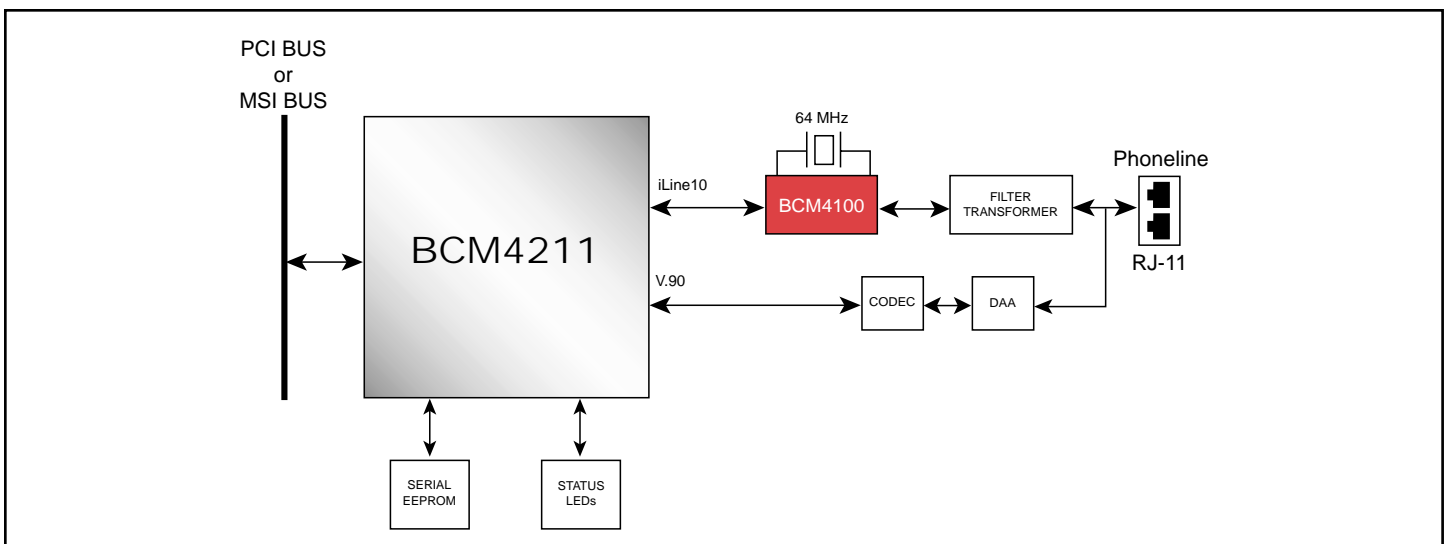
BCM4211 PCI/MSI iLine10™ CONTROLLER

BCM4211 FEATURES

- **Combination HomePNA 2.0 and V.90 PCI 2.2 modem with Fully Concurrent Operation**
- **PC99 WHQL certified drivers for Windows 98, Windows Millennium Edition, and Windows 2000**
- **Meets PCI Power Management Interface v1.1 (ACPI)**
- **Microprocessor Slave Interface (MSI) connects to PPC, M68K, ARM7T, SH3, and other processors**
- **HomePNA 2.0**
  - Fully integrated 10 Mbps HomePNA 2.0 iLine10 MAC and PHY
  - Rate adaptive line rate from 4 Mbps to 16 Mbps
  - Adaptive equalizer for robust transmission over time-varying and impaired channels
  - Distributed Fair Priority Queuing (DFPQ) for low-latency real-time multimedia
  - Compatible with existing telephone services
  - Fully interoperable between 10 Mbps HomePNA 2.0 operation and HomePNA 1.0
- **V.90 PCI Modem**
  - High-performance data/fax/voice V.90 software modem available
  - On-chip serial interface to external DAA/Codec
  - Efficient–uses only 30 MHz x86 CPU capacity
  - Tolerates >30ms system latency on PCI
- **3.3V supply, 3/5V PCI I/O**
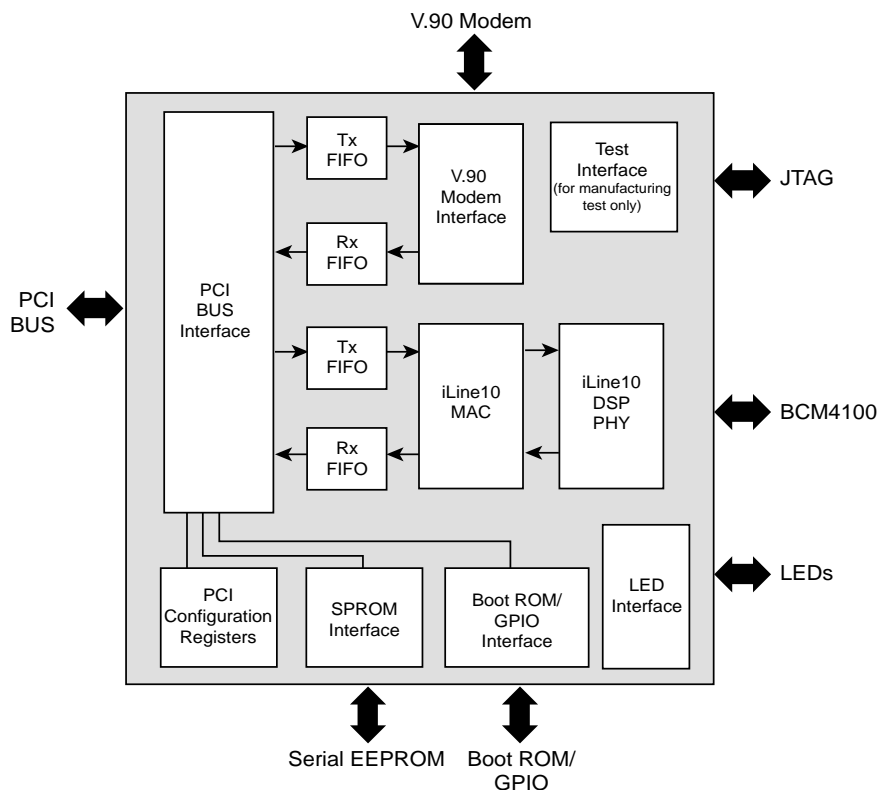- **144-pin TQFP**

SUMMARY OF BENEFITS

- **Fully integrated iLine10 MAC/PHY and V.90 modem device for use in:**
  - PCI/Mini PCI adapters
  - LAN on Motherboard
  - Internet Appliances and Broadband Gateways
- **Each interface operates concurrently as a separate function, providing independent communication channels**
- **Represents very high level of integration for consumer Internet communications functions**
- **Provides low cost per communications function**
- **Modem function allows low cost V.90 backup to Broadband connection**
- **PCI and Microprocessor Slave Interface bus options allow integration into virtually any system**
- **WHQL certified drivers for Windows 98, Windows ME, and Windows 2000 for both functions**
- **All drivers are portable for embedded operating systems**

BCM4211 System Diagram

BCM4211 Block Diagram

The Broadcom **BCM4211** integrates HomePNA 2.0 and V.90 software modem interfaces, enabling complete Internet communications connectivity. By integrating both HomePNA 2.0 and V.90, the **BCM4211** dramatically lowers the cost per function and allows ubiquitous high-speed connection to Cable, DSL, and Fixed-Wireless Broadband pipes throughout the home. HomePNA 2.0 everywhere means hundreds of dollars in installation costs can be saved while carrying voice, video, and data to each room in the house. The **BCM4211** contains a PCI 2.2 compliant interface to both HomePNA 2.0 and V.90 functions for easy installation in PCs, as well as a flexible 16-bit Microprocessor Slave Interface for embedded systems, such as Internet Appliances and Home Gateways.

Home Networking Function: The **BCM4211** high-speed HomePNA 2.0 compliant Home Networking interface uses a highly adaptive integrated Internet Communications Processor, with data rates up to 16 Mbps, that overcomes the wiring impairments on existing installed home phone lines.

The **BCM4211** Home Networking function operates on home telephone wiring without disturbing normal phone or modem operation or other services like POTS, V.90, ISDN, and ADSL. The **BCM4211** includes both MAC and PHY functions and supports connection to the external BCM4100 Analog Front End.

V.90 Modem Function: The **BCM4211** controller includes a V.90 data/fax/voice modem interface to an external serial Modem Codec/DAA, allowing implementation of a complete, low-cost V.90 data/fax/voice soft modem. The V.90 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:

BCM4211 KTF (Standard package)

BCM4211 KTL (Thin package for Mini PCI form factor)

For more information please contact us at:
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