

BCM5364/BCM5364P PRODUCT Brief



SENTRY 5 PRODUCT LINE: BCM5364/BCM5364P SECURED SWITCH PROCESSORS

FEATURES

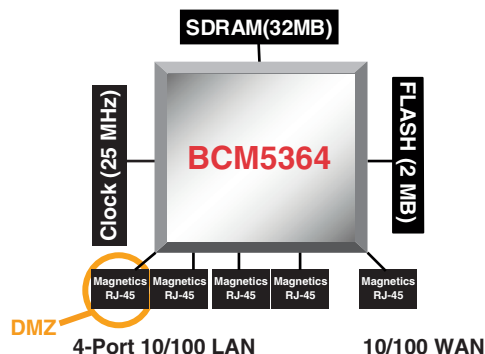
- The most highly integrated access security processors
- **5-port 10/100 Ethernet switch with integrated PHY (TX/FX)**
 - IEEE 802.1Q (VLAN) support; IEEE 802.1P (4 Priority Queues - CoS, QoS), DiffServ, ToS support; IEEE 802.1D (Spanning Tree) support
 - 802.1X protocols, IP multicast, IGMP snooping for video streaming applications, broadcast suppression, and hosting of multiple subnets
 - 128-KB on-chip packet buffer
- **General purpose 200-MHz MIPS32™ Processor**
 - 8 KB of instruction cache, 4 KB of data cache
- **Supports Linux®, VxWorks® operating systems**
- **BCM5364P supports PCI 2.2, 32-bit/33-MHz host/slave interface**
 - Supports four additional PCI devices in host mode
- **Extensive interface flexibility**
 - Interface to flash memory (up to 32 MB)
 - Interface to SDRAM/DDRAM (up to 512 MB, 100 MHz)
 - GPIO, USB, UART interface
- **JTAG/EJTAG support**
- **400-pin PBGA package**
- **Low power, 1.8V core, 3.3V I/O operation**
- **Linux Open Source application software support**
 - Third-party software support

SUMMARY OF BENEFITS

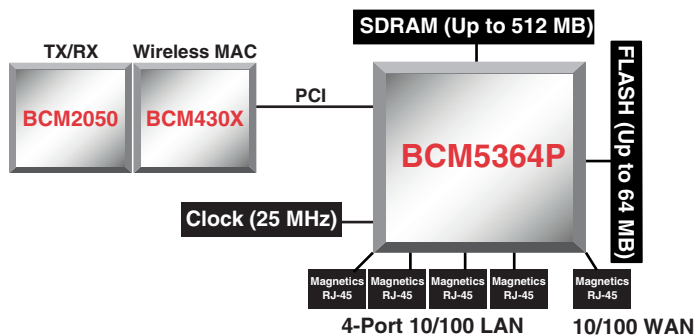
- System-on-a-chip solution offers optimal price/performance ratio and form factor, low power dissipation, and fastest time to market
- Integration of managed five-port Fast Ethernet switch
- Integration of MIPS32 CPU with silicon-proven IPSec processor facilitates complete packet processing in one pass for multiple policy-based packet routing and/or packet transformations (firewall, NAT, VPN, QoS)
- Enables advanced application development with industry-standard operating systems/platforms/tools
- Widely proliferated high-performance MIPS32 CPU enables advanced application development with industry-standard operating systems/platforms/tools
- Extensive application software offered
 - NAT, filtering (IP, TCP), dynamic firewall, DMZ
 - Ethernet routing, static routing, DHCP server/client
- Compatible with other Broadcom devices, enabling optimal system-level form factor, costs, and power dissipation

BCM5364/5364P-Based System Applications

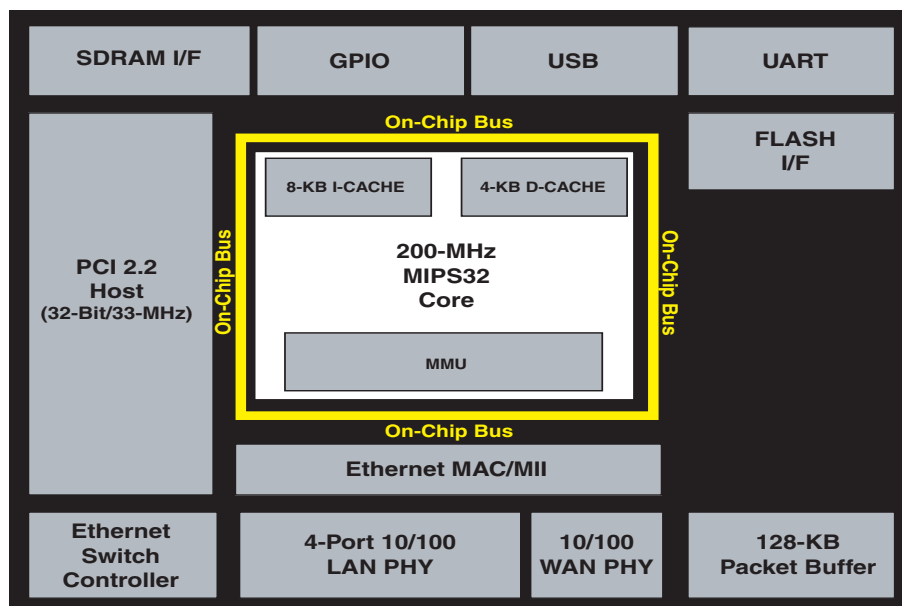
BCM5364-Based Wired Home Router



BCM5364P-Based Wireless Router



OVERVIEW



Note: PCI Interface Supported in 5365P Only

Broadcom's **BCM5364** and **BCM5364P**, two System-On-Chips, are the most highly integrated access switch processor there are. The **BCM5364/BCM5364P** also features an on-chip, five-port 10/100 Ethernet switch with management features. This switch processor also offers extensive processor and interface integration featuring an integrated 200-MHz MIPS32™ core, UART, flash and SDRAM/DDRAM interfaces. The **BCM5364P** also supports a PCI interface. Both the devices support IPsec encryption and authentication in a single pass.

The integrated 200-MHz MIPS32™ core of the **BCM5364/BCM5364P** has a 2-way set-associative 8-KB instruction cache and a 4-KB data cache. The CPU includes the MMU, which enables support for various RTOS.

The **BCM5364/BCM5364P** also supports interfaces that enable system-level cost savings, a better form factor, and lower power dissipation. The **BCM5364/BCM5364P** supports up to 512 MB of SDRAM/DDRAM and 64 MB of flash memory.

The **BCM5364P** also supports the PCI version 2.2, 32-bit/33-MHz host interface, allowing enumeration of four external PCI peripherals as a way to extend system functionality. The UART enables a glueless interface to serial devices such as modems.

Broadcom provides its proven API and drivers for integration with third-party application software. Broadcom also offers application software to build complete system applications. Application software support includes functions such as firewall (dynamic firewall, DMZ hosting, filtering-IP/TCP, NAT/PAT), VPN (IKE engines, IPsec drivers and API, PPTP-passthrough, PPPoE client-PAP and CHAP authentication), QoS/CoS/ToS (static and dynamic Ethernet routing, VLAN tagging), and many other features.

A single **BCM5364/BCM5364P** based platform is easy to reuse for other types of access to market segment equipment ranging in throughput performance from T1/E1 to 100 Mbps. This equipment includes wireless and wired home/residential and SOHO firewall and VPN appliances, wireless access points, and many types of customer premises equipment (CPE) devices.

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BROADCOM CORPORATION
16215 Alton Parkway, P.O. Box 57013
Irvine, California 92619-7013

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Phone: 949-450-8700
Fax: 949-450-8710
E-mail: info@broadcom.com
Web: www.broadcom.com