

SECURITY AND VOICE-ENABLED ETHERNET, DSL, AND PON CPE SOLUTION

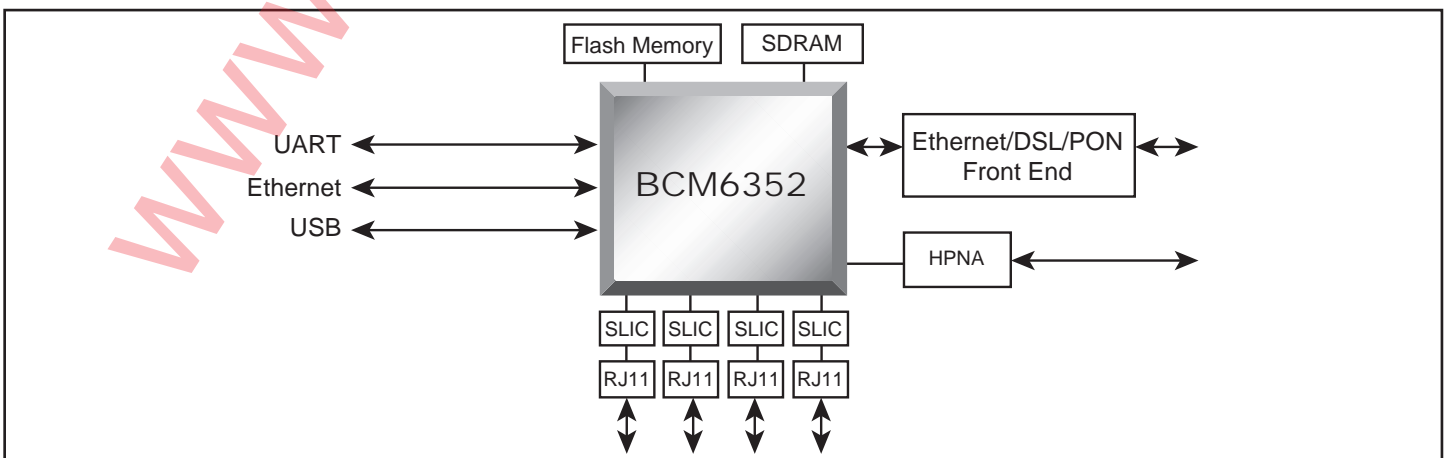
BCM6352 FEATURES

- High-performance MIPS32™ CPU
- High-speed UTOPIA I/II standard interface
- Hardware accelerated HDLC bit synchronous interface with integrated framer
- High-speed hardware ATM SAR with acceleration for voice-related AAL adaption layers and VCCs
- High-speed expansion bus for glueless multi-peripheral interface
- Hardware acceleration for packet inspection, classification, and encryption
- Two port 10/100 Ethernet switch with hardware support for high-speed MII, auto-MDIX, VLAN tagging, and quality of service (QoS)
- 12 Mbps USB 1.1-compliant interface with Microsoft® WHQL certified drivers
- High-speed voice processing engine
- Four integrated FlexiVoice™ codecs and SLACs with worldwide homologation support
- IOM-2/PCM interface
- Extensive chip power management
- 1.8/3.3 V operation
- Complete board support packages, protocol and application stacks for Linux™ and VxWorks® environments
- Complete documentation support including reference design bill of materials, Gerber files, schematic drawings, application notes, and online support

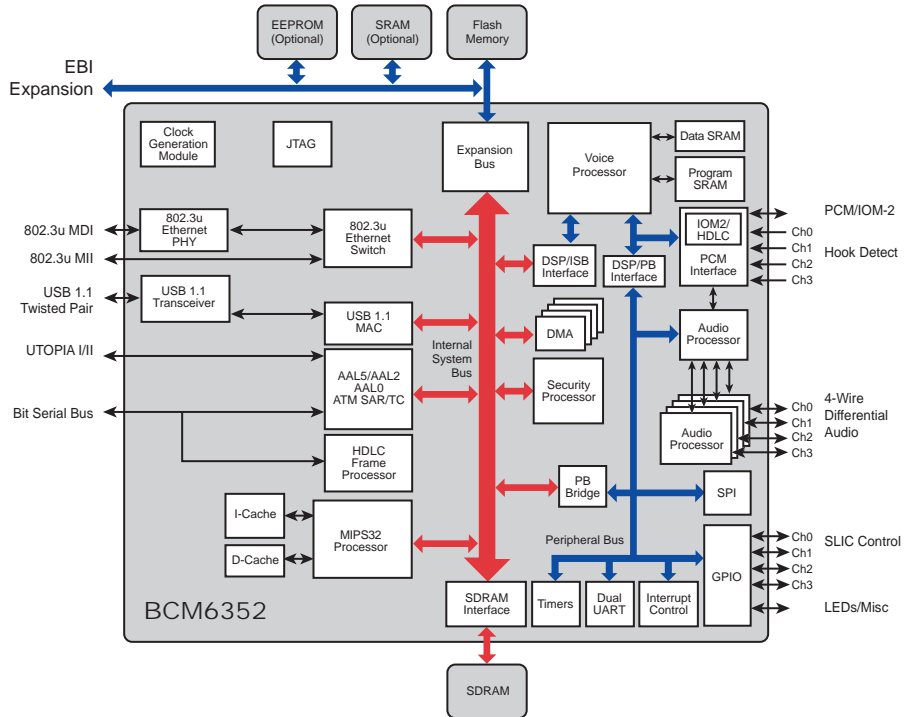
SUMMARY OF BENEFITS

- High clock-rate MIPS supports CPU-intensive wire speed routing on multiple ports, business-class firewall, and virtual private network applications.
- Multiple industry-standard high-speed chip interfaces provide design flexibility.
- ATM, IPSec, and HDLC hardware acceleration to reduce CPU processing requirements and improve throughput.
- High-speed expansion bus supports seamless connectivity to Broadcom and third party solutions for home networking, wireless, security, switching, and custom ASICs.
- Industry-leading Ethernet technology for auto-MDIX, VLAN, and QoS provide advanced functionality for business applications while reducing support costs.
- USB port provides single-user LAN connectivity to PCs without Ethernet adapters.
- Hardware acceleration and field tested voice codecs and applications provide highly interoperable, multi-line, toll quality voice support.
- IOM/PCM interface supports external DSPs for high density, multi-line VoDSL and VoIP applications.
- All integrated peripherals may be toggled on or off through software, allowing operation in extremely low-power operation.
- Complete documentation and software stacks for leading operating systems reduces time-to-market.

BCM6352-Based Security and Voice-enabled Ethernet, DSL, or PON CPE



BCM6352 OVERVIEW



The **BCM6352** is a highly integrated system-on-a-chip solution for use in security and voice-enabled Ethernet, DSL and PON (passive optical network) CPE. It combines the power of a high clock-rate 32-bit MIPS CPU with hardware acceleration for ATM, HDLC, security processing to spare the CPU for customer-differentiating, and value-added software applications.

In addition to the hardware ATM, HDLC and security acceleration, the **BCM6352** integrates a two-port 10/100 Mbps Ethernet switch with support for line-rate WAN-to-LAN routing, an MII interface to seamlessly connect switch chips, extensive hardware and software support for VLAN tagging, QoS functionality to support business class routing applications, and features like auto-MDIX to minimize Ethernet support issues.

The **BCM6352** also provides a USB 1.1-compliant interface, two UART ports and a host of industry standard I/O ports (GPIO). The USB port functions as a LAN connection for a single Windows®-based PC. The UARTs can be used for console, modem or debug ports.

The **BCM6352** provides hardware acceleration for multi-line VoIP and VoDSL applications and includes a voice processor and four internal SLACs. It can also control external SLACs connected via the PCM highway, or from external DSPs using the embedded IOM-2 controller.

The **BCM6352** provides a high-speed multi-peripheral expansion bus to extend connectivity options to 802.11, Bluetooth™, HPNA, Ethernet, and other networking technologies from Broadcom and third parties.

The **BCM6352** is provided with a complete software stack and documentation to enable rapid hardware and software application development. Extensive online support is available to ensure efficient development of next-generation security and voice-enabled Ethernet, DSL, and PON CPE solutions.

For more information, please contact your Broadcom sales representative or Marc Abrams (mabrams@broadcom.com) at 949-585-5208.

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