



## ADSL2+ BRIDGE/ROUTER SOLUTION

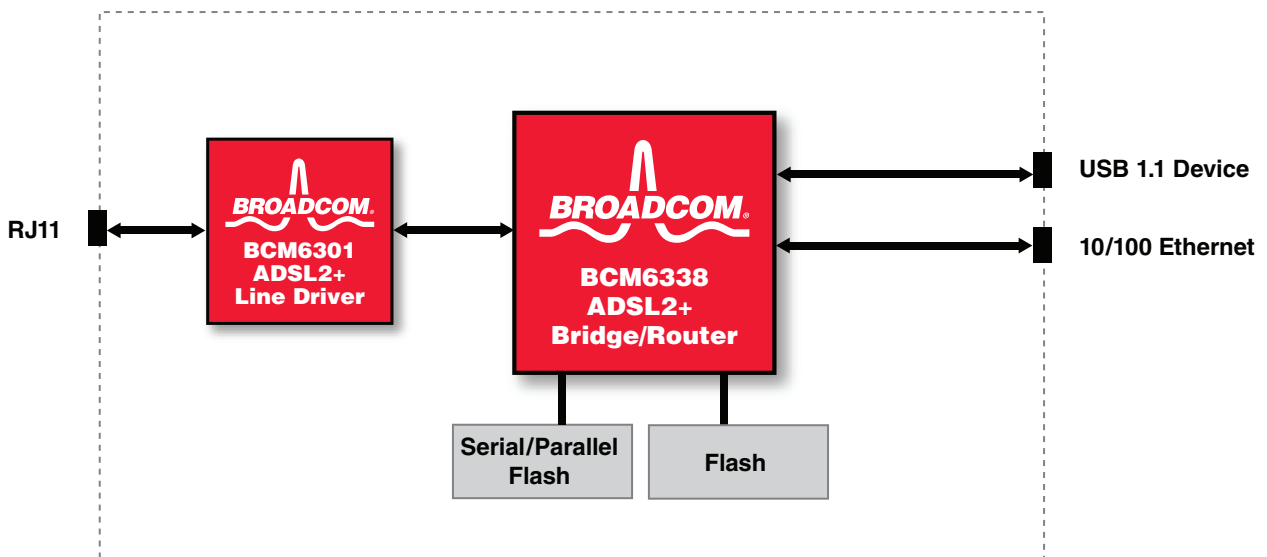
### FEATURES

- Single-chip ADSL2+ bridge/router solution with seamless, multiuser support of Ethernet and USB home LAN technologies
- G.992.1, G.992.2, G.992.3, G.992.5, and T1.413-compliant ADSL2+ transceiver and AFE with worldwide support for Annexes A, B C, M, and L
- Highly optimized MIPS32® CPU with MMU and TLB support
- Fully backward-compatible with Broadcom's existing BCM6345, BCM6335, and BCM6348 software and toolchain
- Integrated 10/100 Mbps IEEE 802.3u Ethernet MAC/PHY and USB interfaces
- Serial and parallel Flash interfaces with SDRAM support
- Extensive on-chip power management, EJTAG, GPIO, UART
- 17 mm × 17 mm package with 1.0 mm pitch for reduced PCB design complexity

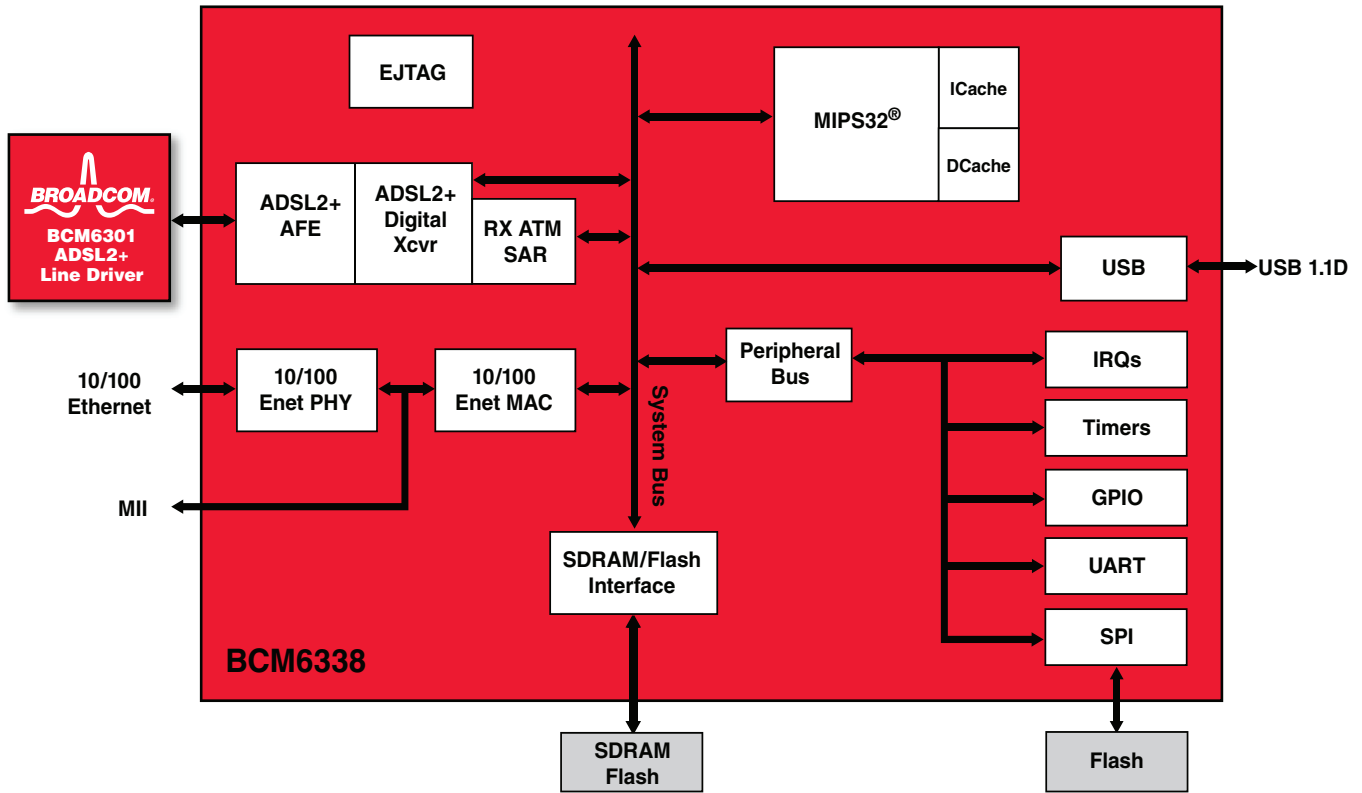
### SUMMARY OF BENEFITS

- High-performance 280DMIPS MIPS32 CPU supports wire-speed bridging and routing and advanced applications such as TR-69 or SNMP-based remote management.
- Embedded 10/100-Mbps Ethernet MAC with MII and 10/100 Mbps Ethernet PHY interface with Auto-MDIX to reduce customer support
- Concurrent Ethernet and USB 1.1 interfaces enabling simple plug and play connection of multiple PCs and other peripheral devices
- Support for industry-standard toolchains and operating systems, including Linux®, WinCE, VxWorks®, and eCOS™
- Consistent, field-hardened software platform across all Broadcom® CPE gateway devices

### BCM6338-Based Residential Bridge/Router



# OVERVIEW



## BCM6338 Reference Design

The BCM6338 combines an ADSL2+ transceiver and analog front end (AFE) with a high-performance MIPS32 CPU, a 10/100 Ethernet interface, and a USB 1.1 interface into a single high-performance, cost-effective monolithic device.

The ADSL2+ transceiver delivers 29 Mbps downstream and 3 Mbps upstream, dual-latency framing, and embedded operations channels for remote management of the customer premises equipment (CPE).

The 280DMIPS CMT™ CPU and supplied software control the ADSL2+ modem, perform wire-speed bridging and routing between the wide area network (WAN) and local area network (LAN) interfaces, and support custom application development with industry-standard EJTAG debuggers, toolchains, and development environments.

A hardware ATM SAR supports complete traffic shaping, management, and Quality of Service (QoS) for multiple VCs. The embedded universal serial bus (USB) and Ethernet ports provide a wide range of connectivity options to PCs, printers, storage, video devices, and Ethernet switches.

The BCM6338 enables the development of a completely integrated ADSL2+ bridge/router with advanced application capabilities and unmatched functional integration.

For more information, contact your local Broadcom sales representative.

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