

Broadcom

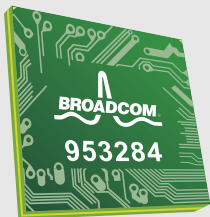
BCM953284MDU

Broadcom Reference Design

Connecting everything®



REFERENCE DESIGN FOR 1G EPON MDU PIZZA BOX PROFILE APPLICATIONS WITH VOIP



Highlights

- 24-port pizza box profile for 1G EPON MDU applications, based on BCM53284, BCM53003, BCM6517, and TK3715 devices.
- The BCM953284MDU is a reference platform that enables faster time-to-market.
- The reference system is a comprehensive solution that includes the following components:
 - BCM53003: 600 MHz MIPS CPU,
 - BCM53284: 24-FE port with integrated 24 FE PHY,
 - TK3715: 1G EPON MAC, and
 - BCM6517: 24-channel VoIP DSP.
- Fully compliant with TR-101 and CTC 2.1 specifications.
- Integrated SDK to enable customers to customize software.

BCM953284MDU

Service Provider



Supported

Best Choice

Overview

The Broadcom® BCM953284MDU is a comprehensive reference design that enables customers to quickly design a 1G EPON MDU with a pizza box profile to deliver triple-play services to MDU/MTU subscribers. This reference design includes a 24-port FE switch with integrated 24 FE PHY, 600 MHz MIPS CPU, 1G/2G EPON MAC, and 24-channel VoIP DSP that supports multiple codecs (G.711, G.723, and G.729ab) and has support for 3-way calling, Line Echo Cancellation, and T.38. With low overall power consumption, this reference design is feature-rich and cost-optimized, enabling customers to develop competitive platforms in the shortest time possible.

Architectural Features

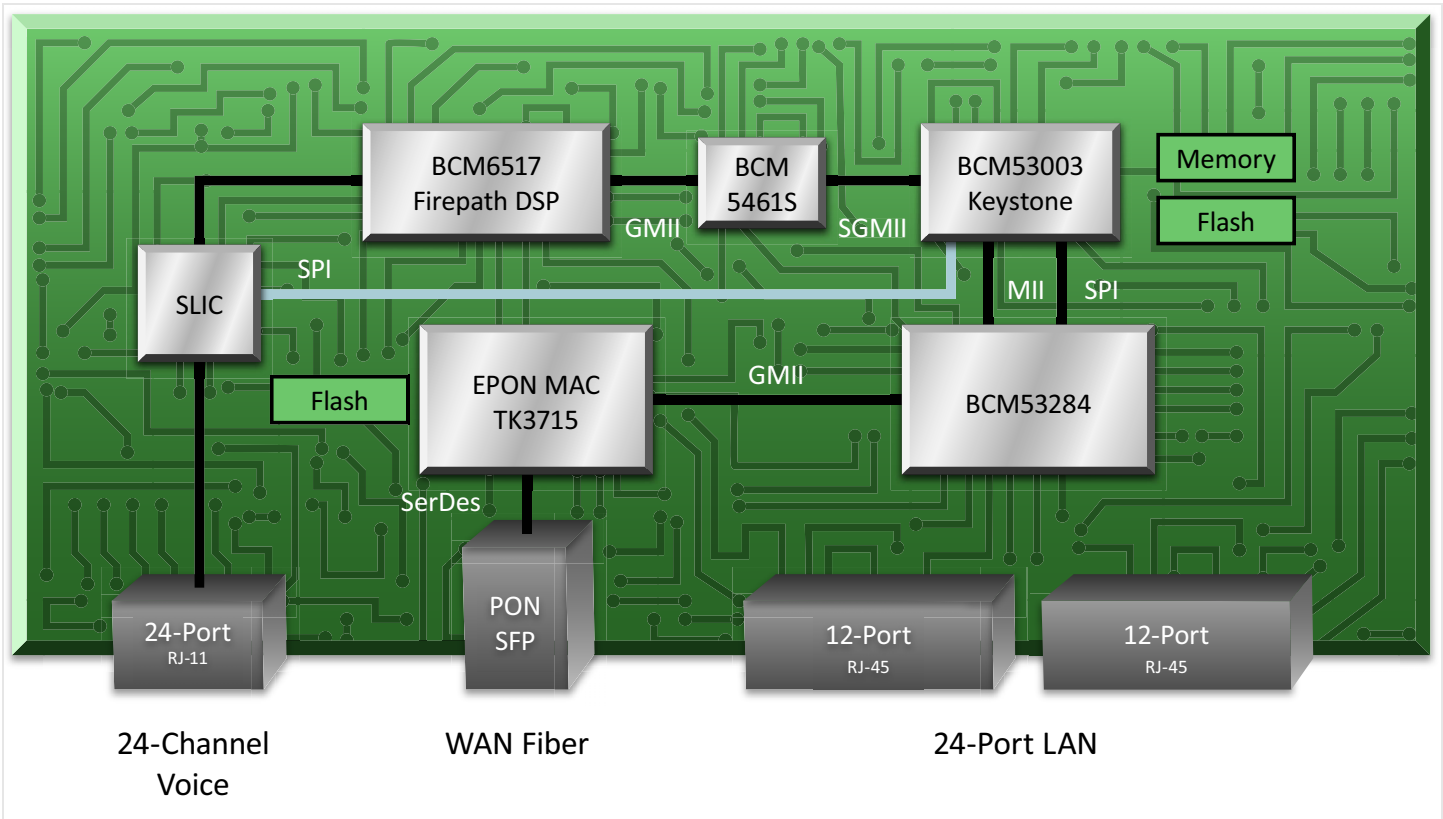
- 24 FE switch with 2 GbE interfaces and 24 integrated FE PHY
- 1G/2G EPON MAC with 8 bidirectional LLIDs
- 600 MHz MIPS CPU
- 24-Channel VoIP DSP with support for G.711, G.723, G.729ab, T.38, 3-way calling, and Line Echo Cancellation
- 1.5 MB packet buffer for switching, with 8 CoS queues
- Fully compliant with TR-101 and CTC 2.1 specifications
- IP Multicast duplication, Layer-3 IGMP, and MLD Snooping support
- 16K MAC addresses and 4K VLAN
- ContentAware™ processor in switch with 1536 ACL entries
- IPv6 support

Product Family Features

- Proven high-performance architecture.
- Enables cost-optimized, high-bandwidth MDU systems for delivering triple-play services to MDU/MTU subscribers.
- Integrated SDK enables shorter product development cycle and accelerates time-to-market.
- Flexible VLAN services; VLAN translation and tag manipulation.
- Proven interop for EPON deployment at leading Telcos worldwide.
- Feature-rich VoIP DSP supports easy deployment for high-density Voice applications.
- Superior QoS, Classification, Filtering, and Security enables Per-flow/Per-class SLA guarantees.
- Low power consumption with integrated PHY.

Target Markets

- Service Provider Access markets, delivering triple-play services to MDU/MTU subscribers, through 1G EPON pizza box profile devices.



BCM953284MDU Block Diagram

Ordering Information

Part Number

Reference design platform

BCM953284MDU

About Broadcom

Broadcom Corporation is a major technology innovator and global leader in semiconductors for wired and wireless communications. Broadcom® products enable the delivery of voice, video, data and multimedia to and throughout the home, the office and the mobile environment. We provide the industry's broadest portfolio of state-of-the-art system-on-a-chip and software solutions to manufacturers of computing and networking equipment, digital entertainment and broadband access products, and mobile devices.

These solutions support our core mission: Connecting everything®.

Broadcom, one of the world's largest fabless communications semiconductor companies, with 2010 revenue of \$6.82 billion, holds more than 4,800 U.S. and 2,000 foreign patents, and has more than 7,800 additional pending patent applications, and one of the broadest intellectual property portfolios addressing both wired and wireless transmission of voice, video, data and multimedia.

A FORTUNE 500® company, Broadcom is headquartered in Irvine, Calif., and has offices and research facilities in North America, Asia and Europe. Broadcom may be contacted at +1.949.926.5000 or at www.broadcom.com.

