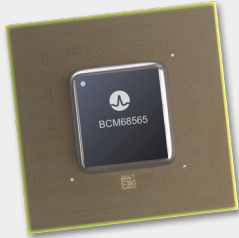


Product Brief



Key Features

- Multicore Arm CPU achieves 10K DMIPS
- Dual-issue runner packet processor enables wire-speed layer 2, 3, 4 packet processing
- Internal SerDes circuitry enables glueless interface to the MSA optical transceivers and BOSA
- Integrated Fiber WAN interfaces support ITU GPON, XGS-PON, XG-PON, NG-PON2, and Active Ethernet up to 10G
- Ethernet LAN ports support includes single 10G Energy Efficient Ethernet PHY up to 10G, four 1G Energy Efficient Ethernet PHYs, and a Single XFI/USXGMII-S interface
- PCIe Gen3 for dual-band Wi-Fi support
- High-speed memory architecture with DDR4, LPDDR4, and DDR5 support
- Flexible flash memory support
- Four-channel PCM interface
- Integrated single USB host controller
- Advanced power management
- Dedicated security processor (SMC) that enforces secure boot and other security features
- Dying gasp circuitry

BCM68565

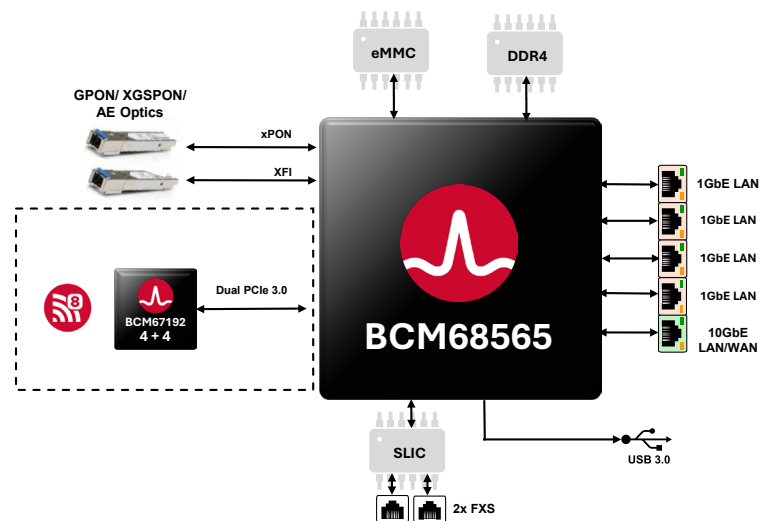
10G ITU-PON/Active Ethernet Gateway

Overview

The Broadcom® BCM68565 is a highly integrated 10G ITU-PON/Active Ethernet Gateway system-on-a-chip, optimized for rich service delivery and intelligent access applications. This 12th-generation fiber SoC integrates a PON MAC, a 10GbE PHY, a XFI/USXGMII-S port, four 1GbE PHYs, a PCM interface, a multilane PCIe port, USB, and DDR/Flash memory controllers. Managed by a multicore Arm CPU, the BCM68565 provides unrivaled throughput, QoS, and system security.

The BCM68565 is powered by a multicore Arm CPU with 10K DMIPS and Broadcom 6th-generation dual-issue network packet processor (DI-XRDP) that enables unmatched service application flexibility with benchmark performance. Each executes independently, giving maximum flexibility for the concurrent processing of CPE applications and high-throughput networking services. With field-proven and ITU/IEEE-interoperable software, the BCM68565 enables low-risk development and the fastest time-to-market implementations of HGU and SFU applications.

Block Diagram



Note: The BCM68565 features require BP3 provisioning and additional licensing, which are not all enabled by default. Refer to the BP3 Portal for licensing. For per-feature design, contact your Broadcom representative.

Applications

- Residential Fiber-to-the-Home (FTTH)
- Multi-gigabit Fiber CPE
- 10G PON Wi-Fi Ethernet Gateway



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