

BCM56685



108 Gbps INTEGRATED MULTILAYER ETHERNET SWITCH

FEATURES

- Seventh Generation of Broadcom[®] Switch Technology, supporting switching and routing
- Nonblocking architecture, line rate for all packet sizes
- Port configurations tailored for highly integrated access system network termination or customer-facing line cards
- Latest Carrier Ethernet transport protocols: MPLS/VPLS and 802.1ah (PBB)
- TR-101/156 compliant VLAN translation
- Control plane offload of 802.1ag CCM: message initiation and fault monitoring in hardware
- Broadcom time synchronization suite: 1588v2 hardware support, G.8261-compliant Synchronous Ethernet, and the BroadSync TM interface
- Carrier grade with robust memory protection schemes
- PCI Express[®], SGMII, and PCI options for host processor interconnect

SUMMARY OF BENEFITS

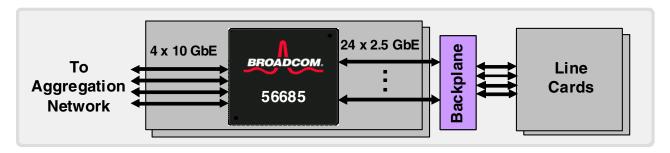
- Highly integrated, purpose-built solution for next-generation DSL and PON access equipment
- Delivers the most popular existing and emerging transport protocols in a flexible implementation for protocol bridging applications
- Supports virtually all QinQ network architectures with comprehensive VLAN manipulations
- Hardware-based Ethernet OA&M support for guaranteed performance; completely alleviates software support of high-bandwidth functions
- Time synchronization suite provides all the tools necessary to deliver systems for new timing-aware applications like mobile backhaul
- Dynamic memory technology delivers optimum usage of packet buffer resources
- Advanced congestion management for lossless packet delivery
- Leverages Broadcom's unified API for software reuse and faster time-to-market

108 Gbps Integrated Multilayer Ethernet Switch

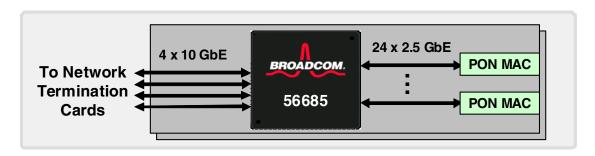
4 x 10 GbE or 4 x HiGig[™] **XAUI XAUI XAUI XAUI** PCI Express or PCI L2 Switching Ethernet OAM Statistics TR-101/156 ContentAware™ Processing Engine Synchronous Ethernet VLAN Translation IPv4/v6 Routing 1588v2 Dynamic Memory Management With VRF and RPF 10/100/1000/2500 Ethernet MACs 24 x 2.5 GbE/GbE



OVERVIEW



Access Chassis Network Termination Card



Access Chassis Customer-Facing Line Card

The BCM56685 is Broadcom's seventh generation of the StrataXGS® product line. It is a highly integrated multilayer switch designed to address new and emerging Service Provider networking applications. The BCM56685 offers the right combination of cost-effective Carrier Ethernet technology, with the ability to deliver outstanding system solutions for broadband access equipment. With its 2.5 Gbps interfaces the BCM56685 is tailored for direct interfaces to GPON ports and dense DSL line cards, minimizing total system power, board area, and solution cost.

Ordering information and configurations appear in the following table.

Part Number	1000/2500 Ports	XAUI TM /HiGig2 TM Ports	CPU Interface
BCM56685	24	4	PCIe
BCM56689	24	4	PCI

 $\label{eq:broadcom} \textbf{Broadcom}^{\textcircled{\tiny{0}}}, BroadSync^{TM}, ContentAware^{TM}, StrataXGS^{\textcircled{\tiny{0}}}, HiGig^{TM}, HiGig^{TM}, the pulse logo, \\ \textbf{Connecting everything}^{\textcircled{\tiny{0}}}, and the Connecting everything logo are among the trademarks of Broadcom Corporation and/or its affiliates in the United States, certain other countries and/or the EU. Any other trademarks or trade names mentioned are the property of their respective owners. \\$

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