

Product Brief



Key Features

- Non-blocking architecture with line-rate performance
- Flexible I/O that supports 1G/2.5G/5G/10G/25G/40G/50G/100G port speeds
- Support for direct connect to mGig PHYs
- Line-rate MACsec
- VxLAN support for next-generation wireless LAN and SDN support
- Support for port extender applications (eTAG, VN-Tag, HiGig™)
- VRF to support isolated Layer 3 domains in a multi-tenant environment
- Full IPv4 and IPv6 routing support
- IEEE 1588 transparent clock and synchronized Ethernet (SyncE)
- TSN support
 - 802.1CB, 802.1Qci, 802.1Qch
- Hardware support for Ethernet OAM
- Energy Efficient Ethernet support

Applications

- Enterprise
- Service Provider

BCM56070

440 Gb/s TSN Multilayer Switch

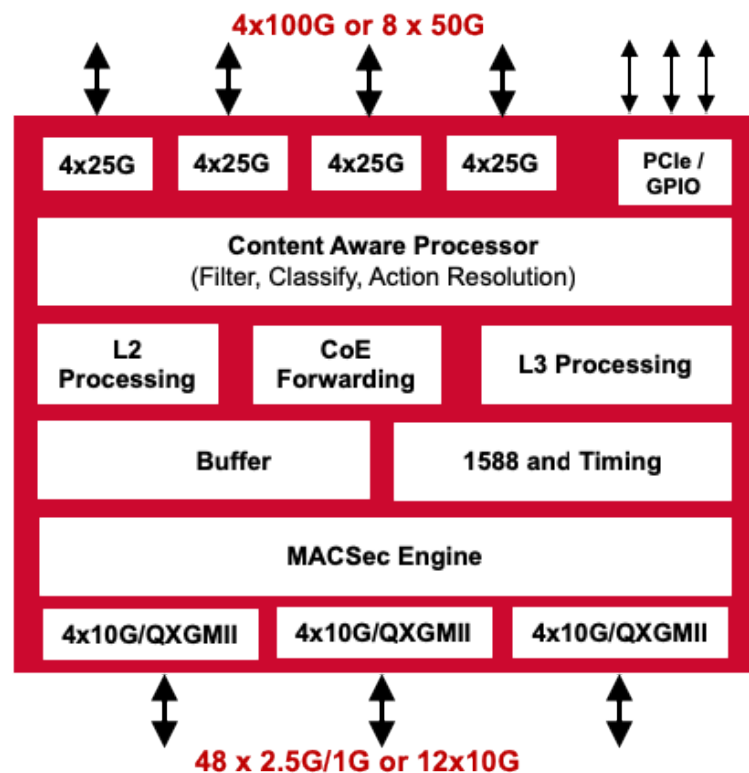
Overview

The Broadcom® BCM56070 is a small footprint, low-power, line-rate Ethernet switch with flexible I/O that supports varied port speeds from 1G through 100G, with the ability to directly connect to multi-Gig PHYs. The device supports up to 16x25G ports, 28x10G ports, or 48x2.5G ports.

The BCM56070 adds new functionalities that are aligned with networking market trends, especially security, reliability, and telemetry. The BCM56070's integrated line-rate MACsec engine enables secure networking and supports MACsec encryption, providing flexibility for port or flow-based encryption. The BCM56070's integrated OAM engine simplifies fault isolation and performance monitoring, relieving CPU load for some of these functions and improving network reliability. The BCM56070 device provides support for redundancy in centralized chassis environments.

The low-power, versatile I/O with high and low speed ports, and TSN makes this device attractive for enterprise, connectivity, and mobile applications. The BCM56070 is part of the proven StrataXGS® family with the unified SDK enabling quick time-to-market.

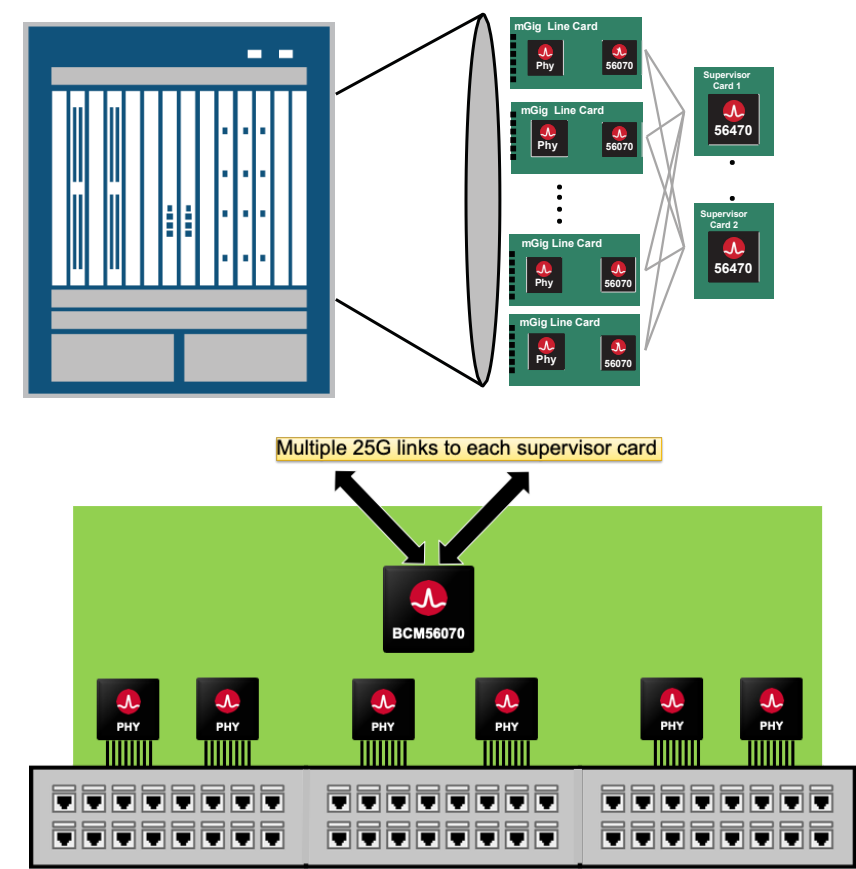
Figure 1: BCM56070 Block Diagram



Benefits

- Flexible I/O supporting all port speeds from 1G to 100G, including multiGig
- QSGMII/QXGMII I/O enables high-density 48-port line cards
- Provides reliability in a centralized chassis through dual supervisor support (active/standby and active/active)
- Secure network with line-rate MACsec engine
- Low power and small footprint
- Quick time-to-market that leverages proven StrataXGS architecture and a Broadcom unified SDK API

Figure 2: 56070-based Line Cards (48 × 2.5G) in a Centralized Chassis



Ordering Information		
Part Number	Description	I/O Bandwidth
BCM56070	48 x 2.5G centralized chassis line card switch with MACsec	440G
BCM56071	48 x 1G centralized chassis line card switch with MACsec	320G
BCM56072	48 x 2.5G centralized chassis line card switch	440G
BCM56071N	48 x 1G centralized chassis line card switch	320G