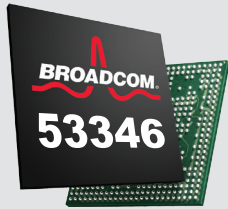


BCM53346

64 Gb/s Multilayer Switch



Key Features

- Low-power Websmart switch for SMB networks.
- Small footprint, low-power, and flexible switch based on StrataXGS® IV architecture.
- EEE capability is ideal for SMB desktop environment where there are sustained periods of inactivity.
- HiGig stacking for seamlessly stacking with other StrataXGS switch families.
- Stack 2x HGd[13]: sufficient for 24G line rate when cascading two devices.

Overview

The Broadcom® BCM5334X System-on-a-Chip (SoC) switch family offers industry-leading integration and performance in a small footprint. The device offers up to 24 multilayer GbE ports and four XFI ports. Offering the industry's highest level of integration, the BCM5334X has embedded GPHYs and a powerful Arm A9 processor. The BCM5334X is ideal for cost-sensitive edge connectivity applications, such as WebSmart switches for Small and Medium Businesses (SMB).

The BCM5334X device family offers I/O configurations that address key segments of edge connectivity. A single device supports the popular 24x GbE switch with 4x 10GbE uplinks.

Two devices can be connected to build nonblocking 48x GbE switch systems with 4x 10GbE uplinks. To reduce the overall system cost, the device is engineered for low-power operation to enable 48x GbE + 4x 10GbE (or 13G stacking) designs. Furthermore, the device I/O is optimized for board layout.

When used with the Broadcom QSGMII PHY, the BCM53346 device can be connected to the PHYs without any trace crossovers. The optimized I/O map reduces system design effort and enables low-cost PCB design. The BCM5334X device family offers many advanced features, such as IEEE 802.1Q VLAN, VLAN translation, enhanced Denial of Service (DoS) protection, IPv4 and IPv6 support, advanced ContentAware™ Engine, IEEE

802.1p Quality of Service (QoS), Energy Efficient Ethernet (EEE), and HiGig™ stacking.

Features

- Highly integrated 24-port 10/100/1000 Mb/s Ethernet switch SoC
- Integrated copper 10/100/1000 PHYs
- Two integrated QSGMII interfaces supporting eight 10/100/1000 Mb/s ports
- Up to four XFI/two XFI and two HiGig[13] uplink/stacking ports
- Up to two HiGig-Duo™[13] ports for nonblocking 48-port stackable design
- Supports HiGig, HiGig2™, and HiGig-Lite stacking protocols
- Nonblocking architecture, line rate for all packet sizes
- Fully integrated packet buffer
- Intelligent Memory Management Unit (MMU) optimized for handling bursty data traffic
- L2, IPv4/IPv6 L3 packet classification
- Flexible Access Control List (ACL)
- Full IPv4 and IPv6 L3 routing support
- Enhanced DoS attack statistics gathering
- EEE support
- Support for industrial temperature
- Low power consumption
- 1588 Timestamping support (2-Step)

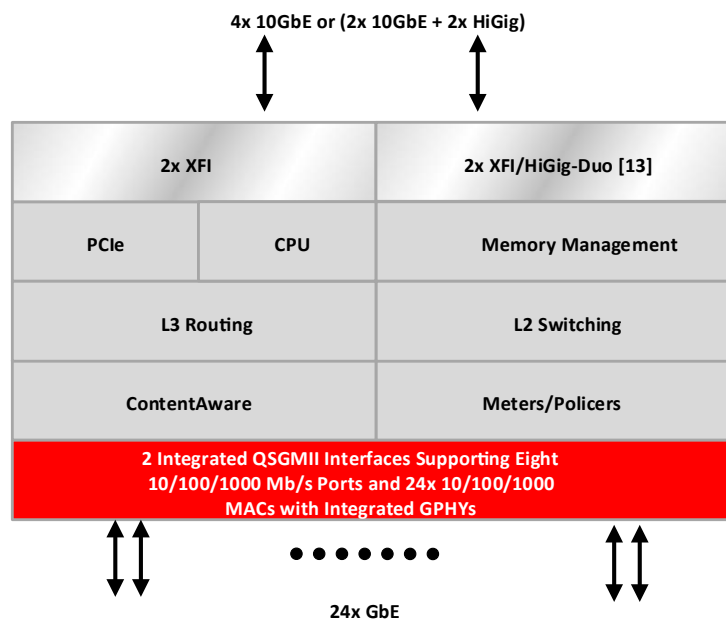
Benefits

- Based on industry-leading and market-proven StrataXGS® IV architecture.
- Single-chip switch SoC optimized for Websmart connectivity applications for SMB networks.
- Seamless connection to StrataXGS fabric using the HiGig2 protocol.
- Enhanced memory technology delivers optimum usage of packet-buffer resources.
- Eight flexible Class of Service (CoS) queues per port assure the lowest latency to high-priority traffic.
- IPv6 support provides future-proofing.
- Leverages Broadcom unified API for software reuse and quick time-to-market.
- Optimized ball pattern for low-cost PCB design and single-system clock source.

Key Features

- Integrated CPU
- Two integrated QSGMII interfaces supporting eight 10/100/1000 Mb/s ports
- Advanced three-stage ContentAware Engine
- Optimized for Websmart applications in SMB networks
- Nonblock, full wirespeed performance for 24x GbE and 48x GbE systems
- 10GbE uplinks or HiGig[13] stacking
- Embedded GPHYs and High-Performance Arm A9 CPU
- Enhanced buffer management for robust burst absorption
- Flexible ContentAware Engine for ACL and QoS
- Full IPv4 and IPv6 support
- Low-power Energy Efficient Ethernet support
- Enterprise-class L2 scalability

Figure. BCM53346 Block Diagram



Ordering Information	
Part Number	Description
BCM53346	24 GbE + 4x XFI/Stack
BCM53344	24 GbE + 4x1G
BCM53343	16 GbE + 4x1G
BCM53342	8GbE