

VSC7423

7-Port, Layer-2 Gigabit Ethernet Switch with VeriTime™, 5 Integrated Copper PHYs, and Embedded 32-bit CPU

I/O Configurations

- Up to 5x 10/100/1000 Cu PHY
- Up to 5x 10/100/1000 SGMII
- 2x quad-speed 10/100/1000/2500 Mbps SGMII
- Up to 7 ports supporting 100BASE-FX or 1000BASE-X SerDes

Architecture

- Shared memory buffer with per-port and CoS memory management
- 4 Mb packet memory
- Hierarchical MEF-compliant policing and scheduling
- 8 priorities and 8 CoS queues per port with strict or deficit-weighted round robin scheduling
- Shaping/policing per queue and per port
- Advanced security and prioritization available through a multi-stage TCAM engine
- 5x integrated 10/100/1000BASE-T Ethernet copper transceivers (IEEE 802.3ab-compliant) with ActiPHY™ and Perfect-Reach™ power management and VeriPHY™ cable diagnostics
- Integrated 416 MHz MIPS CPU with DDR2 and serial flash interface

Layer 2 Switching

- 802.1Q VLAN switch with 8K MACs and 4K VLANs
- Push/pop up to two VLAN tags
- IPv4/IPv6 multicast
- Policing with storm control and MC/BC protection
- RSTP and MSTP support
- Hardware and software-based learning
- Link aggregation (IEEE 802.3ad)

- Independent and shared VLAN learning (IVL, SVL)
- Jumbo frame support

Key Specifications

- 27 mm × 27 mm BGA thermally enhanced package
- Operating temperature –40 °C to 125 °C

VeriTime™ Features

- Level-2 IEEE 1588v2
- Boundary clock and transparent clock

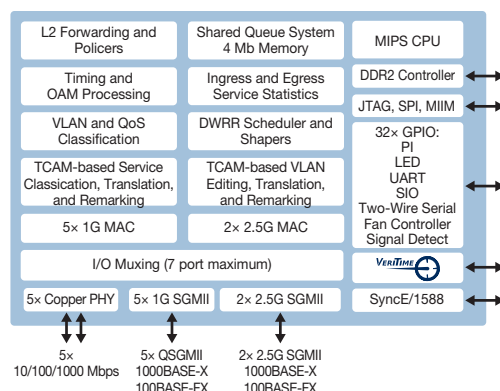
Carrier Ethernet Features

- Provider Bridging (PB)
- MEF E-Lane, E-Line, and E-Tree services
- Dual leaky bucket policers with re-marking and statistics
- OAM and protection switching
- Level-1 Synchronous Ethernet (SyncE)
- Enhanced Carrier Ethernet API

Related Products

Visit www.microsemi.com for information about these related products:

- VSC7428 11-Port, Layer 2, GbE Carrier Ethernet Switch with VeriTime™
- VSC7460/VSC7462 24/12-Port GbE Carrier Ethernet Switch with VeriTime™
- VSC7416/VSC7418 7/11-Port, 1GbE Carrier Ethernet Switch with VeriTime™
- VSC7429 26-Port Layer 2 Gigabit Ethernet Switch with VeriTime™, 12 Copper PHYs, and Embedded CPU



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