

VSC7438

32 Gbps Carrier Ethernet Switch with ViSAA™, VeriTime™, MPLS-TP, and L3 Routing Support

Features

- 2 × 10 GbE ports
- 12 × 1 GbE SGMII/SerDes ports (up to 12 × 2.5 GbE)
- 12 × 1 GbE (3× QSGMII) + 2 × 10 GbE
- PCIe for control/status register access
- Integrated shared packet memory
- Fully nonblocking wire-speed switching performance for all frame sizes
- 8 QoS classes with thousands of H-QoS queues
- Energy Efficient Ethernet (EEE)
- Priority-based flow control
- Integrated MIPS-24KEc CPU with DDR3 SDRAM controller

Layer-2 Switching

- 802.1Q VLAN switch with 32K MACs and 4K VLANs
- Classify and modify up to three VLAN tags
- IPv4/IPv6 multicast
- Policing with storm control and MC/BC protection
- RSTP and MSTP support
- Hardware-based and software-based learning
- Link aggregation (IEEE 802.3ad)
- Independent and shared VLAN learning (IVL, SVL)
- Jumbo frame support

Layer-3 Routing

- 4K/1K IPv4/IPv6 table entries (LPM and hosts)
- 2K/512 IPv4/IPv6 (S, G, V) or (*, G, V)
- 128 router legs
- Simultaneous L3 routing with Provider Bridging and MPLS/MPLS-TP service switching

VeriTime™ Features

- L2 IEEE 1588v2
- Boundary clock and transparent clock

ViSAA™ and Carrier Ethernet Features

- Provider bridging (Q-in-Q) and MPLS/MPLS-TP
- Linear and ring protection switching
- MEF CE 2.0 ready: 8 COS EVCs with per-EVC dual-rate policing and shaping, queueing, and statistics
- Advanced security and per-service classification available through multistage TCAM engines
- Hardware-based Ethernet and MPLS-TP OAM: Up-MEPs and Down-MEPs, Four layers of nested MEPs
- Hardware-based Y.1564 service activation test
- L1 Synchronous Ethernet

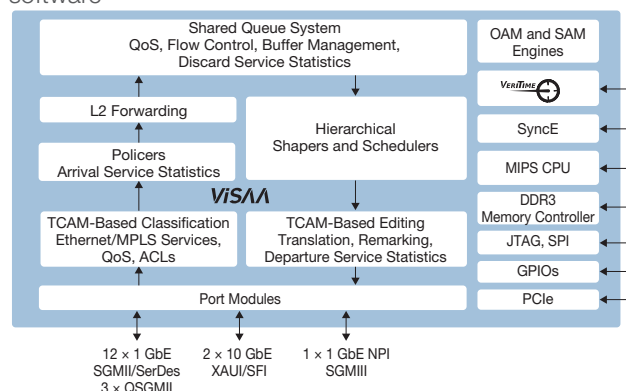
Key Specifications

- 27 mm × 27 mm FCBGA
- Low power dissipation
- Operating temperature –40 °C to 125 °C

Related Products

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

- VSC7460 Jaguar-1™ and VSC7462 LynX-1™ 24-port and 12-port Carrier Ethernet switches with VeriTime™
- VSC7418 Serval-1™ 11-port Carrier Ethernet switch with MPLS-TP and VeriTime™
- VSC7416 Serval-Lite™ 6-port Carrier Ethernet switch with MPLS-TP Support and VeriTime™
- Microsemi Unified API and Microsemi CEServices application software



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