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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





VSC7514 10-Port L2 Gigabit Ethernet Switch

Microsemi's next generation switch family delivers a flexible Industrial Ethernet and SMB solution.

The VSC7514 is a 10-port Gigabit Ethernet (GbE)/SMB switch supporting a combination of 1G and 2.5G Ethernet ports.

The device provides a rich set of Industrial and Enteprise Ethernet switching features. Using multistage Microsemi TCAM technology, it delivers VLAN and QoS processing that enables delivery of differentiated services, security through intelligent frame processing, and egress frame manipulation.

For industrial applications, VSC7514 integrates Microsem's distributed timing technology that delivers the industry's most accurate IEEE 1588v2 timing implementation. A powerful 500 MHz CPU enables full management of a Layer 2 Ethernet switch solution.

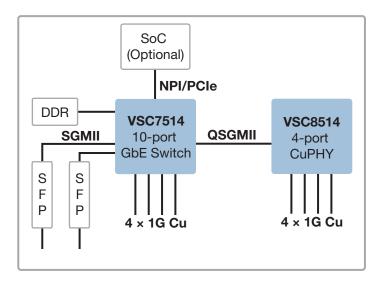
A comprehensive application programming interface (API) and software development package accelerate time-to-market for managed Ethernet applications. The software API package integrates easily with third-party software, preserving existing software investments.

Highlights

- Four dual media copper/SGMII ports
- Two 1G SGMII ports
- Two 1G/2.5G SGMII ports (one port can be configured as QSGMII)
- Fully-managed L2 switching features
- Industrial temperature range
- Flexible PCIe and NPI CPU interfaces

Applications

- Fully-managed L2 switch
- Industrial Ethernet switch



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VSC7514 10-Port L2 Gigabit Ethernet Switch

Features

- Main configuration: Four dual media copper ports, two 1G SGMII ports, and two 1G/2.5G SGMII ports
- Integrated 500 MHz MIPS 24KEc CPU with MMU and DDR3/ DDR3L SDRAM controller
- PCIe 1.x and NPI CPU interface
- Internal shared memory buffer (8 queues per port)
- Jumbo frame support
- Strict priority and DWRR scheduler/shaper

Layer 2 Switching

- 802.1Q VLAN switch with 4K MACs and 4K VLANs
- Push/pop/translate up to three VLAN tags on ingress and egress
- Policing with storm control and MC/BC protection
- RSTP and MSTP support
- Independent and shared VLAN learning (IVL, SVL)
- Hardware-based and software-based learning
- TCAM-based classification and VCAP-II security

Multicast

- Layer 2
- IGMP and MLD Snooping

Industrial Ethernet

- Integrated timing: VeriTime™ (1588v2) and SyncE support
- Ethernet ring protection switching (ERPS)

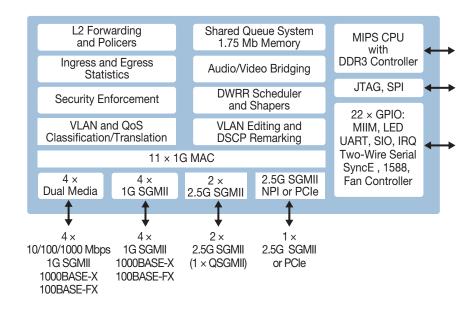
Key Specifications

- 17 mm × 17 mm CABGA package
- -40 °C to 125 °C temperature range

Related Products

Visit <u>www.microsemi.com</u> for information about these related products:

- SparX-IV GbE switches
- VSC8514 copper PHYs
- Unified API, WebStaX, SMBStaX, and IStaX software





Microsemi Corporate Headquarters One Enterprise, Aliso Viejo, CA 92656 USA Within the USA: +1 (800) 713-4113 Outside the USA: +1 (949) 380-6100 Fax: +1 (949) 215-4996 Email: sales.support@microsemi.com www.microsemi.com Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

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