

## VSC7440 10-Port L2/L3 Enterprise Gigabit Ethernet Switch with 10 Gbps Links

The next-generation switch family from Microsemi delivers a flexible Enterprise and Industrial Ethernet solution.

The VSC7440 SparX-IV-34<sup>™</sup> device is an SMB/SME Ethernet switch with up to 10 ports supporting a combination of 1G, 2.5G, and 10G Ethernet ports.

The device provides a rich set of Enterprise Ethernet switching features. Using multistage Versatile TCAM technology (VCAP™), it delivers VLAN and QoS processing that enables delivery of differentiated services, security through intelligent frame processing, and egress frame manipulation.

For industrial applications, VSC7440 integrates VeriTime™, Microsemi's patent-pending timing technology that delivers the industry's most accurate IEEE 1588v2 time stamping. Combined with the PTP software and an advanced Servo algorithm, Microsemi offers the most accurate 1588 solution.

A powerful 500 MHz CPU enables full management of a Layer 2 and Layer 3 Ethernet switch solution.

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

### **Highlights**

- Up to four 1G, four 2.5G, and two 10G ports
- Up to two integrated copper PHYs and two 10G SerDes
- Fully-managed L2 switching and L3 forwarding features
- Extended temperature range
- Easy upgrade within the SparX-IV family to higher bandwidth (including 10 GbE port support)

### **Applications**

- High-end residential gateway, small-scale 11ac Wi-Fi aggregation
- Fully-managed L2/L3 switch
- SMB/SME Ethernet switches



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# VSC7440

#### 10-Port L2/L3 Enterprise Gigabit Ethernet Switch with 10 Gbps Links

#### **Features**

- Four 10/100/1000 ports (up to two integrated copper PHYs)
- Four 10/100/1000/2500 ports
- Two 10/100/1000/2500/10000 ports
- Integrated shared packet memory
- Fully non-blocking wire-speed switching performance for all frame sizes
- 8 QoS classes per port
- Energy Efficient Ethernet (EEE)
- Priority-based control
- Integrated MIPS-24KEc CPU with DDR3 SDRAM controller
- PCle for control/status register access

### Layer 2 Switching

- 802.1Q VLAN switch
- Classify and modify up to three VLAN tags
- 512/256 IPv4/IPv6 multicast groups using snooping
- 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

#### Layer 3 Routing

- 1K/256 IPv4/IPv6 table entries (LPM and hosts)
- 512/256 IPv4/IPv6 (S, G, V) or (\*, G, V)

#### **Multicast**

- Layer 2
- IPv4 and IPv6
- IGMP and MLD

#### **Industrial Ethernet**

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

#### **Key Specifications**

- 19 mm × 19 mm BGA
- -40 °C to 110 °C temperature range

#### **Related Products**

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

- SparX-III GbE switches with integrated copperPHYs
- VSC8504 4-port copper PHYs
- Unified API, WebStaX™, and SMBStaX™ 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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#### ООО "ЛайфЭлектроникс"

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Тел: +7 (812) 336 43 04 (многоканальный) Email: org@lifeelectronics.ru

#### www.lifeelectronics.ru