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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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## VSC7415

### 6-Port SGMII Gigabit Ethernet Switch with VeriTime™, Integrated DPLL, and Gigabit Ethernet PHYs

Microsemi's Serval-T switch family offers the highest performance, market-ready solution for IEEE 1588v2.

The VSC7415 Serval-T™ switch targets small cell equipment to deliver Enterprise and Mobile Backhaul. VSC7415 integrates VeriTime™, Microsemi's patent-pending timing technology that delivers the industry's most accurate IEEE 1588v2 time stamping. Combined with PTP software and an advanced Servo algorithm, Microsemi offers the most accurate 1588 solution.

The VSC7415 Gigabit Ethernet switch contains four 10/100/1000 Mbps ports (up to two copper ports), and two 10/100/1000/2500 Mbps ports. An integrated DPLL simplifies system design, and provides proven interoperability between switch and DPLL. The Versatile Content Aware Processor (VCAPTM) architecture is scalable and flexible for secure applications. It features advanced TCAM classification in both ingress and egress.

VSC7415 supports IPv4/IPv6 Layer-3 (L3) routing and IPv4/IPv6 L3 multicast groups. L3 security features include source guard and unicast Reverse Path Forwarding (uRPF) tasks.

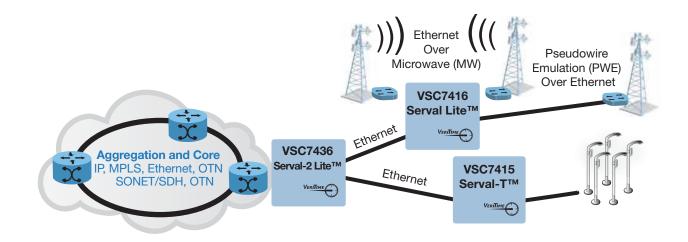
VSC7415 supports Microsemi's application programming interface for easy integration with third-party application software. The device also supports Microsemi's IStaX application software, dramatically reducing time-to-market.

### **Highlights**

- Integrated timing VeriTime™
  SyncE
  DPLL
- Layer-3 routing support

### **Applications**

- Microcell, femtocell, and picocell base stations
- Small cell backhaul systems



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## 6-Port SGMII Gigabit Ethernet Switch with VeriTime™, Integrated DPLL, and Gigabit Ethernet PHYs

#### **Features**

- $4 \times 10/100/1000$  ports (up to two copper)
- 2 × 10/100/1000/2500 ports
- Advanced security and classification available through multistage TCAM engines
- Integrated DPLL
- Integrated shared packet memory
- Fully nonblocking wire-speed switching performance for all frame sizes
- 8 QoS classes
- Energy Efficient Ethernet (EEE)
- Integrated MIPS-24KEc CPU with DDR3 SDRAM controller
- PCle for control/status register access

## Layer 2 Switching

- 802.1Q VLAN switch
- Provider bridging (Q-in-Q)
- 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 groups
- Wirespeed routing

#### VeriTime™ Features

- IEEE 1588v2
- L1 Synchronous Ethernet
- 1588 Slave PEC and SyncE EEC
- Boundary clock and transparent clock
- PTP software and advanced Servo algorithm

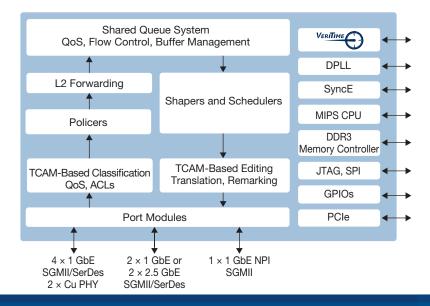
### **Key Specifications**

- 19 mm × 19 mm BGA
- Low power dissipation
- Operating temperature -40 °C to 125 °C

#### **Related Products**

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

- VSC7414-01 SparX-III™ 11-port SGMII Gigabit Ethernet Enterprise switch with VeriTime™
- VSC7416 Serval Lite<sup>™</sup> 7-port Layer-2 SGMII Gigabit Ethernet switch with MPLS/MPLS-TP support and VeriTime<sup>™</sup>
- VSC7436 Serval-2 Lite™ 10-port Carrier Ethernet switch with ViSAA™, VeriTime™, and integrated Gigabit Ethernet PHYs
- Unified API and CEServices application software





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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.