

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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









# **VSC7435**

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

Microsemi's Carrier Ethernet switch family offers the highest performance, market-ready solution for MEF CE 2.0 service delivery.

The VSC7435 Serval-TE™ switch targets IP Edge demarcation and access equipment to deliver Enterprise and Mobile Backhaul. VSC7435 is based on Virtual Service Aware Architecture (ViSAA™), a silicon implementation that offers an unmatched level of Service Edge and Carrier Ethernet (CE) networking features. ViSAA achieves wirespeed performance for even the most feature-rich Carrier Ethernet services. VSC7435 also 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 VSC7435 Carrier 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. VSC7435 provides a rich set of Carrier Ethernet switching features such as hierarchical QoS, hardware-based OAM (Ethernet and MPLS/MPLS-TP) and SAM, protection switching, and Synchronous Ethernet. Using provider bridging (Q-in-Q) and MPLS/MPLS-TP technology, VSC7435 delivers MEF CE 2.0 EVCs. The Versatile Content Aware Processor (VCAP™) architecture is scalable and flexible for secure applications. It features advanced TCAM classification in both ingress and egress. Per-EVC features include a rich set of statistics, OAM for end-to-end performance monitoring, and dual-rate policing and shaping.

VSC7435 supports IPv4/IPv6 Layer-3 (L3) routing and IPv4/IPv6 L3 multicast groups. L3 security features include source guard and unicast Reverse path Forwarding (uRFP) tasks.

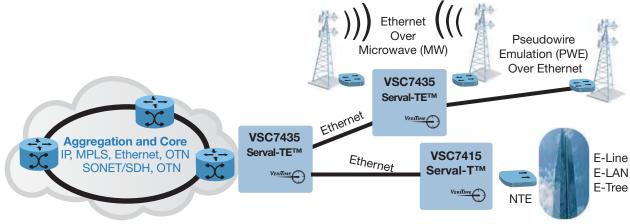
VSC7435 supports Microsemi's application programming interface for easy integration with third-party application software. The device also supports Microsemi's CEServices application software, dramatically reducing time-to-market.

## **Highlights**

- Virutal Service Aware Architecture (ViSAA™)
- Integrated timing VeriTime™
   SyncE
   DPLL
- MPLS/MPLS-TP and Layer-3 routing support
- MEF UNI and NNI functionality
- Hardware-based Ethernet OAM, performance monitoring, and Service Activation Measurement (SAM)
- Network demarcation
- Hierarchical QoS priority for queuing and subscriber separation
- Service protection (linear, ring)

## **Applications**

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



Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any pattent rights, licenses, or any other IP rights, whether with regard to such information is entirely by information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.



# **VSC7435**

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

#### **Features**

- 4 x 10/100/1000 ports (up to two copper), 2 x 10/100/1000/2500 ports
- Integrated DPLL and 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
- 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 groups
- Simultaneous L3 routing with Provider Bridging and MPLS/ MPLS-TP service switching

#### VeriTime™ Features

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

#### **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

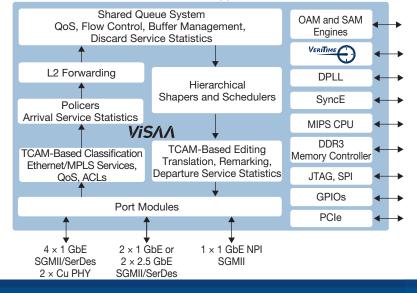
# **Key Specifications**

- 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:

- VSC7468 Jaguar-2<sup>™</sup> and VSC7464 LynX-2<sup>™</sup> 24-port and 12-port Carrier Ethernet switches with VeriTime<sup>™</sup>
- VSC7438 Serval-2<sup>™</sup> 32 Gbps Carrier Ethernet switch with ViSAA<sup>™</sup>, VeriTime<sup>™</sup>, MPLS-TP, and L3 routing support
- VSC7415 Serval-T<sup>™</sup> 6-Port SGMII Gigabit Ethernet Switch with VeriTime<sup>™</sup>, Integrated DPLL, and Gigabit Ethernet PHYs
- Unified API and CEServices application 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, FFGAs, 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.