

# VSC7434

24×1-Gigabit and 2×10/12 Gbps + 2× 10 Gbps L2 Enterprise Ethernet Switch with High Performance Stacking and 416 MHz CPU

Microsemi's next-generation switch family delivers a comprehensive end-to-end Enterprise Ethernet solution.

The VSC7434 E-StaX-III-68 stackable Enterprise Ethernet switch contains twenty-four 10/100/1000 Mbps Ethernet ports and four 10G XAUI ports. Two of the four XAUI ports can also be configured as two 12 Gbps stacking ports.

VSC7434 provides a rich set of Enterprise Ethernet switching features. Using multistage Versatile TCAM technology (VCAP), it delivers VLAN and QoS processing, enabling the delivery of differentiated services, security through intelligent frame processing, and egress frame manipulation.

The VSC7434 device contains a powerful 416 MHz CPU, enabling full management of both a standalone switch as well as a full stackable Ethernet switch solution.

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

## **Highlights**

- Supports 12G stacking with less than 100 ms failover
- Management of 800 switch ports from a single IP address
- Lowest latency architecture
- New shared buffer memory architecture

## **Applications**

- Stackable Smart switch
- Fully managed L2/L3 switch
- Fully managed Stackable switch

#### 24 x 1 GbE + 2x 10 GbE Managed Stackable Switch 24 x 1 GbE + 4x 10 GbE Managed Switch 12G (HDMI) 12G (HDMI) Stacking 10G XAUI 10G XAUI 10G XAUI 10G XAUI VSC7434 VSC7434 10G XAUI E-StaX-III-68™ E-StaX-III-68T 10G XAUI Switch Switch VSC8488 VSC8484 Dual 10G Quad 10G XAUI-to-SFP+ XAUI-to-SFP+ Transceiver 12 × SGMII 12 × SGMII 12 × SGMII 12 × SGMII Transceiver VSC8512-01 VSC8512-01 VSC8512-01 VSC8512-01 12-Port 12-Port 12-Port 12-Port 10/100/1000BT 10/100/1000BT 10/100/1000BT 10/100/1000BT SGMII PHY SGMII PHY SGMII PHY SGMII PHY SFP+ SFP+ SFP+ SFP+ MagJacks MagJacks MagJacks MagJacks 12 × 1G Copper 12 × 1G Copper 2× 10G Fiber 12 × 1G Copper 12 × 1G Copper

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### **Features**

- 24x 1 GbE ports with SGMII, 1000BASE-X SerDes, 100BASE-FX
- Up to 8× 2.5 GbE ports
- 4x or 2x 10 GbE XAUI ports supporting four-lane 10 Gbps XAUI or two-lane 10 Gbps VAUI
- 2x 12 Gbps stacking ports supporting four-lane 10 Gbps XAUI or two-lane 10 Gbps VAUI
- Internal shared memory buffer (8 queues per port)
- Jumbo frame support
- · Strict priority and DWRR scheduler/shaper
- Integrated 416 MHz MIPS CPU
- 27 mm × 27 mm FCBGA

## Layer 2 Switching and Layer 3 Forwarding

- 802.1Q VLAN switch with 32K MACs and 4K VLANs
- Push, pop, and translate ingress/egress
- Policing with storm control and MC/BC protection
- RSTP and MSTP support
- Independent and shared VLAN learning (IVL, SVL)
- Hardware and software-based learning
- TCAM-based classification and VCAP-II security
- Layer 3 unicast and multicast routing

#### Multicast

- Layer 2
- IPv4 and IPv6
- IGMP and MLD

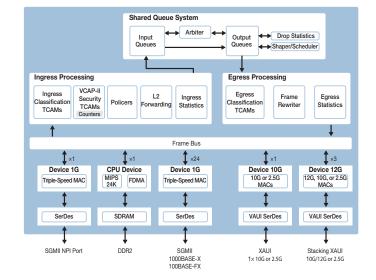
## Stacking

- VStaX<sup>™</sup> stacking protocol
- Hardware support for shortest path forwarding
- Fast failover within 100 ms
- 2× 12 Gbps uplink bandwidth using standard cables
- Stacking of up to 16 switches
- Stack-side congestion management

#### **Related Products**

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

- SparX-III nonstackable Gigabit Ethernet switches with integrated copper PHYs
- VSC8512 12-port copper PHY
- VSC8488 and VSC8484 dual and quad 10G optical PHYs





Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
email: sales.support@microsemi.com
www.microsemi.com

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