

VSC7454

26-Port L2/L3 Stackable Gigabit Ethernet Switch with 10 Gbps Links

Microsemi's next generation switch family delivers a flexible Enterprise solution.

The VSC7454 E-StaX-IV-44[™] device is a 44 Gbps managed L2/L3, stackable Ethernet switch with up to 26 ports supporting a combination of 1G, 2.5G, and 10G Ethernet ports. The 10 GbE ports can also be configured as stacking ports.

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

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

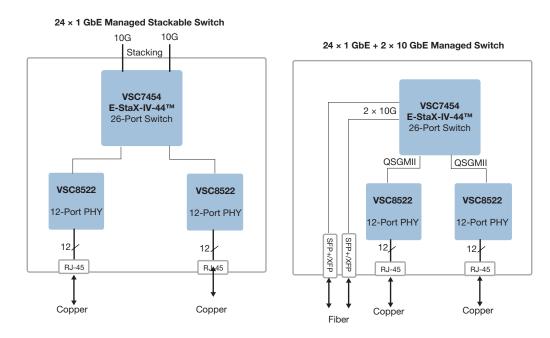
A comprehensive application programming interface (API) and software development package accelerates time-to-market for managed Ethernet applications. The software API package integrates easily with third-party software, preserving existing software investments.

Highlights

- Up to 26 x 1G, 16 x 2.5G, and 2 x 10G
 Ethernet ports
- Fully managed L2 switching and L3 forwarding features
- Stacking up to 16 switches

Applications

- Stackable smart switch
- Fully managed L2/L3 switch
- Fully managed stackable switch



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Features

- Main port configurations:
 - 26 × 1G SGMII
 - 24×1 G SGMII + 2×1 0G SFI/XAUI/RXAUI
 - 16 × 2.5G SGMII + 2 × 10G SFI/XAUI/RXAUI
- Additional 10/100/1000 Mbps SGMII/SerDes node processor
- Integrated 500 MHz MIPS 24KEc CPU with MMU and DDR3/ DDR3L SDRAM controller
- PCle 1.x CPU interface
- Internal shared memory buffer (8 queues per port)
- Jumbo frame support
- Strict priority and DWRR scheduler/shaper

Layer 2 Switching and Layer 3 Forwarding

- 802.1Q VLAN switch with 32K 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- 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

- VStaXTM stacking protocol
- Hardware supported shortest path forwarding for optimal bandwidth and resiliency
- 2 x 10 Gbps uplink bandwidth in rings
- Stacking of up to 16 switch boxes in ring or chain topology
- QoS consistency across stack

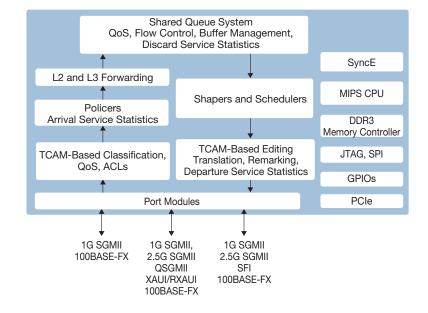
Key Specifications

- 27 mm × 27 mm FCBGA
- 0 °C to 110 °C operating temperature

Related Products

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

- SparX-IV nonstackable GbE switches
- VSC8512 and VSC8522 12-port copper PHYs
- Unified API, WebStaX[™], and SMBStaX[™] software





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