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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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VSC7442

52-Port L2/L3 Enterprise and Industrial Ethernet Switch

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

The VSC7442 SparX-IV-52™ device is a 52 Gbps SMB/SME Industrial Ethernet switch with up to 52 Gigabit Ethernet (GbE) 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, VSC7442 integrates VeriTime™, Microsemi's patent-pending timing technology that delivers the industry's most accurate IEEE 1588v2 timing implementation.

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.

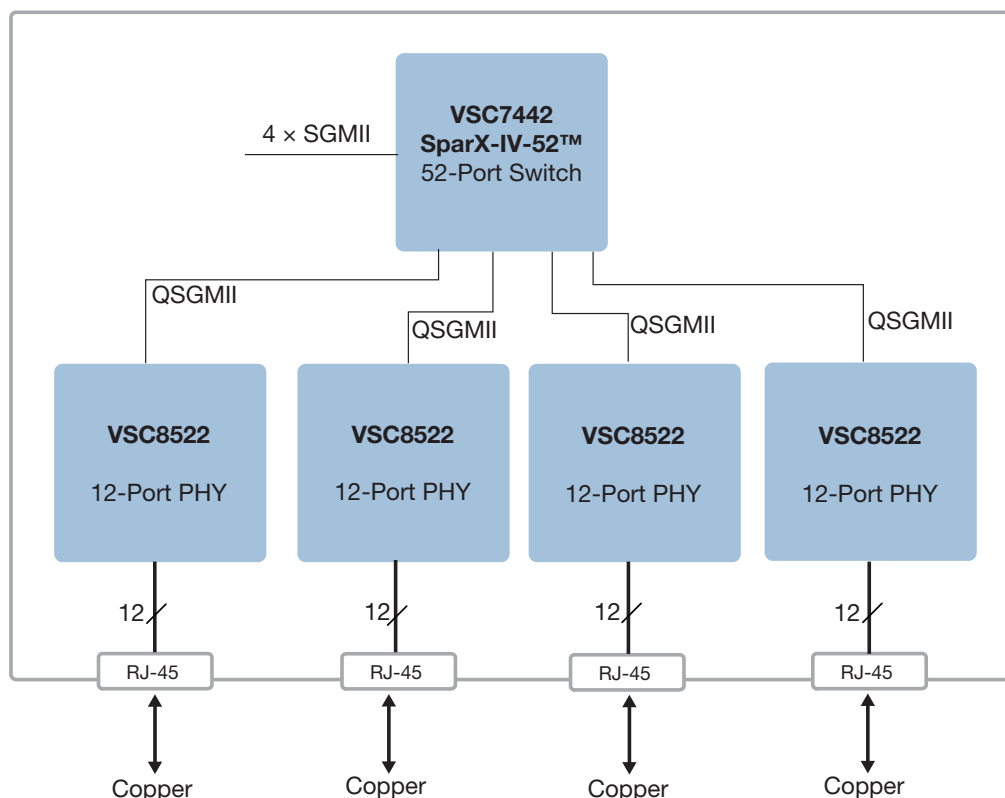
Highlights

- Single-chip 52 Gbps switching solution
- Fully managed L2 switching and L3 forwarding features
- Industrial temperature range
- Easy upgrade within SparX-IV family to higher bandwidths including 10 GbE port support

Applications

- Fully managed L2/L3 switch
- Industrial Ethernet switch

52 × 1 GbE Managed L2/L3 Switch



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52-Port L2/L3 Enterprise and Industrial Ethernet Switch

Features

- 12 × QSGMII ports + 4 × 1G SGMII ports (main configuration)
- Additional 10/100/1000 Mbps SGMII/SerDes node processor
- Integrated 500 MHz MIPS 24KEc CPU with MMU and DDR3/DDR3L SDRAM controller
- PCIe 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

Industrial Ethernet

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

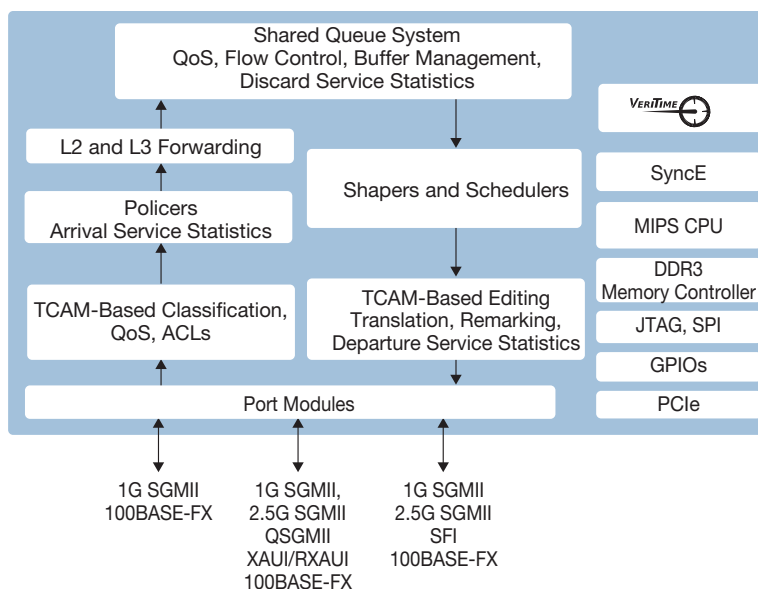
Key Specifications

- 27 mm × 27 mm FCBGA
- -40 °C to 110 °C operating temperature

Related Products

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

- SparX-III nonstackable GbE switches with integrated copper PHYs
- VSC8512 and VSC8522 12-port copper PHYs
- Unified API, WebStaX™, and SMBStaX™ software



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