

# SparX-5

## L2/L3 Enterprise Gigabit Ethernet Switch

### Summary

Microchip's next-generation switch family delivers a flexible enterprise Ethernet solution.

SparX-5 is a 64 Gbps to 200 Gbps SMB/SME Ethernet switch family supporting a combination of 1G, 2.5G, 5G, 10G and 25G Ethernet ports.

The device provides a rich set of enterprise Ethernet switching features. Using multistage versatile content aware processor (VCAP™) technology, it delivers VLAN and QoS processing that enables delivery of differentiated services, security through intelligent frame processing and flexible frame manipulation.

A powerful 1 GHz dual-core CPU enables full management of a Layer 2 and Layer 3 Ethernet switch solution. A comprehensive Application Programming Interface (API) and turnkey 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.

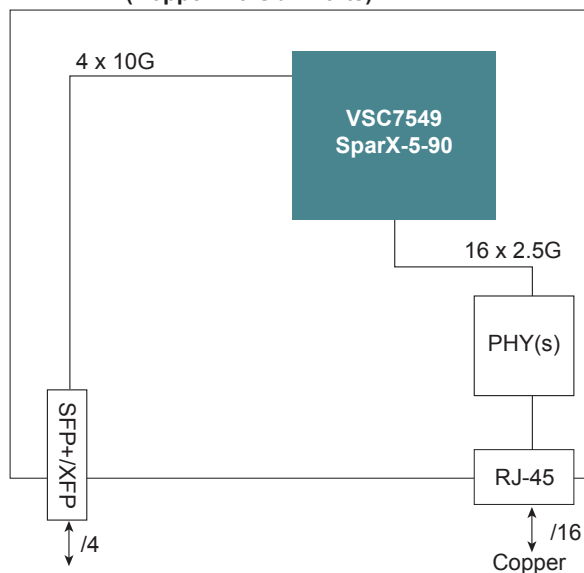
### Highlights

- Up to 64 × 1G/2.5G, 32 × 5G, 20 × 10G and 8 × 25G Ethernet ports
- Fully managed L2 switching and L3 routing features
- Commercial temperature range

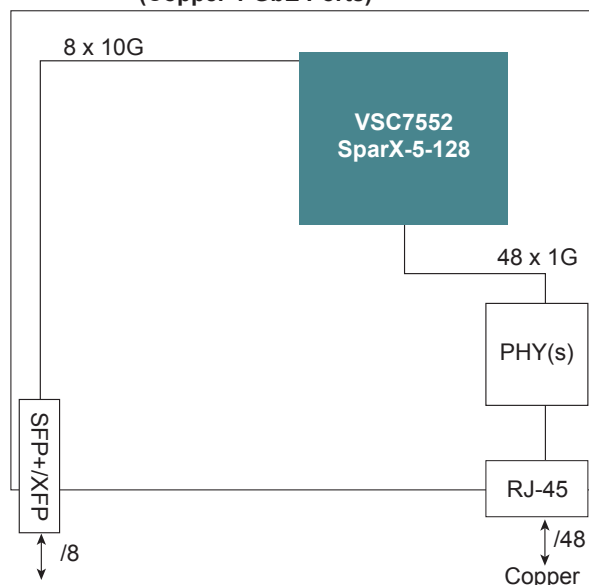
### Applications

- Fully managed L2/L3 switch
- SMB/SME aggregation and distribution

**16 x 2.5 GbE + 4 x 10 GbE Managed Switch  
(Copper 2.5 GbE Ports)**



**48 x 1 GbE + 8 x 10 GbE Managed Switch  
(Copper 1 GbE Ports)**



## Family and Features

Family of devices supporting from 64 Gbps to 200 Gbps nonblocking switching bandwidth.

Part Number	Product
VSC7546	SparX-5-64
VSC7549	SparX-5-90
VSC7552	SparX-5-128
VSC7556	SparX-5-160
VSC7558	SparX-5-200

- Flexible interface options including 1/2.5/5/10/25 GbE
- Additional 1/2.5 GbE node processor interface port
- 1 GHz dual-core Arm® with DDR3/DDR4 SDRAM controller
- PCIe 2.0/3.0 CPU interface
- Internal shared memory buffer (8 queues per port)
- Jumbo frame support
- Strict priority and DWRR scheduler/shaper
- Port extender IEEE 802.1BR

## Layer 2 Switching and Layer 3 Routing

- IEEE 802.1Q VLAN switch with 32K MACs and 4K VLANs
- Push/pop/translate up to two 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-based and software-based learning
- TCAM-based classification and VCAP-II security
- Layer 3 unicast and multicast routing
- IP/IP and GRE tunnels
- VRF-Lite

## Multicast

- Layer 2
- IPv4 and IPv6
- IGMP and MLD

## PoE

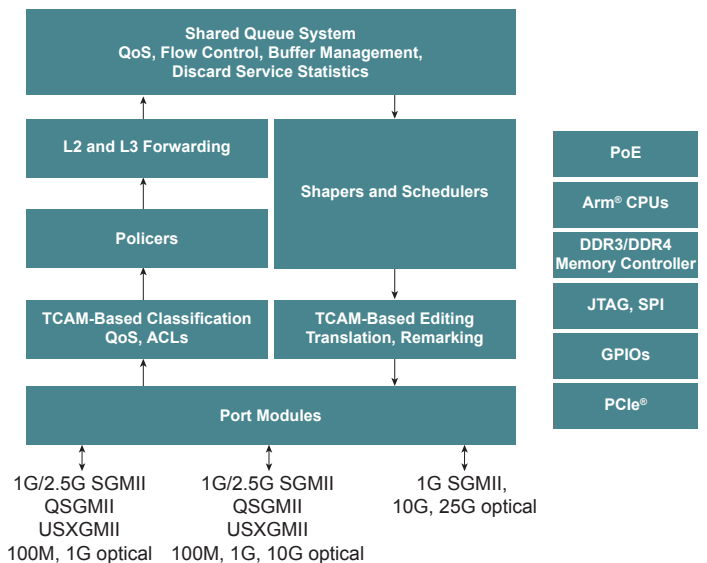
- Integrated PoE controller

## Key Specifications

- 25 mm × 25 mm BGA
- 0°C to 105°C operating temperature

## Related Products

- SparX-5i Industrial Ethernet switches
- 1G Ethernet PHYs
- PoE PSE ICs (forward compatible with IEEE 802.3bt)
- Unified API, WebStaX™, and SMBStaX™ software



## For More Information

[www.microsemi.com](http://www.microsemi.com)

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