

ENTERPRISE SWITCH

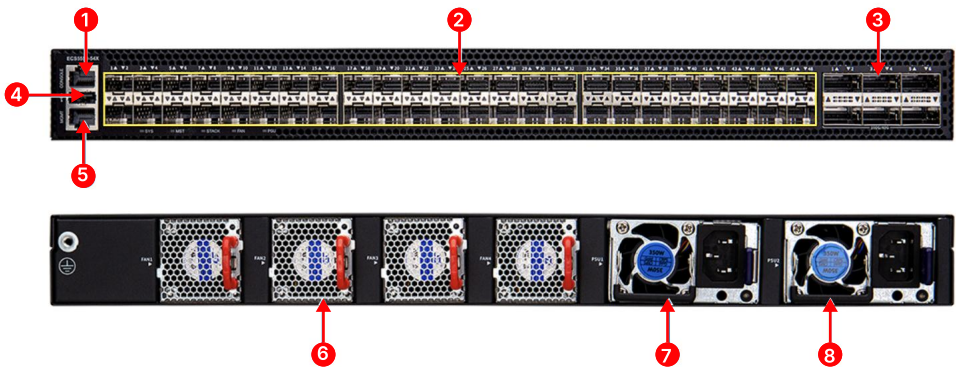
VE1010-48S



The VE1010-48S is a high-performance Layer 2+/Lite Layer 3 switch with 48 × 10G SFP+ ports and 6 × 100G QSFP28 uplinks. It offers a 2.16 Tbps switching capacity for fast, non-blocking performance. The switch supports VLAN, OSPF, and BGP for advanced networking. It includes hot-swappable power supplies and fans for high availability. It's ideal for modern enterprise and data center networks.

Key Features and Benefits

- ▶ Best price-performance 10 Gigabit Ethernet aggregation switch with 100G uplinks
- ▶ ITU-T G.8032 ERPS L2 ring protection with <50ms convergence time
- ▶ Comprehensive and field-proven software features for ISPs/carriers, providing broadband access, IPTV services
- ▶ Enhanced security, IPv6, and multicast features
- ▶ Simple management (CLI, SNMP, Web)
- ▶ Complete Private MIB to fully control and monitor the switch via customer's EMS



Description

1. RJ-45 console port	5. RJ-45 management port
2. 48 x 10G SFP+ ports	6. 3+1 fans
3. 6 x 100G QSFP28 ports	7. AC PSU 1
4. USB management port	8. AC PSU 2

Technical details

Ports	1G/2.5G/10G SFP+ Ports	48
	100G/40G QSFP28/QSFP+ Uplink Ports	6
	RJ-45 Console Port	1
	USB port	1
Performance	Switching Capacity	2.16 Tbps
	Forwarding Rate	600 Mpps
	eMMC	8 GB
	DRAM	4GB/w EEC
	MAC Address Table	32 K
	Jumbo Frames	10 KB
Mechanical	Dimension (W x D x H) mm	442 x 420 x 43.6
	Weight	TBD
Power Supply	AC PSU: 100-240 VAC, 50/60 Hz	Yes
	DC PSU: -36 – -72 VDC	Yes
	Max System Power Consumption (Watts)	230 W
Environmental	Operating Temperature	-5 – 50°C
	Storage Temperature	-40 – 70°C
	Operating Humidity (non-condensing)	5% – 95%
	Storage Humidity (non-condensing)	5% – 95%
	Environmental Regulation Compliance: WEEE	Yes
	Environmental Regulation Compliance: RoHS	Yes

L2 Features

- 100G QSFP28/40G QSFP+ interface
 - 100GBASE-SR4/LR4
 - 100G DAC/AOC
 - 100G to 4x 25G DAC or AOC breakout cable
 - 40GBASE-SR4/LR4
 - 40G DAC/AOC
 - 40G to 4x 10G DAC or AOC breakout cable
 - 10G SFP+ fiber interfaces
 - IEEE 802.3ae (10GBASE-SR/LR)
 - IEEE 802.3z (1000BASE-SX/LX)
 - 10G DAC/AOC
 - Broadcast/Multicast/Unknown Unicast storm control
 - Digital Diagnostic Monitoring (DDM)
 - Flow Control:
 - IEEE 802.3x for full duplex mode
- IGMP Snooping:
 - IGMP Authentication
 - IGMP Filtering
 - IGMP Immediate Leave
 - IGMP Proxy reporting
 - IGMP Querier
 - IGMP v1/v2/v3 snooping
 - IGMP Throttling
 - ITU-T G.8032 Ethernet Ring Protection:
 - Multiple-ring network
 - Revertive operation mode
 - Sub 50 msec convergence
 - Jumbo frames 10KB
 - L2 Virtual Private VLAN:

Technical details

- CDP/PVST+ filtering
 - L2 Protocol tunneling (xSTP, CDP, VTP and PVST+, LLDP)
 - Selective Q-in-Q
 - Q-in-Q
 - Link Aggregation:
- IEEE 802.3ad Link Aggregation Control Protocol Load Balancing: SA+DA, SA, DA, SIP+DIP, SIP, DIP Static Trunk
 - Trunk Groups: 28, up to 8 GE/4 10G ports per group
- Multi-chassis Link Aggregation
- MVR (Multicast VLAN Registration): Supports 5 multicast VLANs
- Port mirroring
 - VLAN Mirror/Mac Based Mirror/ACL Mirror
- Remote port mirror (RSPAN)
- SFP+ port support:
 - IEEE 802.3ae (10GBASE-SR/LR/ZR/ER) 10G DAC/AOC
 - IEEE 802.3z (1000BASE-SX/LX/LHX/ZX)
- Spanning Tree Protocol:
 - BPDU Guard
 - BPDU filtering
 - BPDU transparent
 - IEEE 802.1D Spanning Tree Protocol (STP)
 - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
 - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), 64 instances
 - Loopback detection
 - Root Guard
- Static LACP

L2 Features-continued

- VLANs:
 - IEEE 802.1Q VLAN
 - GVRP
 - IEEE 802.1v Protocol-based VLAN
 - IP Subnet-based VLAN
 - MAC-based VLAN
 - Port-based VLAN
 - Supports 4K VLAN
 - Traffic Segmentation

QoS Features

- Auto Traffic Control
- Egress policy map (police rate, remark CoS/DSCP)
- Ingress policy map (police rate, remark CoS)
- Priority Queues: 8 hardware queues per port
- Rate Limiting (ingress and egress, per port base)
 - GE: Resolution 64 Kbps ~ 1,000 Mbps
 - 10G: Resolution 64 Kbps ~ 10,000 Mbps
 - 100G: Resolution 64Kbps ~ 100,000Mbps
- Traffic Classification:
 - DSCP
 - IEEE 802.1p CoS
 - IP Precedence
 - IP standard access control list (source IP)
 - IP extended access control list (source/destination IP, protocol, TCP/UDP port numb
 - MAC Access control list (source/destination MAC, Ethertype, priority ID/VLA
- Traffic Scheduling:
 - Strict Priority
 - Strict + WRR
 - Weighted Round Robin

Security

- Denial of Service
- DHCP Snooping
- DHCP Info
- DHCP Option 82
- DHCP Option 82 Relay
- Dynamic ARP Inspection
- Dynamic VLAN Assignment, Auto QoS
- Guest VLAN
- IEEE 802.1X port based and MAC based authentication
- IEEE 802.1X Supplicant
- IP Source Guard
- IPv6 ACL
- L2/L3/L4 Access Control List:
 - IP standard access control list (source IP)
 - IP extended access control list (source/destination IP, protocol, TCP/UDP port numbe
 - MAC Access control list (source/destination MAC, Ethertype, priority ID/ VL

Technical details

- Login Security
- MAC authentication
- Management interface access filtering (SNMP, Web, Telnet)
- Port security
- PPPoE IA
- RADIUS authentication
- RADIUS accounting
- SSH (v2.0) for security Telnet
- SSL for HTTPS
- SNMPv3
- TACACS + authentication
- TACACS + accounting
- TACACS + authorization
- Voice VLAN
- Web authentication

IPv6 Features

- DHCPv6 Snooping
- HTTP over IPv6
- IPv4/IPv6 dual protocol stack
- IPv6 Address Types Stack: Unicast
- IPv6 Neighbor Discovery:
 - Address resolution
 - Duplicate address
 - Unreachable neighbor detection
- IPv6 Telnet support
- IPv6 TFTP support
- IPv6 Source Guard
- IPv6 Syslog support
- Manual configuration
- MLD Snooping v1/v2
- MVR6
- Remote IPv6 ping
- SNMP over IPv6
- Stateless auto-configuration

Management

- DHCP client for IP address assignment
- DHCP dynamic provision Option 66,67

- Firmware and Configuration:
 - Firmware upgrade via TFTP/HTTP/FTP/SFTP/SCP server
 - Multiple configuration files Configuration file upload/download via TFTP/HTTP/FTP/SFTP/SCP server
- IPv6 sFlow
- mDNS
- Remote log (RFC3164)
- RMON (groups 1, 2, 3 and 9)
- sFlow v4, v5
- SMTP (E-mail Notification)
- SNMP
- Supports LLDP (802.1ab)
- Switch Management:
 - CLI via console port or Telnet
 - Web management
 - SNMP v1, v2c, v3
- Syslog (local Flash)
- Zero Touch provisioning

Safety

- UL (CSA 22.2. NO 62368-1)
- CB (IEC62368-1)

Power Supply

- Power Input:
 - AC power supply module (100 – 240 VAC, 50/60 Hz)
 - DC power supply module (-36 – -72 VDC), project based*

Supported Transceivers and Cables

- 100GBASE-SX/LX
- 2.5GBASE-X
- 10GBASE-SR/LR/RJ45
- 40GBASE-SR4/LR4
- 40G DAC/AOC cable
- 40G to 4 x 10G DAC or AOC breakout cable
- 100GBASE-SR4/LR4
- 100G DAC
- 100G AOC
- 100G to 4 x 25G DAC or AOC breakout cable

Technical details

Recommended support

24x7 - 4 hours Response, Next Business Day Call to Resolution CTR

24x7 - 4 hours Response, 24 Hours Call to Resolution CTR

24x7 - 4 Hours Response, 6 Hours Call to Resolution CTR

Default support Next Business Day Consulting and deployment offerings are also available. Contact Vantageo representative for the more information.

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