

LA-SWM3-DC100G08X25G48M

Data Center White Box Switch 48 x 25G SFP28, 8 x 100G QSFP28



Overview

LA-SWM3-DC100G08X25G48M is a high port density switch with 48x25G SFP28 and 8x100G QSFP28 ports in a single 1RU for data centers and high-end campus networks. It is ideally suited for deployment at the server access layer in large enterprise data centers, with advanced best-in-class, open-source network platform that line-rate L2/L3 up to 4.0Tbps (2.0Tbpsx2) switching performance of Marvell Falcon is paired with multi service features.

Delivers high-performance, high interface density and low latency to allow enterprises and carriers to build cloud-oriented data center networks. Ideal spine and top of rack(ToR) solutions, allowing maximum flexibility, with port speeds spanning from 10Gbps to 100Gbps per port and port density that enables full rack connectivity to any server at any speed.

Use of Marvell Falcon ASIC and Intel Broadwell CPU with DDR4 memory and flash. Expansion enables custom software configurations. Supports the open source Open Network Install Environment(ONIE) for zero touch installation of SONiC networking operating system.

Features

- Compact 1RU standard, 19-inch rack mountable design
- Cut-through with ultra-low-latency
- 2 (1+1 redundant) Redundant Hot-swappable PSU
- 5 (4+1 redundant) Hot-swappable Fan
- 48 x 25 Gbps (SFP28) ports and 8 x 100 Gbps (QSFP28) ports
- Up to 2Tbps of switching I/O bandwidth (full duplex)
- Open automated configuration and zerotouch provisioning capabilities
- Simplify management of network environments

Specifications

Provided Fix Ports	48 x 25G SFP28, 8 x 100G QSFP28
Management Ports	1x RJ45 100/1000Base-T Out-of-band 1x RJ45 Console 1x USB2.0
Switching Chip	Marvell Falcon 98CX8514
CPU	Intel Broadwell-DE D1508
Memory	8GB DDR4
Storage	SSD: 64GB eMMC, optional M.2 STAT slot
Power Supply Units	2 x AC110~240V, 550w 1+1 Hot-swappable
Power Consumption	≤520 Watts
Fan Unit	5 (4+1 redundant) Hot swappable
Form Factor and Dimension	445×469×44mm (WxDxH)
Net Weight (kg)	9.6 Kgs
Operating Temperature	0°C ~ 45°C
Storage Temperature	-40°C ~ 70°C
Relative Humidity	5%-95% (non-condensing)
Operating Altitude	3000m max
MTBF	40 Years
MTTR	1 Hour
Switching Capacity	4.0 Tbps
Forwarding Rate	2.8 Gpps

Jumbo frames	Yes
Packet Buffer Size	24MB
Transmit Descriptors	192K
Bridge FDB Entries	Up to 256K
Router IPv4 Host Entries	Up to 256K
Router IPv6 Host Entries	Up to 128K
Router LPM	IPv4 - up to 512K unicast prefixes IPv6 - up to 256K unicast 64-bit prefixes
TCAM Resources (Shared between TTI, IPCL and EPCL Classification Engines)	36K x 10B rules (18K x 10B per dual control pipe)
Virtual Ports (ePorts)	8K
Bridge Domains (eVLANs)	Up to 8K
Multicast Physical Port Groups (VIDX)	Up to 4K
Multicast Virtual Port Groups (eVIDX)	16K
Multicast Linked List (MLL) Entries	16K
Tunnel-Start/ARP Table	Up to 192K ARP entries Up to 48K Non-IPv6 Tunnel-Start entries Up to 24K IPv6 Tunnel-Start entries
Router Next Hop Entries	24K
Router ECMP Groups	12K
ePort ECMP Groups	16K
Trunk ECMP Group	Up to 4K
L2 ECMP Table (Shared by ePort ECMP group and Trunk ECMP groups)	16K ECMP members Each ECMP group may contain up to 4K EMCP members
Hardware OAM Flows	16K ECMP members 4K OAM flows (1K OAM flows per control pipe)
Spanning Tree Groups	Up to 4K

Optional Software

*License fee will be quoted separately according to different project management requirements.

*Optional features supported by Hardware but limited to Software roadmap.

Layer 2 Feature list

- 802.1D Spanning Tree Protocol/802.1 w Rapid
- Spanning Tree / 802.1 s Multiple Spanning Tree / RPVST+
- VLAN's with QinQ
- 802.1Q VLAN's / Trunking support
- Private VLAN's
- 802.1 AB Link Layer Discovery protocol
- 802.3x Flow control
- 802.1x Authentication*
- 802.3ad Link aggregation group support
- Multi-chassis Link aggregation group support
- CFM 802.1ag*
- Y.1731*
- VxLAN support with EVPN
- TRILL*
- QCN, ETS, PFC*



Utilizing Diverse Platforms and Operating Systems for Tailored Solutions.

Layer 3 Feature list

- Static IPv4/Ipv6
- OSPFv2/v3, ISIS (v4/v6), MP-BGP, RIPv2
- Multi-path ECMP
- VRF Lite – IPv4
- BFD for IPv4, IPv6, Protocol support for OSPF, BGP
- in Global and VRF space
- IGMP v2/v3
- IGMP Snooping, querier, proxy report suppression
- MLD
- MSDP
- PIM-SM, PIM-SSM, PIM-DM (IPv4/IPv6)
- VRRP

MPLS/MPLS-TP Feature list*

- MPLS Architecture Support*
- LDP, RSVP support*
- RSVP Traffic Engineering support*
- RSVP FRR with 1:1 and 1:n support*
- Pseudowire setup and maintenance using LDP*
- Pseudowire setup and maintenance using BGP*
- EVPN support over VPLS*
- MPLS L3VPN for IPv4/IPv6*
- Differentiated Services over MPLS*
- BFD for Pseudowire VCCV*
- OAM for MPLS based transport networks, proactive connectivity check, RDI*
- MPLS TP, Transport Profile Support*
- MVPN Support*

Management, Security and Qos Features

- Access control list
- RADIUS & TACACS+ support
- Role based access control
- Modular QOS for Policing, Marking and Shaping
- Hierarchical QOS*
- Flexible flow classification and action rule-set
- NETCONF support*
- Ansible Integration*
- Sflow support
- DCHP Relay/Client
- Syslog
- SNMP Support
- Industry standard CLI

Ordering Information

P/N	Description
LA-SWM3-DC100G08X25G48M	Data Center Managed Switch 48 x 25G SFP28, 8 x 100G QSFP28



<https://www.lanaotek.com>



Specifications & design are subject to change without prior notice.

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