

LA-SWM3-DC400G32X10G02M

Data Center Switch 32 x 400G QSFP56-DD, 2 x 10G SFP+



Overview

LA-SWM3-DC400G32X10G02M is a high port density switch with 32 x QSFP56-DD ports in a single 1RU and single packet forwarding engine, suitable for Data centers that need unprecedented speed. With 32 QSFP56-DD 400Gpbs ports it is ideally suited for deployment at leaf/spine in data centers, where high performance is the most important, or, with 25.6Tbps (12.8Tbpsx2) total performance - as ultra-powerful appliance.

Primarily packaged to meet the requirements of deployments that require smaller form factor and access to all network ports and management ports from the front side of the product. Be used to provide 32 x 400GbE + 2 x 10GbE ports solution. In the interest of achieving the smallest possible form factor, minimum cost and the lowest system power consumption. In order to be able to fit all access, uplink and data ports on the front side of a 1U system, all data plane connectivity to it is provided through QSFP56-DD sockets. Each QSFP56-DD socket can operate as a single 400GbE port. Main Ethernet access ports are QSFP56-DD sockets which support 400GBASE-SR8, FR8, LR8, ER8 and DR4 physical layers. The total system contains a CPU subsystem with 16GB of DDR4 RAM and 64GB of M.2 SSD storage by the default setting. The CPU is connected to a set of central management processors that reside elsewhere in the system through an out of band control plane Ethernet connection.

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
- 32x400Gbps QSFP56-DD in 1U form factor
- 256x56Gbps High Speed Serdes MAC in a single PFE Packet Forwarding Engine that support 1/10/25/56 port speed modes
- 2x10Gpbe SFP+ and 1xGbaseT RJ45 Management Plane Ports

Specifications

Provided Fix Ports	32 x 400G QSFP56-DD, 2 x 10G SFP+
Management Ports	1x RJ45 100/1000Base-T out-of-band 1x RJ45 Console, 1x USB Type A
Switching Capacity	25.6Tbit/s
Forwarding Rate	19Gpps
Switch ASIC	Marvell Falcon 98CX8580
CPU	Intel Broadwell-DE D1508
Flash	64GB(SSD)
RAM	16GB
FANs	5 (4+1 AFI/AFO in and out option)
PSU	2 x 1600W hot swap AFI/AFO
VLAN	4K VLANs; 1:1 & 2:2 VLAN Mapping; QinQ, selective QinQ; MAC based VLAN; Protocols based VLAN Guest VLAN; Voice VLAN
Port Trunk	LACP; 32 trunk groups at most, up to 8 ports in each group
MAC	128K MAC; Static MAC; Dynamic MAC;
IP Routing	Static routing; OSPF; ISIS; BGP, GRE
Multicast	IGMP snooping, IGMP filter, IGMP Proxy and IGMP fast leave; Multicast replication between VLANs; PIM-SM; PIM-DM; Source Specific Multicast (SSM)
Reliability	STP, RSTP, MSTP; R-Link protection, VRRP, Trunk, Redundancy power BPDU Guard, Loop protection, Root protection;

QoS/ACL	<p>Packet filtering at Layer 2 to Layer 4, filtering out invalid frames based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type and VLAN ID</p> <p>Time range ACL</p> <p>Rate limiting with granularity at 64Kbps</p> <p>Port-based traffic policing and two-rate three-color CAR</p> <p>8 queues on each port</p> <p>Flexible scheduling algorithms, including SP/PQ, DRR, SP/PQ+DRR</p> <p>Re-marking of the 802.1p priority and DSCP priority</p>
Security	<p>User privilege management and password protection</p> <p>DoS attack defense, ARP attack defense, IP source guard</p> <p>Binding of the IP address, MAC address, interface</p> <p>Port isolation, Port security</p> <p>Black hole MAC address entries</p> <p>Limit on number of learned MAC addresses</p> <p>802.1x authentication, RADIUS authentication</p> <p>SSH v2.0</p> <p>CPU protection</p>
Data Center Feature	EVPN,VXLAN,M-Lag
Energy Saving	Dynamic fan speed adjusting
Management & Maintenance	<p>Port mirroring and Flow-based mirroring</p> <p>Configuration via CLI, Telnet, Console port</p> <p>SNMP v1/v2/v3, RMON, LLDP, Cluster network, Syslog, Traplog</p> <p>Third-Party GUI management platform based on SNMP</p> <p>Loading and upgrade via FTP/TFTP</p> <p>Port loopback detection</p>
Operating Environment	<p>Operation temperature: 0°C to 40°C</p> <p>Relative humidity: 10%-90% (non-condensing)</p>
Input Voltage	<p>AC: Rated voltage range: 100V to 240V AC, 50/60Hz</p> <p>Maximum voltage range: 90V to 264V AC, 50/60Hz</p>
Dimensions	445×540×44mm (WxDxH)
Power Consumption	≤1200w
N.W.	11KG

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
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