LA-SWM3-DC100G06X10G48M

Data Center White Box Switch PTP with Renesas

48x10G SFP+, 6x100G QSFP28



Overview

LA-SWM3-DC100G06X10G48M is a high density and low latency switch with 48x10G SFP+ and 6x100G QSFP28 ports in a single 1RU for data centers and high-end campus networks. It is high performance aggregation ToR (Top of Rack) switch for telco access, security and cloud, with advanced best- in- class, open-source network platform that line- rate L2/L3 up to 2.18Tbps (1.09Tbpsx2) switching performance of Marvell Aldrin2 is paired with multi service features.

The power supply and fan modules are hot-swappable, supporting 1+1 and 4+1 redundancy respectively. Allowing maximum flexibility, the port speeds span from 10Gbps to 100Gbps per port and port density that enables full rack connectivity to any server at any speed. Each 100G QSFP28 port can be configured 40G, 4x25GbE or 4x10GbE via breakout cables.

We support open-source Open Network Install Environment (ONIE) for zero touch installation of SONiC networking operating system or commercial OcNOS 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 10G SFP+ ports and 6 x 100G QSFP28 ports
- Each 100G QSFP28 port can be configured 40G, 4x25GbE or 4x10GbE via breakout cables
- Up to 2.18Tbps (1.09Tbpsx2) of switching performance
- Open automated configuration and zero-touch provisioning capabilities
- Simplify management of network environments
- Interface flexibility & Power efficiency

Provided Fix Ports	48 x 10G SFP+, 6 x 100G QSFP28
Management Ports	1x RJ45 100/1000Base-T Out-of-band 1x RJ45 Console 1x USB2.0
Switching Chip	Marvell Aldrin2 98DX8548
CPU	Maverll Octeon TX2 CN9130
РТР	Renesas 8A34002E
Memory	8GB DDR4
Storage	SSD: 64GB eMMC, optional M.2 STAT slot
Power Supply Units	2 x AC110~240V, 350w 1+1 Hot-swappable
Power Consumption	≤250 Watts
Fan Unit	5 (4+1 Redundant), Hot-swappable
Form Factor and Dimension	445×469×44mm (WxDxH), 1RU
Net Weight (kg)	9.7 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

Specifications

NATTO	1 Hours
MTTR	1 Hour
Switching Capacity	2.18 Tbps (1.09 Tbps x 2)
Forwarding Rate	0.6 Gpps
Jumbo Frames	Yes
Packet Buffer Size	6MB
Bridge FDB Entries	32К
Router IPv4 Host Entries	Up to 16K Unicast prefixes (LP32M)1 or Up to 3K (*,G) addresses
Router IPv6 Host Entries	Up to 8K Unicast prefixes (LPM) 3 or Up to 0.5K (*,G) addresses
Router LPM	IPv4 - up to 16K unicast prefixes IPv6 - up to 8K unicast 64-bit prefixes
TCAM Resources (Shared between TTI, IPCL and EPCL Classification Engines)	9K x 10B rules
Virtual Ports (ePorts)	8К
Bridge Domains (eVLANs)	8K
Multicast Physical Port Groups (VIDX)	4К
Multicast Virtual Port Groups (eVIDX)	16К
Multicast Linked List (MLL) Entries	16К
Tunnel-Start/ARP Table	Up to one of the following - 32K ARP entries - 8K Non-IPv6 Tunnel-Start entries - 4K IPv6 Tunnel-Start entries
Router Next Hop Entries	8К
Router ECMP Groups	8K
ePort ECMP Groups	8K
Trunk ECMP Group	4К
QoS Profiles	1K
Hardware OAM Flows	2К
Spanning Tree Groups	1K

Optional Software

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

- MAC-Based VLANs
- Voice VLAN
- Multicast TV VLAN
- Triple Play, MVR
- Q-in-Q, Selective Q-in-Q
- Multicast Bridging Mode
- Static Multicast Groups
- IGMP Snooping
- MLD Snooping
- Flooding of Unregistered Multicast Frames
- Per-device Spanning Tree
- Rapid Spanning Tree
- Multiple Spanning Tree
- STP Root Guard
- BPDU Filtering
- STP BPDU Guard
- Per-device Loopback Detection (LBD)
- LACP
- LAG Balancing
- Static and Dynamics (DHCP/BootP) IP assignment
- DNS Client
- IPv6 Host
- Dual Stack
- ISATAP Tunneling
- MAC-based Port Security (Locked Port)
- 802.1x Port-Based Authentication
- Time Based 802.1x
- Guest VLAN
- Unauthenticated VLANs
- 802.1x MAC Authentication
- Action-on-Violation
- Flow Monitoring (sFlow)
- RADIUS Remote Authorization and Authentication
- RADIUS Accounting
- TACACS+
- DHCP Snooping



Utilizing Diverse Platforms and Operating Systems for Tailored Solutions.

- IP Source Address Guard
- ARP Inspection
- DoS Attack Prevention
- SSL
- SSH
- QoS Across the Stack
- QoS statistics
- Egress Rate Limiting (Shaping)
- Ingress Rate Limiting
- Packet Storm Control
- Dynamic VLAN Assignment

Ordering Information

P/N	Description
LA-SWM3-DC100G06X10G48M	Data Center Managed Switch 48 x 10G SFP+, 6 x 100G QSFP28 PTP with Renesas



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