

# LA-SWM3-DC100G08X25G48B

Data Center Switch 48 x 25G SFP28, 8 x 100G QSFP28/40G QSFP+



## Overview

LA-SWM3-DC100G08X25G48B is 48x25G and 8x40G/100G QSFP28 advanced Top-of-Rack (TOR) or spine data center switch. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching, each QSFP28 port can be configured as 1x100G, 1x40G, or via DAC breakout cables 2x50G, 4x25G, 4x10G. The switch is designed with hot/cold aisles with port-to-power and power-to-port airflow SKUs all ports on front, with dual hot-swappable PSU and hot-swappable 4 cooling fans accessible from rear.

It is high port density, and low latency for cloud-oriented data center networks and high-end campus networks, supports an extensive range of data center features, SDN (Software Defined Networks) capabilities, stacking technologies. It is featured with VXLAN, EVPN, M-Lag, VLAN, MAC, Routing, QoS, IPv6, STP/RSTP/MSTP, which enables you to build scalable, simplified, open, and secure networks for high-performance computing clusters and high-frequency trading applications, supporting 10/25G to servers with 40/100G uplinks, or as a spine switch supporting 40/100G spine interconnects.

## High Reliability

It provides enhanced Ethernet reliability technologies such as STP/RSTP/MSTP, R-link at millisecond-level protection switchover, as well as LB (loopback check) to ensure link-level reliability. Support 1+1 redundant hot swappable power supply and an AC power supply and a DC power can be used simultaneously. Moreover, the switch supports fault detection and alarms for power modules and fan, fan speed can be automatically adjusted according to temperature variations.

### High Switching Capacity

The backplane capacity is up to 4Tbps to provide all ports with non-stop forwarding. Its high performance makes sure to build a reliable, sustainable high speed IP networks. It provides high density 10/25/40/100G fiber port. It can meet the high density, high bandwidth access and aggregation application scenarios of data center and campus network.

### Powerful Services Support

It supports IGMP snooping, IGMP proxy, IGMP filter, and IGMP fast leave for robust multicast. It offers wire-speed replication of multicast packets between VLANs, and multicast load balancing among trunk member interfaces to meet requirements for IPTV services and other multicast services.

### Superior Quality of Service

It offers Gigabit Ethernet with intelligent services that keep everything flowing smoothly with mechanisms for marking, classification, and scheduling. It supports traffic classification based on abundant criteria such as MAC/IP address, Layer 4 TCP/UDP port number, protocol, port and VLAN. Each port supports 8 priority queues with multiple queue scheduling algorithms such as SP/PQ, DRR, SP/PQ+DRR to ensure the highest-priority packets are processed ahead of all other traffic.

### Advanced Security

It offers a comprehensive security solution by providing service security in three aspects: subscriber, switch and network. Subscriber security helps create protections among customers with multiple features. DHCP Snooping, ARP Inspection, and IP Source Guard help to identify each customer based on MAC, IP address and port information to help prevent malicious attack. Switch security means CPU can be protected from DoS attack and storm. The port security feature allows controlling the number of MAC addresses against overwhelming the switch memory. Network security is to filter all incoming traffic for ensuring only valid traffic passing through by applying different ACL rules and IEEE 802.1x authentication prevents insecure terminals to intrude illegally into the entire network.

## Specifications

Provided Fix Ports	48x10/25G SFP28, 8x40/100G QSFP28
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Management Ports	1x RJ45 100/1000Base-T out-of-band 1x RJ45 Console, 1x USB Type A
Main Chip	Broadcom BCM56873
CPU	NXP LS1046A
Throughput	2000Mpps
Switching capacity	4Tbps
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	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 Time range ACL Rate limiting with granularity at 64Kbps Port-based traffic policing and two-rate three-color CAR 8 queues on each port Flexible scheduling algorithms, including SP/PQ/DRR/SP/PQ+DRR Re-marking of the 802.1p priority and DSCP priority
Security	User privilege management and password protection DoS attack defense, ARP attack defense, IP source guard Binding of the IP address, MAC address, interface Port isolation, Port security Black hole MAC address entries Limit on number of learned MAC addresses 802.1x authentication, RADIUS authentication SSH v2.0 CPU protection

Data Center Feature	EVPN, VXLAN, M-Lag
Energy Saving	Dynamic fan speed adjusting
Management & Maintenance	Port mirroring and Flow-based mirroring Configuration via CLI, Telnet, Console port SNMP v1/v2/v3, RMON, LLDP, Cluster network, Syslog, Traplog Third-Party GUI management platform based on SNMP Loading and upgrade via FTP/TFTP Port loopback detection
Operating Environment	Operation temperature: 0°C to 55°C Relative humidity: 10%-90% (non-condensing)
Input Voltage	AC: Rated voltage range: 100V to 240V AC, 50/60Hz Maximum voltage range: 90V to 264V AC, 50/60Hz DC: Rated voltage range: -48V to -60V DC Max voltage range: -36V to -72V DC
Dimensions (WxDxH)	440x400x44mm
Power Consumption	≤230W
N.W.	8.1KG

## Ordering Information

P/N	Description
LA-SWM3-DC100G08X25G48B	Data Center Managed Switch 48 x 25G SFP28, 8 x 100G QSFP28/40G QSFP+



<https://www.lanaotek.com> 

Specifications & design are subject to change without prior notice.

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