SERA
network incorporation.

DCS-T3200K

12.8T Low Latency Data Center Switch

Overview

The SERA DCS-T3200K is a high-performance spine switch designed for advanced data centers, built on the latest Marvell Teralynx7® chipset.

It delivers line-rate L2 and L3 switching across 32 x QSFP56-DD ports, each supporting 1 x 400 GbE or 1 x 100 GbE, or via breakout cables 4 x 100 GbE or 4 x 25 GbE. The DCS-3200K can be deployed as a spine switch supporting 100/400 GbE spine interconnects.

This open network switch is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System software, including the open source options, plus commercial NOS offerings.

Features

- 12.8 Tbps switching bandwidth capacity for exceptional data throughput.

- Open networking support, including OCP SAI and SONiC, enabling faster and more flexible development.

- Ultra-low, deterministic latency, reducing job completion times and easing network bottlenecks.

- High radix (up to 512) allows for cost and complexity reductions by collapsing network tiers.

- Teralynx Flashlight™ visibility and telemetry, simplifying operations and enhancing network visibility.

- Up to 14 W power budget per QSFP-DD port, ensuring robust performance.

- Open Networking & SONiC:

- Pre-loaded with the Open Network Install Environment (ONIE) for easy installation of operating systems,

- Fully disaggregated networking software and hardware, leveraging SAI (Switch Abstraction Interface).

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Specifications

Hardware	Features
Switching Ports 400G QSFP56-DD	32
Management Port (OOB)	1
Console Port (RJ45)	1
USB PORT	1
Switching Chip	Marvell Teralynx 7 IVM77700
CPU	Intel Denverton COMe Type 7 Module
Memory	32GB with ECC support
Storage	M.2 PCIe 256GB
Switching Capacity	12.8 Tbps
VLANs Support	4096
Maximum Jumbo Frame Size	9,216 bytes
Environment	
Power Supply Units	AC CRPS 1300W, Hot-Swappable, 1+1 Redundancy
Power Consumption	≤1200 Watts
Fan Unit	6 (5+1 redundant) Hot swappable
Form Factor and Dimension	445×515×44mm (WxDxH)
Net Weight (kg)	9.6 Kgs
Operating Temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 70°C
Relative Humidity	5%-95% (non-condensing)
Operating Altitude	3000m max
Predicted MTBF	350000 hours
SAFETY	
Safety	UL (CSA 22.2 No 62368-1 & UL 62368-1)
Certification	CB (IEC/EN 62368-1)
EMC	
EMC	EN 55032 Class A
Certification	AS/NZS CISPR32 EN 61000-3-2 EN 61000-3-3 FCC Class A VCCI-CISPR32 ICES-003
Layer 2	
VLAN access port creation	Dynamic LAG (LACP based load share)
VLAN Trunk port creation	Static LAG (Active-Standby and Load Share)
NDP (Neighbor Discovery Protocol)	Flow Control
Default VLAN setting on a port	Auto MDI/MDIX
port duplex setting	IPv4 / IPv6 Dual Stack
port auto-negotiation setting	RPVST (Rapid per-VLAN Spanning Tree)
port loopback mode setting	Enabling / Disabling PoE on each port
port speed setting	Dynamic LAG (LACP based load share)

Specifications are subject to change without notice.

Specifications

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Layer 3	Features
OSPFv2, v3	Black Hole route
IS-IS	L3 subinterface
BGPv4, v6	Inter vlan routing
ECMP	BFD over iBGP
Routing stack graceful restart	BFD over OSPFv2/v3
Static/Default Routing	BFD over VLAN interfaces
Data Center	
BGP-EVPN support	EVPN Multi-homing
NVGRE	MC-LAG
VRF (Virtual Routing and Forwarding)	IEEE 802.1ad QinQ
VXLAN	
Security	
Storm Control	Idle Session Timeout
L2/L3/L4 Ipv4&IPv6 ACLs	TACACS/RADIUS AAA
QoS	
QoS Packet Classifiers	Congestion Avoidance
Traffic Marking	Queue scheduling: SP, WRR, SP+WRR
Traffic Scheduling (SP, WFQ and CIR/EIR)	Class of Service
Ingress Policing / Rate Limiting	DSCP
Multicast	
PIM-SM	PIM-SSM
IGMP v2, v3	
Management	
Command Line Interface	VLAN Mirroring
SSH/Telnet	DHCP v4/v6 Relay Agent
HTTPS for XMP / REST APIs	HTTPS for XMP / REST APIs
gRPC	IEEE 802.1ab LLDP
Console Port	Jumbo MTU
Management Port	MTU setting (Automatic and Manual)
Ping (ICMP)	DHCP Auto config
L2/L3 Traceroute	ONIE Install
File Operations (upload and download)	SONiC to SONiC upgrade
DNS resolver / Client	uCental appliance support
sFlow	Inventory Information
DHCPv4/v6 Client	Environmental Information
DHCP Server	Cooling Unit Information
Port Mirroring	Active alarms

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