Seastone2™ DX030

100GbE BMC Enabled Datacenter Fabric Switch

Seastone2 DX030 is Celestica's second generation 32 port 100GbE switch in a compact 1U form factor, ideally suited for datacenter environments in either Leaf or Spine deployments.

The DX030 provides programmable data plane innovation and can support port level configuration of sub-rates between 10GbE and 50GbE. System maximums of 128 10/25GbE, or 64 50GbE, or 32 40GbE are supported with breakout cables to provide superior large radix switch for TOR or CLOS connectivity. It provides superior low latency and power efficiency in a clean PHYless design, while offering high reliability features such as redundant and hot swappable power supplies and fans in forward and reverse airflow configurations.

Seastone2 DX030 supports current and future network requirements, including a COM-E modular x86-based control plane with BMC Management Plan and Precision Timing options for easier integration of automation tools familiar to server administrators, and an ONIE installer to support 3rd party network operating systems.

FEATURES

- Interfaces: 32 QSFP28 100GbE Ports (128 available sub-rate ports), 2 SFP+ 10G, Rear CPU/BMC shared Management (RJ45) and Console (RJ45) ports, USB (Type A)
- Switching Capacity: 3.2Tbps IO Bandwidth, 32M Byte Buffer
- Latency: Less than 500ns port to port (cut-through mode)
- EEE: 802.3az
- Datacenter: DCB, TRILL, Virtual Port (VM) Switching, L2 GRE, NVGRE and VXLAN (encap/decap TEP)
- Telemetry: Improved Instrumentation with Transient Capture Buffer, Packet Timestamp and Buffer Statistics
- CPU: Intel Atom C 1.6Ghz Dual-core (up to 8-core), 4-32GB ECC DDR4, 16GB up to 1TB M.2 SSD
- Routing Tables: Unified Forwarding Tables: up to 354K MPLS labels, 350K LPM, 128K ACL
- Content Aware Processing: Layer 2-7 packet classification, FCoE
- Transceivers: QSFP28 upto 4.5W power, SR to 300m, LR to 10km, DAC (to 5m passive)

IEEE1588 & SYNCE TIMING OPTION

- Supports IEEE1588 1-step and 2-step time stamping
- Supports TC and BC mode
- Supports SyncE recovery

Enterprise-Class Quality. Cloud Economics.

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BMC SYSTEM MANAGEMENT OPTION

- DDR3 1Gb~4Gb/SPI 8Mb~64Mb Flash for dual boot
- NC-SI shared management port
- Serial over LAN (SOL) enabled
- Supports remote (BIOS/firmware) online upgrading
- IPMI 2.0

LAYER TWO HARDWARE SUPPORTED

- 802.3ad LACP
- 802.1D STP, 802.1w RSTP, 802.1s MSTP, TRILL
- 802.1Q VLAN 4096, SVLAN, PVLAN
- 802.1 Q-in-Q double-tagged VLAN
- 802.1P L2 Prioritization
- 802.1AB LLDP
- 802.1x Network Access Control
- IGMP/MLD Snooping
- PBB/PBB-TE
- VM Switching/VEPA/VN-Tag/802.1Qbh
- Mirroring
- Storm Control

LAYER THREE HARDWARE SUPPORTED

- Hardware-based IP Forward
- IPv4/v6 Routing Protocols: OSPF, RIP, IS-IS, BGP
- VRF, ECMP/WCMP, VRRP
- VPWS, VPLS, L3 VPN
- Hardware Based Tunneling: IPv4/v6, GRE, MiM
- IGMPv1/v2/v3
- IP Multicast: PIM-SM, PIM-DM, PIM-SSM
- Hierarchical ECMP
- Enhanced IPF width and keys for SDN

TRAFFIC MANAGEMENT HARDWARE SUPPORTED

- Flexible QoS Queuing for UC Packets
- Separate QoS Queues for UC and MC Packets (10 each/port)
- 2-Rate, 3-Color Policing
- SP, WRR, WDRR Queuing
- DCBX (ETS, PFC, CN/QCN)
- Per-Port DSCP
- Per-Port Oversubscription

POWER AND COOLING

- Under 800W peak consumption with maximum optics, 1+1 redundant, hot swap PSUs
- 100-240VAC auto-ranging, 47-63Hz or 180-300VDC auto input
- 3+1 redundant fans, front to back and back to front system cooling

PHYSICAL DIMENSIONS

- Height: 43.8 mm (1.73") 1 EIA unit
- Width: 442 mm (17.3")
- Depth: 521 mm (20.5")

ENVIRONMENTAL: OPERATING

- Temperature: 0°C to 45°C
- Humidity: 5% to 90% non-condensing

APPROVALS

- EMC: CN(GB9254-2008), EU(EN55022, EN55024), FCC, VCCI, CCC
- Safety: IEC60950-1, GB4943, UL/CSA, CB, CCC

ORDER INFORMATION

DX030-2C4G16-F2B - 2Core DTN CPU 4GB RAM/ 16GB SSD, BMC, Front to Back, AC/HVDC

Note: All specifications and figures are subject to change without prior notice.

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