DS6001

2OU 64-port 1.6TbE Data Center Switch

Celestica's 1.6TbE Networking Switches are purpose-built to support AI backend networks for scale up and scale out networking. DS6001 simplifies AI fabric design, providing an efficient transport for AI traffic, and meets the scaling needs for the modern AI data center.

DS6001 is a hybrid-cooled, 64-port 1.6TbE switch in a 2OU ORv3 form factor that provides 102.4Tbps bandwidth, transforming AI connectivity for the future with unprecedented speed and agility.

The DS6001 is ideal for:

- AI / ML Back-End Networks
- High Band-Width, Scale up and Scale out Networks
- AI Training and Inferencing Networks
- Frontier Cloud and Enterprise Domain AI Models

FEATURES

- Interfaces: 64 ports 1.6TbE (OSFP224) 50GbE / 100GbE / 200GbE / 400GbE / 800GbE capable with breakouts, 2 ports 50GbE (SFP56) management ports, RJ45 console and OOB GbE management ports, 1xUSB 3.0 Type A and 1xUSB-C console, 1xPPS, 1x10Mhz, and 1xTOD timing interfaces
- Switching Capability: 102.4Tbps IO Bandwidth
- Switch Silicon: Broadcom Tomahawk® 6 CPU: Intel® Intel Xeon-D x86 CPU, 4C / 8C / 10C
- Memory: Up to 64GB DDR4, 512GB M.2 SSD

SOFTWARE

- SONiC support
- Open Network Install Environment (ONIE) for compatible open source and commercial NOS offerings

TIMING OPTION

- IEEE1588 1-step and 2-step time stamping
- Transparent and boundary clock mode SyncE clock recovery
- External timing interfaces-1xPPS, 1x10Mhz, 1xTOD

BMC SYSTEM MANAGEMENT OPTION

- RunBMC support
- 2GB DDR4
- Dual 128MB Flash for dual boot
- Serial over LAN (SOL) enabled
- Supports remote (BIOS / firmware) online upgrading
- Open BMC

Enterprise-Class Quality. Cloud Economics.

POWER AND COOLING

- 48VDC Bus bar input
- Hybrid cooling technology

PHYSICAL DIMENSIONS

- Height: 94 mm (3.7")
- Width: 537 mm (21.1.")
- Depth: 805 mm (31.7")
- Weight: 30Kg

ENVIRONMENTAL: OPERATING

- Temperature: 0°C to 40°C
- Humidity: 5% to 95% non-condensing
- Liquid cool: 35°C liquid inlet with data center facility water
- MTBF: Excess of 150,000 hours

REGULATORY

Emissions

- Australia/New Zealand: AS/NES CISPR32:2015+A1:2020 Class A
- Canada: ICES-003 Issue 7:2020 Class A
- Europe: EN55032:2015/AC:2016 Class A
- Japan: VCCI-CISPR 32:2016 Class A
- India: TEC/SD/DD/EMC-221/05/OCT-16 Class A
- USA: FCC CFR 47 Part 15, Subpart B, Class A
- EN/IEC61000-3-2 Harmonic current emission
- EN/IEC61000-3-3 Voltage fluctuations and flicker

Immunity

- EN 300 386 V1.6.1
- EN 300 386 V2.2.1 EMC for Network Equipment
- EN 55035:2017/AC:2019
- EN 61000-4-2 ElectroStatic Discharge (ESD)
- EN 61000-4-3 Radiated Immunity
- EN 61000-4-4 Electromagnetic Fast Transients (EFT)/Burst
- EN 61000-4-5 Surge
- EN 61000-4-6 Conducted Immunity
- EN 61000-4-8 Power frequency magnetic field
- EN 61000-4-11 Voltage dips and interruptions

Safety

- IEC 62368-1:2014 (All country deviations): 2nd Edition: CB Scheme
- IEC 62368-1:2018 (All country deviations): 3rd Edition: CB Scheme
- IEC 62368-1 2023 (All country deviations): 4rd edition: CB Scheme
- EN 62368-1:2014+A11:2017, EN IEC 62368-1:2020+A11:2020, EN IEC 62368-1:2024/A11:2024 (4th Edition)
- UL 62368-1:2025 (4th Edition)
- CSA C22.2 No. 62368-1:2025(4th Edition)

Green

- Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)
- European Union RoHS directive 2011/65/EU and 2015/863/EU
- European Union REACH Regulation (EC) No 1907/2006
- China RoHS

OPTICS / Cables

- Up to 32W / 40W transceivers, up to 1M DAC

ORDER INFORMATION

R4116-F9002-A1: DS6001, 2OU, 64x1.6TbE, COMe 8C/32G DDR4/256G SSD

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