

# DS1000

1U 48-port 1GbE Data Center Switch



OCP  
ACCEPTED™



An Open Compute Project (OCP) accepted design, the DS1000 Ethernet switch offers 48 x 10/100/1000Mbps RJ45 ports and 8 SFP+ ports within a 1U form factor. With support for a COM-E modular atom-based control plane, the DS1000 includes an ONIE installer to support third-party network operating systems.

**The DS1000 is ideal for:**

- 1GbE Data Center Top of Rack
- Management Switch Use Cases
- Open and Third-Party Network Operating Systems

## FEATURES

Interfaces: 48 x 10/100/1000Base-T RJ45 Copper ports, 8 x SFP+ 10Gigabit fiber ports, 1 x Console Port base on RJ45, 1 x Out of band management port base on 10/100/1000Mbps RJ45, 2 x Type A USB 2.0 ports

Switching Capacity: 128Gbps; Packet Buffer of 4MB

CPU: Intel Denverton 4-Core; 4GB ECC DDR4, configurable to 32GB; 64Gb iSLC M.2 configurable SSD

SFP+ DAC Support: 7m

SFP+ Optical Module Support: Up to 2W power

## LAYER TWO HARDWARE SUPPORTED

VLAN Learning, Shared VLAN switching, VLAN double tagging

HW based address learning, MAC address aging (except static MAC address)

Class based learning

IEEE 802.3 packet sizes (64 bytes to 1522 bytes), Jumbo packet up to 12,288 bytes

Multicast

Spanning tree

Storm Control

IEEE 802.3ad LAG

Ingress/Egress mirroring

DSCP



Enterprise-Class Quality. Cloud Economics.

**LAYER THREE HARDWARE SUPPORTED**

IPv4, IPv6

VRF

IP Multicast

IPv6 Tunneling

GRE Tunneling

Server Virtualization/VN-Tag/VEPA/IEEE 802.1Qbh

VxLAN

RIOT

Tunnel Encap/Decap

Resilient Hashing

Pre-Classification Content Aware Processor (VFP)

Content Aware Processing (IFP/EFPP)

Port Security (IEEE 802.1x)

BroadShield™ DoS Attack Prevention

QoS

Priority Flow Control (PFC) IEEE 802.1bb

Flexible Counters

Network Time Sync

MIB – RFC 2613, 2819, 1213, 2836, 1643, 1493;  
IEEE 802.3u

CMICx

Ethernet OAM

Flow Control

Bridge Port Extender IEEE 802.1Qbg, 802.1BR

Energy Efficient Ethernet (EEE)

**POWER AND COOLING**

Under 200W peak consumption,  
1+1 redundant hot swap PSUs

90-264VAC 47Hz/63Hz AC/DC PSU

2+1 Fixed 40 mm x 40 mm x 28 mm fans

**PHYSICAL DIMENSIONS**

Height: 43.6 mm (1U)

Width: 438.5 mm

Depth: 370 mm

**ENVIRONMENTAL: OPERATING**

Temperature: 0°C to 45°C @ 3000ft/900 m

Humidity: 5% to 90%, non-condensing

MTBF: Excess of 150,000 hours

**APPROVALS**

Acoustic: EN300753

Waste Electrical and Electronic Equipment (WEEE):  
Directive 2012/19/E

European Union ROHS directive: 2011/65/EU&  
2015/863

SVHC requirements of REACH directive:  
(EC) No. 1907/2006

EMC: Class A - USA, Canada, Europe, China,  
Japan, Korea, Australia, Brazil, South Africa

Safety: UL/CSA/IEC/EN 60950-1/62368-1

PSU: CE, CCC, KC, TUV, UL/cUL, BIS and BSMI

**ORDER INFORMATION**

**R3059-F9022-A1:** DS1000, 1U, 48x 1GbE + 8x  
10GbE, COMe 4C/8GB-DDR/32GB-SSD (B2F)

**R3059-F9021-A1:** DS1000, 1U, 48x 1GbE + 8x  
10GbE, COMe 4C/8GB-DDR/32GB-SSD (F2B)

**FRU**

**R3059-F8001-01:** AC PSU FRU, DS1000 F2B

**R3059-F8002-01:** AC PSU FRU, DS1000 B2F

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

