

# ES1050

## 1U 48-port 1GbE / 2.5GbE (PoE) Access Switch



ES1050 includes high-reliability features such as redundant fixed fans and hot swappable power supplies. The platform is available in both forward and reverse airflow configurations with optional 90W per port PoE++ support.

### The ES1050 is ideal for:

- Enterprise Edge / Access / Campus Aggregation
- SD-Branch / SD-WAN / SASE
- IoT
- DCN Management Switches

The Celestica ES1050 provides 48 ports with 32x 1000Base-T, 16x 2500Base-T and 4x 25GbE SFP28 ports in support of enterprise access and edge applications.

### FEATURES

Broadcom TD3.X2 switch chipset

172Gbps non-blocking switching capacity

Intel Denverton x86 CPU, 4C / 8C at 2.1GHz / 2.2GHz

Memory: DDR4 16GB up to 32GB, and 16GB up to 256GB M.2 SSD

Encryption: 256b MACsec

Optional: IEEE 1588 and SyncE timing support

32 ports 1000Base-T (RJ45)

16 ports 1000Base-T / 2500Base-T (RJ45)

Optional: IEEE 802.3 af / at / bt, Type 4, Class 8 enabled RJ45 ports

Persistent POE

4 ports 1GbE / 10GbE / 25GbE (SFP28)

RJ45 console and Combo / SFP OOB Ethernet management ports

2x USB 3.0 Type A interfaces

1+1 hot swappable AC PSUs with 0:1 / 1:1 mode of operations

3+1 fixed fans

ROHS Compliant



**Enterprise-Class Quality. Cloud Economics.**

**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

**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 / EFP)

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)

**PHYSICAL DIMENSIONS**

Height: 43.4 mm (1U)

Width: 438.2 mm

Depth: 371.6 mm

**ENVIRONMENTAL : OPERATING**

Temperature: 0°C to 45°C @ 900m

Humidity: 5%~85% (Upper limits per ASHRAE A3)

Altitude: 3050m maximum. Derate ambient 1C / 175m above 900m

**APPROVALS**

EMC: Class B- USA, Canada, Europe, Japan, China

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

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

**ORDER INFORMATION**

**R4048-F90L2-A1:** ES1050-48C, 1U, 32x1GbE +16x2.5GbE, COMe 4C/16GB-DDR/64GB-SSD (F2B)

**R4048-F91L2-A1:** ES1050-48C, 1U, 32x1GbE +16x2.5GbE, COMe 4C/16GB-DDR/64GB-SSD (B2F)

**R4048-F90L3-A1:** ES1050-48CP, 1U, 32x1GbE +16x2.5GbE, POE++, COMe 4C/16GB-DDR/64GB-SSD (F2B)

**R4048-F91L3-A1:** ES1050-48CP, 1U, 32x1GbE +16x2.5GbE, POE++, COMe 4C/16GB-DDR/64GB-SSD (B2F)

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