

INTELLIPOINT DATA SHEET

40G 32-Port Open Networking Switch



Champion ONE open networking switch solutions pair high-performance, reliable hardware with feature-rich network operating system (NOS) software to provide greater flexibility and control at lower costs than traditional closed layer 2 and layer 3 Ethernet switches.

Product Overview

Bolster your network with Champion ONE's carrier-grade 40G Ethernet switches, ideal for high-performance data center applications. In a compact 1RU form factor, the switches provide line-rate L2 and L3 switching across 32 x QSFP+ ports, supporting 32 x 40 GbE connections or 104 x 10 GbE (+6 x 40GbE) connections to 96 x 10 GbE + 8 x 40G connections. These switches can be deployed as a TOR switch supporting 10 GbE or 40 GbE server connections, or as a spine switch supporting 10 GbE or 40 GbE spine interconnects.

Champion ONE's 40G switch comes loaded with Open Network Install Environment (ONIE) software installer, which supports several leading network operating systems. For more information, please refer to the "Software Compatibility" table on page 3.

Technical Specifications

PORT CONFIGURATION (FRONT OF SWITCH)

(32) 40 GbE/4x10 GbE QSFP+ ports
Management ports on port side:
(1) RJ-45 serial console
(1) RJ-45 100/1000BASE-T management
(1) USB type A storage port

POWER SUPPLIES AND FAN TRAY (REAR)

Redundant, load-sharing power supplies, AC or -48VDC
AC: 90 to 264 VAC at 50-60Hz, max 10.0A at 100/120 VAC
Up to 93% PSU efficiency
DC: -48 to -72 VDC, 10.0A at -72 VDC
Hot-swappable fan tray with 4+1 redundant fans

WARRANTY

All feature a limited 3-year warranty

DIMENSIONS

Standard 19" Rack (WxDxH):
43.8cm x 47.3cm x 4.34cm);
9.65kg

LEDS

40G QSFP+ Ports: Link Status, Activity
Ethernet Mgmt Ports: Link Status, Activity
Console Port: Link Status
System: Diagnostic, Locator

REGULATORY

EMI
CE Mark (EN55022 Class A)
FCC Part 15 Class A
VCCI
CB, EN 60950
UL/CUL
Temperature: IEC 68-2-14
Drop: ISTA 2A
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
RoHS-6 Compliant
TAA Compliant

Key Features Summary

- Cost-effective, bare-metal switch infrastructure for data center fabric.
- 32 fixed 40GbE QSFP+ switch ports in compact 1RU form factor, each supporting 40 GbE or 4 x 10 GbE via breakout cables. Maximum 24 x 40GbE QSFP+ switch ports support breakout cables.
- Layer 2 or Layer 3 forwarding of 1.28 Tbps full duplex.
- Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.
- All ports on front. PSUs and fans inserted from rear.
- Hot swappable, load-sharing redundant AC PSUs.
- 4+1 redundant, hot-swappable fans modules.
- Energy Efficiency: 310 W typical power consumption under line rate traffic using 24 x passive QSFP DAC, 8x40GBASE-SR4.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.
- Compatible with several leading network operating systems (see “Software Compatibility” on the following page)

Performance Specifications

C1 Part Number	Switching Capacity (Tbps)	Forwarding Rate (Bpps)	VLAN IDs	MAC Address Table Size	Jumbo Frames (bytes)	L3 Routes (min/max)	Packet Buffer Size (MB)	Power Consumption (W)	Operating (Storage) Temp. (°C)	Operating and Storage Humidity (%)
C1-40G-32-S-BT2P-AF	2.56 (full duplex)	1.9	4 K	Min: 32K Max: 288K	9216	IPv4: 16K / 112K host entries ¹ IPv6: 8K / 56K host entries ²	16.0 (integrated packet buffer)	370	0 to 40 (-40 to 70)	5 to 95

1. 16K LPM entries with TCAM-only mode.
2. IPv6/64 = 8K with TCAM-only mode.

Silicon and Memory

	C1-40G-32-S-BT2P-AF
Switch Silicon	Broadcom BCM56860 Trident II+ 720Gbps
CPU Module	Intel Atom C2538 quad-core 2.4GHz x86 processor
Memory	8 GB SO-DIMM DDR3 RAM w/ ECC 16 MB SPI 8 GB NAND flash

Software Compatibility



Contact Champion ONE for specific version compatibility.

Supported Optics

Champion ONE's 40G switch supports the following standards for transceivers, which include Champion ONE's own Passport™ line of universal transceivers, shown below:

QSFP+ Transceivers		
Standard	Max. Rated Distances	Passport Part #
40GBASE-CR DAC	0.5m to 5m (passive and active)	40GQSFP+E-DA01 40GQSFP+E-DA03 40GQSFP+E-DA05
40GBASE-CR / 4x10GBASE-CR DAC	0.5m to 5m	40GQ-4X10S-BO01 40GQ-4X10S-BO03 40GQ-4X10S-BO05
40GBASE-SR4	100m (OM3 MMF) 150 (OM4 MMF)	40GQSFP+E-SR4
40GBASE-LR4	10km	40GQSFP+E-LR4

Additional Options

PART NUMBER SCHEME:

C1-40G-32-S-BT2P-**YZ**

Y	Power Option
A	AC Power
48D	DC Power (48 VDC)

Z	Airflow Option
F	Port-to-Power Airflow
B	Power-to-Port Airflow