INTELLIPORT 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 32xQSFP+ ports, supporting 32x40 GbE connections, 104x10 GbE and 6x40GbE connections, or 96x10 GbE and 8x40G 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 "Software Compatibility" on page 2.

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

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

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

ENVIRONMENTAL
Operating Temp. Range: 0 to 40° C
Storage Temp. Range: -40 to 70° C
Humidity Range: 5% to 95%

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 4x10 GbE via breakout cables. Maximum 24x40GbE 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 redudundant 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 commerical NOS offerings.

· For compatible software options and versions, please refer to "Software Compatibility" below.

Performance Specifications

C1 Part Number[1]	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)
C1-40G-32-S-BT2P-yz	2.56 (full duplex)	1.9	4 K	Min: 32K Max: 288K	9216	IPv4: 16K / 112K host entries[2] IPv6: 8K / 56K host entries[3]	16.0 (integrated packet buffer)	370

1. Refer to Ordering Information on Page 3 for details.
2. 16K LPM entries with TCAM-only mode.
2. IPv6/64 = 8K with TCAM-only mode.

Silicon and Memory

Parameter	Value
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 Compatibilty

Contact Champion ONE for specific version compatibility.

Supported Optics

Champion ONE's 40G switches support the following standards for transceivers, which include Champion ONE's own Passport™ line of universal transceivers. For more technical information on Champion ONE transceivers, please visit: https://www.championone.com/resources/data-sheets/transceivers/passport.

QSFP+ Transceivers		
Standard	Max. Rated Distances	Passport Part #
40GBASE-CR4 DAC	0.5 to 7m	CAB-QSFP-40G-DACP-xM-C1
40GBASE-CR4 / 4x10GBASE-CU DAC	0.5 to 5m	CAB-QSFP-4SFP10G-DACP-xM-C1
40GBASE-SR4	100m (OM3 MMF) 150 (OM4 MMF)	40GQSFP+E-SR4
40GBASE-LR4	10km	40GQSFP+E-LR4

Ordering Information

PART NUMBER SCHEMA:

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

Y	Power Option
A	AC Power
48D	48VDC Power

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