

INTELLIPOINT DATA SHEET

100G 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 100G open switches. These are Top-of-Rack or spine switches for data center applications in a compact 1RU form factor. They provide line-rate layer 2 or layer 3 (L2/L3) switching across 32xQSFP28 ports, supporting up to 32x40/100GbE, 64x50GbE, or 128x10/25 GbE connections. These switches can be deployed as TOR switches supporting 10/25/50 GbE to servers with 40/50/100 GbE uplinks, or as spine switches supporting 40/45/100 GbE spine interconnects.

All 100G switches from Champion ONE come loaded with Open Network Install Environment (ONIE), and support several leading network operating systems (NOS). Please refer to "Software Compatibility" on page 2 for more details.

Technical Specifications

PORT CONFIGURATION (FRONT OF SWITCH)

(32) QSFP28 ports
(supports 1x40/100 GbE; 2x50 GbE or 4x10/25 GbE/port using splitter cables)
Management ports on front panel:
(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 51.5cm x 4.35cm);
10kg

POWER SUPPLIES AND FAN TRAY (REAR)

Redundant, load-sharing power supplies, AC or -48 VDC
AC input voltage : 90 – 240 VAC at 50-60Hz
Up to 93% PSU efficiency
DC: -48 to -72 VDC
12VDC power input option
Hot-swappable fan tray with 5+1 redundant fans

WARRANTY

All feature a limited 3-year warranty

ENVIRONMENTAL

Operating temperature: 0 to 45°C
Storage temperature: -40 to 70°C
Operating humidity: 5% to 95%

LEDS

QSFP28 Port LEDs: Link Status, Activity, Rate
Ethernet Mgmt Port LED: Link Status, Activity
Console Port LED: Link Status
System LEDs: Diagnostic, Locator, PSU and Fan Status

REGULATORY

EMI
CE Mark
EN55022 Class A
EN55024
EN61000-3-2
EN61000-3-3
FCC Part 15 Subpart B Class A
VCCI Class A
Safety
CB
UL/CUL
Environmental:
Temperature: IEC 68-2-14
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: ISTA 2A
Acoustic Level: 62dB@ 27°C
RoHS-6 Compliant
TAA Compliant

Key Features Summary

- Cost-effective, bare-metal switch infrastructure for data center fabric.
- Deployable as TOR switch supporting 10 or 25 GbE to servers, with 40 or 50x100GbE uplinks, or as spine switch supporting 40, 50, or 100 GbE ToR and spine interconnects.
- 32xQSFP28 switch ports, each supporting either 1x100GbE or 1x40GbE, or (via breakout cables) 2x50GbE, 4x25GbE, or 4x10GbE.
- Full line-rate Layer 2 or Layer 3 forwarding of up to 6.4 Tbps (full duplex).
- Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.
- All ports on front; PSUs, fan tray on rear.
- Hot-swappable, load-sharing, redundant AC PSUs or -48VDC PSUs; or 12VDC power input.
- Redundant, hot-swappable fan tray with 5+1 fans.
- 550W maximum power consumption without pluggable optics
- Hardware switch pre-loaded with diagnostics software and Open Network Install Environment (ONIE) for automated loading of compatible independent switch OS software.

Performance Specifications

C1 Part Number ¹	Switching Capacity (Tbps)	Forwarding Rate (Bpps)	MAC Addresses (min/max) ¹	VLAN IDs	Jumbo Frames Support (bytes)	Packet Buffer Size (MB)	IPv4 ²	IPv6 ²
C1-100G-32-S-BTM-yz	6.4	4.7	8 K / 136 K	4 K	9216	16.0 (integrated packet buffer)	8k min/72k max host entries; 16k LPM entries (TCAM-only mode)	4k min/36k max host entries; IPv6/64 = 8k (TCAM-only mode)

1. Refer to Ordering Information on Page 3 for details.
 2. Subject to NOS restrictions.

Silicon and Memory

Parameter	Value
Switch Silicon	Broadcom BCM56960 Tomahawk
CPU Module	Intel Atom C2538 quad-core 2.4 GHz x86 processor
Memory	16 GB SO-DIMM DDR4 RAM 16 MB SPI flash 64 GB m.SATA MLC

Software Compatibility



Contact Champion ONE for specific version compatibility.

Supported Optics

Champion ONE's 100G 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>.

QSFP28 Transceivers		
Standard	Max. Rated Distances	Passport Part #
100GBASE-SR4	70m (OM3) 100m (OM4)	100GQSFP28E-SR4
100GBASE-PSM IR4	2km	100GQSFP28E-PSMIR4
100GBASE-CWDM4	2km (w/FEC)	100GQSFP28E-CW4
100GBASE-LR4	10km	100GQSFP28E-LR4
100G QSFP28 AOC	Up to 30m	CAB-QSFP28-QSFP28-AOC-xM-C1

Ordering Information

PART NUMBER SCHEMA:

C1-100G-32-S-BTM-**YZ**

Y	Power Option
A	AC Power
48D	48VDC Power

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