



# 100G 32-PORT OPEN NETWORK SWITCH

## C1-100G-32-S-BTM-AF

### PRODUCT OVERVIEW

Raise your network's IQ with Champion ONE's Intelliport™ optical networking products. From electric-to-optical media conversion and optical media extenders, to Smart Transceivers that allow you to actively monitor data transmission, to Ethernet switches supporting up to 100G, Intelliport covers everything you need to make your network bigger, stronger, and smarter.

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 32 QSFP28 ports, supporting up to 32 40/100GbE, 64 50GbE, or 128 10/25 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 the table on page 2 for specifics on compatibility.

## 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 50 100GbE uplinks, or as spine switch supporting 40, 50, or 100 GbE ToR and spine interconnects.
- ◇ 32 x QSFP28 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.

## TECHNICAL OVERVIEW

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 47.3cm x 4.34cm); 10kg

## ENVIRONMENTAL

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

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, 10.0A at -72 VDC  
12VDC power input option

Hot-swappable fan tray with 5+1 redundant fans

## WARRANTY

All feature a limited 3-year warranty

## SILICON AND MEMORY

	C1-100G-32-S-BTM-AF
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 NOR flash 32 GB m.SATA SSD MLC

## SOFTWARE COMPATIBILITY

	C1-100G-32-S-BTM-AF
Cumulus Networks	Cumulus Linux v3.1 and later
Pica8	PicOS v2.7.1 and later
Big Switch	Big Monitoring Fabric v5.6.0 and later
IP Infusion	OcNOS v1.2 and later

## PERFORMANCE SPECIFICATIONS

C1 PN	Switching Capacity (Tbps)	Forwarding Rate (Bpps)	MAC Addresses (min/max) <sup>1</sup>	VLAN IDs	Jumbo Frames Support (bytes)	Packet Buffer Size (MB)	IPv4 <sup>1</sup>	IPv6 <sup>1</sup>
C1-100G-32-S-BTM-AF	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. Subject to limitations of the network operating system.

## SUPPORTED OPTICS

Champion ONE's 100G switches supports the following standards for transceivers, which include Champion ONE's own Passport™ line of universal transceivers.

Standard	Rated Distance	C1 Passport Part Number
100GBase-SR4	70m w/ FEC (OM3) 100m w/ FEC (OM4)	100QSFP28E-SR4
100GBase-PSM IR4	2km	100QSFP28E-PSMIR4
100GBase-CWDM4	2km (w/ FEC)	100QSFP28E-CW4
100GBase-LR4	10km	100QSFP28E-LR4
		100QSFP28E-LR4S

\*For more information on compatible Champion ONE Passport™ transceivers (including full data sheets), visit [www.championone.com](http://www.championone.com), or contact your Champion ONE sales representative.

## ADDITIONAL OPTIONS

PART NUMBER SCHEME: **C1-100G-32-S-BTM-YZ**

Y	Power Option
A	AC Power
D	DC Power (12V or 48V)

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

## SERVICE AND SUPPORT

Running a network or selling network services and products can be a highly competitive endeavor. To help differentiate your business and enable you to provide more cost effective infrastructure, you require a partner that provides competitive pricing and vertical market expertise. At Champion ONE we understand your needs. We leverage our skills and relationships to:

- Provide network design services and help you explore alternative network designs
- Provide technical and sales support when you need it
- Accept orders for same day shipment up to 3:00 PM EST
- Offer one of the longest warranties in the industry on all products
- Offer a 30-day return policy
- Build a long-term supplier partnership with you

You can rely on Champion ONE, not only for the highest levels of availability for the products you need, but the technical support, customer service and cost consideration you deserve. Our goal is your complete satisfaction.

## THE CHAMPION ONE COMMITMENT



For over twenty years, we at Champion ONE have been delivering great value to our customers through high-quality products at competitive prices. As one of the leading suppliers of compatible optical transceivers and a major supplier of optical networking solutions, we take great pride in building long-term relationships as a trusted partner. In this spirit, everything we bring to market bears the Champion ONE Shield™, which strengthens this trust through five core promises: Performance, Availability, Compatibility, Protection, and Value.

## GLOBAL HEADQUARTERS

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