



10G 48+6-PORT OPEN NETWORK SWITCH

WITH 100G UPLINK PORTS

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 a carrier-grade 10G open network switch from Champion ONE. This high-density solution provides full line-rate switching at Layer 2 or Layer 3 across 48 10GbE ports and 6 100GbE uplinks. These switches meet the high performance, availability, and network-scaling requirements of data centers, and can be deployed either as a Top-of-Rack switch or as part of a 40GbE or 100GbE distributed spine, forming a non-blocking folded CLOS data center fabric. The switch is mountable in either a standard 19" rack, or a 21" Open Rack via an Open Rack Switch Adapter.

This 10G switch is built on a Broadcom Qumran silicon chip. They come loaded with the Open Network Install Environment (ONIE) software installer, and can be bundled with industry-leading software including IP Infusion®. For more information, please refer to the "Software Compatibility" table on page 3.

KEY FEATURES SUMMARY

- ◇ Cost-effective, bare-metal switch infrastructure for data center and carrier access.
- ◇ 48 x SFP+ switch ports, supporting 10 GbE (DAC, AOC, 10GBASE-SR/LR) or 1 GbE (1000BASE-T/SX/LX).
- ◇ 6 x 100 QSFP28 switch ports, supporting 100GbE.
- ◇ Expandable packet buffering for carrier access.
- ◇ MPLS support for carrier access
- ◇ Layer 2 or Layer 3 forwarding of 800 Gbps
- ◇ Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.
- ◇ All ports on front; PSUs, swappable 4+1 fan tray on rear.
- ◇ Hot-swappable, load-sharing, redundant AC PSUs or -48VDC PSUs; or 12VDC power input.
- ◇ Management: Ethernet and console RJ-45 ports; USB storage port.
- ◇ Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible independent SwitchOS software
- ◇ For compatible software options and versions, please refer to the “Software Compatibility” table on page 3.

TECHNICAL OVERVIEW

PORT CONFIGURATION (FRONT OF SWITCH)

- (48)** 1/10GbE SFP+ ports
- (6)** 100GbE QSFP28 ports
- Management ports on front panel:*
- (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 DC
- AC: 90 to 300 VAC
- Up to 93% PSU efficiency
- DC: -36 to -72 VDC
- Hot-swappable fan tray with 5+1 redundant fans

ENVIRONMENTAL

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

DIMENSIONS

- Standard 19" Rack (WxDxH: 44cm x 54.8cm x 4.4cm); 9.3kg

WARRANTY

- All feature a limited 3-year warranty

SILICON AND MEMORY

Switch Silicon	Broadcom BCM88370 Qumran MX
CPU Module	Intel Rangeley C2538 quad-core 2.4GHz x86 processor
Memory	8 GB SO-DIMM DDR3 RAM x2 mSATA: 32 GB

PERFORMANCE SPECIFICATIONS

C1 PN ¹	Switching Capacity (Gbps)	Forwarding Rate (Bpps)	Packet Buffer Size	Jumbo Frames (bytes)	VLAN IDs ¹	MAC Address Table Size ¹	L3 Routes ¹
C1-10G-48+6-S-BQM-AF	800	1.0	Expandable to 6 GB	9216	4 K	750 K	750 K (expandable to 8 million)

1. Subject to NOS restrictions.

SOFTWARE COMPATIBILITY

IP Infusion

10G Open Network Switch

OcNOS

SUPPORTED OPTICS

Champion ONE's 10G switch supports the following standards for transceivers, which include Champion ONE's own Passport™ line of universal transceivers.

SFP+ Transceivers		
Standard	Max. Rated Distances	Passport Part #*
10GBASE-CU DAC	0.5m to 7m (passive and active)	10GSFP+E-DA01 10GSFP+E-DA03 10GSFP+E-DA05 10GSFP+E-DA07
10GBASE-SR/SRL	100m or 300m (OM3 MMF)	10GSFP+E-SR
10GBASE-LR	10km	10GSFP+E-LR 10GSFP+E27B10L (bi-di) 10GSFP+E3310L (bi-di)
1000BASE-SX	55m	1000SFP055
1000BASE-LX	10km	1000SFP10
1000BASE-T	100m	1000SFPT

QSFP+ Transceivers		
Standard	Max. Rated Distances	Passport Part #*
40GBASE-CR4 DAC	Up to 7m	40GQSFP+E-DA0x (x=1, 3, 5, 7)
40GBASE-CR4 / 4x10GBASE-CU DAC	0.5m to 7m	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
100GBASE-SR4	70m (OM3) 100m (OM4)	100GQSFP28E-SR4
100GBASE-LR4	10km	100GQSFP28E-LR4
100G QSFP28 AOC	Up to 30m	100GQSFP28-AOxx (xx = 01, 03, 05, 10, 15, 20, 30)

*For more information on compatible Champion ONE Passport™ transceivers (including full data sheets), visit www.championone.com.

ORDERING INFORMATION

PART NUMBER SCHEME: **C1-10G-48+6-S-BT2P-YZ**

Y	Power Option
A	AC Power
12VDC-	12VDC Power
48VDC-	48VDC Power
72VDC-	72VDC Power

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.

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