C1 CHAMPION O·N·E™

INTELLIPORT™

10G Copper (RJ-45) 48+6-Port Open Network Switch

C1-10G-48+6-R-BT2P-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 10G Copper (RJ-45) Switch. These high-density solutions provide full line-rate switching at Layer 2 or Layer 3 across 48 10GbE ports and 6 40GbE uplinks. All of this comes in a compact 1RU enclosure with redundant, hot-swappable AC power supplies and supports hot/cold aisle configurations with port-to-power or power-to-port airflow options. These switches support VXLAN and NVGRE tunneling functions in hardware, while using already-deployed Cat 5e/6/6A/7 cabling infrastructure that reduces future investment.

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 10GbE or 40GbE distributed spine, forming a non-blocking folded CLOS data center fabric.

These 10G switches are built on a Broadcom Trident II+ silicon chip. They come loaded with the Open Network Install Environment (ONIE) software installer, and can be bundled with industry-leading software, including Cumulus® Linux 3.0.0. For more information on software compatibility, please refer to the "Software Compatibility" table on page 2.

Key Features Summary

◊ Cost-effective, bare-metal switch infrastructure for data center fabric.

◊ **(48)** RJ-45 Copper switch ports, supporting 10GBASE-T, 1000BASE-T, and 100BASE-TX Ethernet on Cat 6, Cat 6A, and Cat 7 twisted-pair cables (Cat 5e UTP cables support 1000BASE-T and 100BASE-TX only)

◊ **(6)** 40 QSFP switch ports, supporting 40 GbE (DAC, 40GBASE-SR4/LR4) or 4x10 GbE (DAC or fiber breakout cable).

◊ Full line-rate Layer 2 or Layer 3 forwarding of 720 Gbps

◊ VXLAN and NVGRE tunneling support in hardware for network

◊ Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.

◊ All ports on front; PSUs, hot swappable 4+1 fan tray on rear.

◊ Hot-swappable, load-sharing, redundant AC PSUs

◊ 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 below.

Technical Overview

Port Configuration (Front of Switch)
(48) RJ-45 copper ports supporting 100Mbps, 1GbE, or 10GbE
(6) 4x10GbE/40GbE QSFP ports
Management ports on front panel:
(1) RJ-45 serial console
(1) RJ-45 100/1000BASE-T management
(1) USB type A storage port

Switch Silicon and Memory
Silicon: Broadcom Trident II+ 720 Gbps
CPU: Intel Atom C2538 quad-core 2.4 GHz x86 processor
Memory: 8 GB SO-DIMM DDR3 SDRAM with EEC
16 MB SPI
8 GB NAND Flash

Power Supplies and Fan Tray (Rear)
Redundant, load-sharing power supplies, AC or -48VDC
AC: 90 to 264 VAC at 50-60Hz, max 6.0A at 100/120 VAC
Up to 93% PSU efficiency
Hot-swappable fan tray with 4+1 redundant fans
Max Power Consumption: 348 W

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: 44.25cm x 47.3cm x 4.39cm); 8.5kg

Warranty
All feature a limited 3-year warranty

Performance Specifications

C1 PN[1]	Switching Capacity (Gbps)	Forwarding Rate (Bpps)	VLAN IDs	MAC Address Table Size	Jumbo Frames (bytes)	L3 Routes	Packet Buffer Size (MB)	Latency (RFC2544) (L2/L3, cut thru, full line rate)	ECMP Group (Bytes)	VRF (bytes)	MPLS Tunneling	MPLS Label Lookup
C1-10G-48+6-R-BT2P-AF	720	1.0	4 K	320 K	9216	IPv4 64K IPv6 20K	12.0 (shared buffer pool)	720 ns	4096	4096	16 K	32 K

Software Compatibility

	C1-10G-48+6-R-BT2P-AF
Cumulus	Linux® 3.0.0
Pica8	Beta (available 08/2017)
Big Switch	Developing

Additional Options

Part Number Scheme: C1-10G-48+6-R-BT2P-A**z**

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

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+/SFP Transceivers		
Standard	Max. Rated Distances	Passport Part #*
10GBASE-T	30m	10GSFP+E-T
1000BASE-T	100m	1000SFPT 1000SFPTR2 MR-SFPGT(-H)
100BASE-TX		

QSFP+ Transceivers		
Standard	Max. Rated Distances	Passport Part #*
40GBASE-CR4 DAC	0.5m to 7m (Passive and active)	40GQSFP+E-DA01 40GQSFP+E-DA03 40GQSFP+E-DA05 40GQSFP+E-DA07
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

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

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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