

INTELLIPOINT DATA SHEET

10G 48+6-Port Open Networking Switch + 40G Uplinks



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 10G open network switch. This high-density solutions provide full line-rate switching at Layer 2 or Layer 3 across 48 10GbE ports and 6 40GbE uplinks. Port grouping allows the user to group 4x10GbE ports into one 40G port at the physical layer for maximum bandwidth utilization (and 300m reach over multi-mode fiber). All of this comes in a compact 1RU enclosure that also supports VXLAN and NVGRE tunneling functions in hardware.

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-series silicon chips. They come loaded with the Open Network Install Environment (ONIE) software installer, and can be bundled with industry-leading software from Big Switch®, Pica8®, IP Infusion®, and more. For more information, please refer to the "Software Compatibility" table on page 3.

Technical Specifications

PORT CONFIGURATION (FRONT OF SWITCH)

(48) 1/10GbE SFP+ ports
 (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

DIMENSIONS

Standard 19" Rack (WxDxH):
 43.8cm x 47.3cm x 4.34cm); 8.5kg

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
 DC: -48 to -72 VDC, 10.0A at -72 VDC
 12VDC power input option
 Hot-swappable fan tray with 4+1 redundant fans
 Max Power Consumption: 282 W

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

10G SFP+ Ports: Link Speed, Link Status, Activity
 40G QSFP+ Ports: Link Status, Activity for 40G Status
 40G QSFP Breakout (24 LEDs, 4/ port): Link, Status, Activity 10G links with 4x10G breakout
 Ethernet Mgmt Port: Link Status, Activity
 Console Port: Link Status
 System: PSU1, PSU2, Diagnostic, Fans, 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.
- 48 x SFP+ switch ports, supporting 10 GbE (DAC, 10GBASE-SR/LR) or 1 GbE (1000BASE-T/SX/LX).
- 6 x 40 QSFP+ switch ports, supporting 40 GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10 GbE (DAC or fiber breakout cable).
- Port Grouping to group 4 x 10G ports into one 40G port at the physical layer for maximum bandwidth utilization, and for 300m optical reach over MMF (subject to limitations from NOS).
- PHY-less, retimer-less design
- 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, 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" below.

Performance Specifications

C1 Part Number ¹	Switching Capacity (Gbps)	Forwarding Rate (Bpps)	Packet Buffer Size (MB)	Jumbo Frames (bytes)	VLAN IDs ²	MAC Address Table Size ²	L3 Routes ²	ECMP Group (Bytes) ²
C1-10G-48+6-S-BT2P-xyz	1440	1.0	16.0 (integrated packet buffer)	9216	4 K	32 K (min) / 288 K (max)	IPv4 16K (min) / 112K (max) IPv6 8K (min) / 56K (max) IPv6/64=8K (TCAM only mode)	4096

1. Refer to Ordering Information on Page 4 for details.
 2. Subject to NOS restrictions.

Silicon and Memory

Switch Silicon	Broadcom BCM56854 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 Compatibility



Contact Champion ONE for specific version compatibility.

Supported Optics

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	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

Ordering Information

PART NUMBER SCHEMEA:

C1-10G-48+6-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