



(2) 10GBase-X SFP+ slot (empty) + (1) 10/100/1000Base-T RJ-45 ports





Direct Attach Cables / Active Optical Cables

A simple to install, cost-effective and interoperable solution

Often used for data center short-reach interconnects, Direct Attach, Active Copper and Active Optical Cables are an indispensable part of any network.

Terminated with transceiver-style connectors, they are designed to be used in the same ports as a typical SFP+ or QSFP transceiver, with no need for adapters or converters. Our DAC and AOC cables offer compatibility with a huge range of vendors, enabling the connectivity you need within the Top of Rack and End of Row environments.

- 10G, 25G, 40G & 100G product solutions
- Seamless interoperability with network equipment
- Multi-code options enabling different OEM vendors at each end of the cable
- 4x breakout cables, 40G QSFP+ to 4x 10G SFP and 100G QSFP28 to 4x 25G SFP28
- Fast Delivery, Custom solutions
- Compatible with Over 90 Systems
- Savings of up to 70%



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The ION C4221 Network Interface Device (NID) is a remotely managed product that offers management via the ION Management Module for secure delivery of Ethernet services for business and mobile backhaul applications. The C4221 is a 10 Gig product with advanced features like remote management of the local and remote cards, VLAN, jumbo frame support, and bandwidth allocation of 10 Gig interfaces. The C4221 offers the additional functionality of a rate converter by also offering a 10/100/1000Base-T RJ-45 port allowing 10/100/1000 based devices to connect to 10 Gigabit Ethernet fiber backbone.

Features

- Full non-blocking switching on all interfaces
- (2) 10 Gig SFP+ ports supporting 100FX, 1000X, SGMII, and 10 Gig
- SFP ports individually support same or different speeds simultaneously
- (1) 10/100/1000Base-T port
- Local and remote units can be fully managed by the ION platform
- IPv4 IP TOS, DiffServ and IPv6 traffic class QoS classification via IONMM
- Bandwidth Allocation, per port, from 1 Gig to 10 Gig in 1 Gig increments
- Basic VLAN support
- Jumbo frame support, up to 10,240 bytes
- 16K maximum MAC Addresses
- 8Mbit shared buffer memory
- Remote firmware upgrades
- Auto-MDI/MDIX
- Auto-Negotiation
- SFP+ DMI monitoring (no vendor specific information)

Vers. 15.02.2019

- Pause
- Can be used in the ION 19-Slot, 6-Slot, and 1-Slot chassis
- Management provided by IONMM
- DHCP client
- Telnet
- Command Line Interface (CLI)
- Web management
- SNMP v1, v2c, and v3
- Management VLAN

Technical Data

Standards







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- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ab
- IEEE 802.3ae

Ports

- (1) Copper RJ-45 10/100/1000Base-T port
- (2) Fiber 10 Gig SFP+ ports supporting 100FX, 1000X, SGMII, and 10 Gig USB port for basic setup

Status LEDs

Power

SFP+ Link/Activity for each port

- TP Left LED: Duplex, TP Link/Activity
- TP Right LED: TP Speed
- USB Activity

Switches/Jumpers

• One jumper to load factory defaults

Dimensions

• Width: 0.86" [21.85 mm] • Depth: 6.5" [165 mm]

• Height: 3.4" [86.36 mm]

Power Input

• ION Chassis Backplane

Power Consumption

• 6.24 Watts, 12VDC

Environment





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Operating: 0°C to 50°CStorage: -40°C to 85°C

• Humidity: 5% to 95% (non-condensing)

• Altitude: 0 – 10,000 ft.

Weight

• 1 lb. [0.45 kg]

MTBF

- Greater than 250,000 Hours (MIL-HDBK-217F)
- Greater than 687,500 Hours (Bellcore)

Certifications

• Safety: CE Mark;

• Emissions: EN55022 Class A;

• Immunity: EN55024

Warranty

• 10 Years

Product variants & accessories

ArtNo.	Description
C4221-4848	(2) 10GBase-X SFP+ slot (empty) + (1) 10/100/1000Base-T RJ-45 ports