

# C4221-4848

## ION 10 Gigabit Ethernet Remotely Managed Media and Rate Converter NID

### 10GBase-X to 10GBase-X + 10/100/1000Base-T with Remote Layer 2 Management



The ION C4221 Series of Network Interface Devices (NIDs) 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.



#### Ordering Information

##### C4221-4848

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

Optional Accessories (sold separately)

##### SFP Modules

SFP+ modules supported:  
100FX, 1000X, SGMII, and 10 Gig

#### 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
- Can be used in the ION 19-Slot, 6-Slot, and 1-Slot chassis

#### Specifications

Standards	IEEE 802.3 IEEE 802.3ah IEEE 802.1p IEEE 802.1Q IEEE 802.1x 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, 520mA@ 12VDC
Environment	Operating: 0°C to 50°C Storage: -40°C to 85°C Humidity: 5% to 95% (non-condensing) Altitude: 0 – 10,000 ft.
Weight	1 lb. [0.45 kg]
Compliance	Safety: CE Mark; Emissions: EN55022 Class A; Immunity: EN55024
Warranty	10 Years

#### Features Continued

- Management provided by IONMM
  - DHCP client
  - Telnet
  - Command Line Interface (CLI)
  - Web management
  - SNMP v1, v2c, and v3
  - Management VLAN

#### Features Coming Soon

- SFP+ DMI monitoring
- Fully compliant with OAM from IEEE 802.3ah – 2004 standard
- Loopback
- IEEE 802.1p QoS
- Transparent Link Pass Through
- Utilizes USB Type B connector for basic setup
- Full IEEE 802.1q VLAN and double VLAN tagging
- RMON/Statistics counters per port
- Pause
- IP-addressable management support