

slide-in-module for the ion platform

# C3210 Series

## 10/100/1000BASE-T to 1000BASE-SX/LX Slide-in-Module



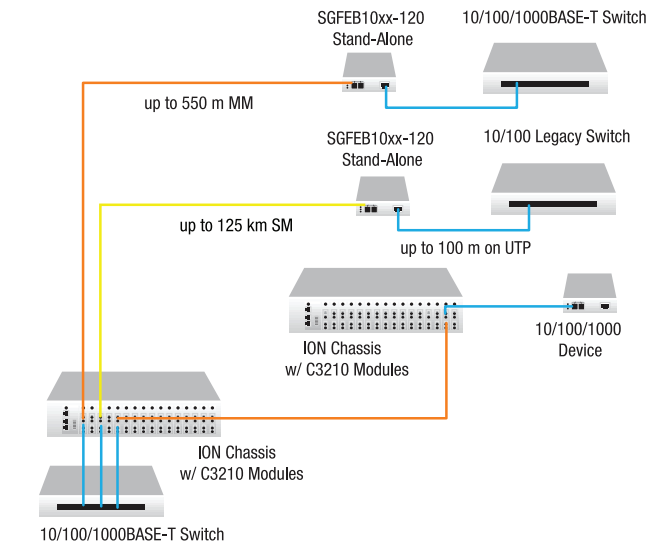
The ION C3210 device provides an interface between 10/100/1000Base-T ports and 1000Base-SX/LX ports allowing users to integrate fiber optic cabling into 10/100/1000Base-T copper environments.

- ▶ Intergrate fiber into copper based networking environments
- ▶ Can be used in any ION Platform Chassis
- ▶ Bridging legacy 10/100 devices into a Gigabit Backbone
- ▶ Secure Uni-directional transmission
- ▶ Standards based, will link with any standard 10/100/1000Base-T and any standard 1000Base-SX or LX ports

The following manageable features are available when used in an ION Platform chassis along with an ION Management Module:

### Features

- ▶ Copper and Fiber Auto-Negotiation
- ▶ Switch Selectable Speeds
- ▶ AutoCross™ [
- ▶ Link Pass Through
- ▶ Remote Fault Detect
- ▶ Pause
- ▶ Automatic Link Restoration
- ▶ IEEE 802.1P QoS, IPv4 TOS/Diffserv, IPv6 traffic class
- ▶ IEEE 802.1q Port VLAN, tagging and doubling tagging (Q in Q)
- ▶ Field Upgradeable Firmware
- ▶ Virtual Cable Test on UTP port
- ▶ Uni-directional data transmission
- ▶ Bandwidth Allocation
- ▶ DMI, digital diagnostics per SFF-8472
- ▶ RMON counters for each port



Report devices status to chassis management software:

- ▶ Copper and Fiber link status
- ▶ Copper and Fiber Port Duplex
- ▶ Copper Port Speed
- ▶ Hardware switch settings
- Write operation includes:
  - ▶ Set copper full/half duplex
  - ▶ Set copper connection speed
  - ▶ Enable/Disable: Link pass Through, Auto-Negotiation, Port VLAN
  - ▶ Set Administrative State
  - ▶ Set Egress and Ingress rate limits

- ▶ Reset Factory Defaults, Counters
- ▶ Reset Switch
- ▶ Set Speed
- ▶ Set Duplex
- ▶ Set MDI/MDI-X/Auto
- ▶ Set Pause Operations
- ▶ Set VLAN Tagging
- ▶ Set Default Priority
- ▶ Set IEEE priority remapping
- ▶ Initiate Virtual Cable Test
- ▶ Set Fiber RX Power Intrusion Threshold

### Specifications

Standards	IEEE 802.3, IEEE Std. 802.3ab, IEEE 802.3u, IEEE 802.3z, IEEE 802.3p, IEEE 802.3q
Data Rate	10/100/1000 Mbps; Layer-2
Max Frame Size	10,240 Bytes (jumbo frame support) 1,632 Bytes when linked to an xGFEB10xx-120
Switches	<b>SW1:</b> TP Auto-Negotiation <b>SW2:</b> TP Speed <b>SW3:</b> TP Duplex <b>SW4:</b> Link Pass Through <b>SW5:</b> Fiber Duplex <b>SW6:</b> Unused
Hardware/Software Jumpers	Hardware/Software mode, AutoCross™
Status LEDs	<b>PWR (Power):</b> ON = Connection to powered backplane <b>LACT (Fiber Link):</b> ON = Fiber link, Blinking = activity <b>UTP Duplex/Link:</b> Orange = half duplex link, Blinking = half duplex activity, Green = Full duplex link, Blinking = Full duplex activity, Off = 10 Mbps operation (or no link), Orange = 100 Mbps operation, Green = 1000 Mbps operation
Dimensions	<b>W:</b> 0.86" [22 mm]; <b>D:</b> 6.5" [165 mm]; <b>Ht:</b> 3.4" [86 mm]
Power Consumption	3.6 Watts, 300mA @ 12 VDC
Environment	See chassis specifications
Shipping Weight	1 lb [.45 kg]
Regulatory Compliance	CISPR/EN55022 Class A, EN55024, EN61000, FCC Class A, CE Mark
Warranty	Lifetime

## Gigabit Ethernet

### Ordering Information

- C3210-1013**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-SX 850nm MM (SC)  
[62.5/125 µm fiber: 220 m/722 ft.]  
[50/125 µm fiber: 550 m/1804 ft.]  
Link Budget: 8.5 dB
- C3210-1024**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-SX 1310nm extended MM (SC)  
[2 km/1.2 mi.] Link Budget: 7.0 dB
- C3210-1014**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1310nm SM (SC)  
[10 km/6.2 mi.] Link Budget: 10.5 dB
- C3210-1015**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1310nm SM (SC)  
[25 km/15.5 mi.] Link Budget: 15.0 dB
- C3210-1017**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1550nm SM (SC)  
[65 km/40.4 mi.] Link Budget: 21.0 dB
- C3210-1035**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1550nm SM (SC)  
[125 km/77.5 mi.] Link Budget: 27.0 dB
- C3210-1040**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000Base-X SFP Slot (empty)
- Single Fiber Products**  
Recommended use in pairs
- C3210-1029-A1**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1310nm TX/1550nm RX  
single fiber single mode (SC)  
[20 km/12.4 mi.] Link Budget: 13.0 dB
- C3210-1029-A2**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1550nm TX/1310nm RX  
single fiber single mode (SC)  
[20 km/12.4 mi.] Link Budget: 13.0 dB
- C3210-1029-B1**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1310nm TX/1550nm RX  
single fiber single mode (SC)  
[40 km/24.9 mi.] Link Budget: 20.0 dB
- C3210-1029-B2**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1550nm TX/1310nm RX  
single fiber single mode (SC)  
[40 km/24.9 mi.] Link Budget: 20.0 dB
- C3210-1029-D1**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1510nm TX/1590nm RX  
single fiber single mode (SC)  
[80 km/49.7 mi.] Link Budget: 24.0 dB
- C3210-1029-D2**  
10/100/1000BASE-T (RJ-45) [100 m]  
to 1000BASE-LX 1590nm TX/1510nm RX  
single fiber single mode (SC)  
[80 km/49.7 mi.] Link Budget: 24.0 dB