

# C6120 Series

## 4xT1/E1/J1 + 10/100 Ethernet



The ION 4xT1/E1/J1 copper to fiber network interface device (NID) provides a solution for those users that need to extend multiple T1/E1 connections and 10/100Mbps Ethernet over fiber.

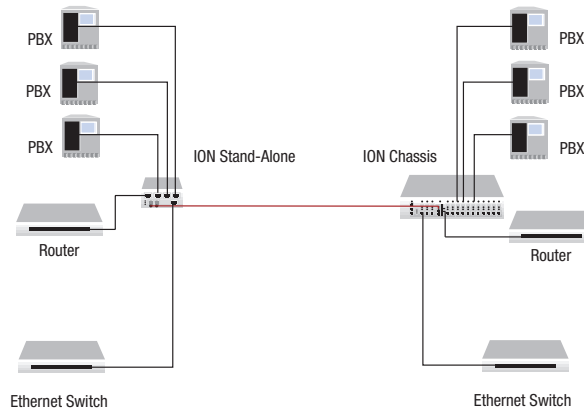
The ION 4xT1/E1/J1 supports Small Form Pluggable (SFP) transceivers to support a variety of fiber types, distances and wavelengths to provide maximum flexibility across a variety of network topologies.

The use of Coarse Wave Division Multiplexing (CWDM) SFPs can be utilized to further increase the bandwidth capacity of the fiber infrastructure.

The ION 4xT1/E1/J1 NID must be used in pairs. A typical installation will include a chassis card installed in the ION Platform locally and a stand-alone device installed at the remote location.

### Features

- ▶ 4 x RJ-48 copper interfaces
- 1 fiber interface (fixed or SFP)
- 2 SFP ports on C6121-1040 model
- 1 RJ-45 10/100Mbps Ethernet port
- ▶ AutoCross (auto MDI/MDI-X on Ethernet port)
- ▶ Pause (Flow Control) on Ethernet port
- ▶ Loopback via test set
- ▶ Local and remote loopbacks
- ▶ LEDs for device status and troubleshooting
- ▶ Settings for line code, line build out, loopbacks and Alarm Indication Signal (AIS)
- ▶ Access to complete status and configuration on local and remote device
- ▶ Remote firmware upgrade
- ▶ Remote management



### Applications

- ▶ T1/E1/J1 extension over fiber
- ▶ Mobile backhaul
- ▶ Business customers

### Hardware and Performance Specifications

Standards	ANSI T1.102, T1.403 and T1.408 ITU I.431, G.703, G.736, G.775 and G.823 ETSI 300-166, 300-233 and TBR 12/13 AT&T Pub 62411 IEEE 802.3™-2008
Switches	Numerous switch settings for line coding, line build out, loopback and AIS
Data Rate	Copper ports (RJ-48): T1(J1) = 1.544Mb/s, E1 = 2.048Mb/s Ethernet port (RJ-45): 10/100Mbps SFP port(s) (empty): 100BASE-X/OC-3
Status LEDs	Power, Port Status, Loopback and AIS
Dimensions	<b>Width:</b> 1.72" [44 mm] <b>Depth:</b> 6.5" [165 mm] <b>Height:</b> 3.4" [86 mm]
Power Consumption	6W max for dual fiber model, 5.5W max for single fiber model
Environment	See chassis specifications
Safety Compliance	EN55022 Class A, EN55024, CE mark
Shipping Weight	1 lbs. (0.45 kg)
Warranty	Lifetime

### Ordering Information

<b>C6120-1011</b>	1300nm multimode (ST) [2 km/1.2 mi.] Link Budget: 11.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1013</b>	1300nm multimode (SC) [2 km/1.2 mi.] Link Budget: 11.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1014</b>	1310nm single mode (SC) [20 km/12.4 mi.] Link Budget: 16.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1015</b>	1310nm single mode (SC) [40 km/24.9 mi.] Link Budget: 29.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1016</b>	1310nm single mode (SC) [60 km/37.3 mi.] Link Budget: 32.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1017</b>	1550nm single mode (SC) [80 km/49.7 mi.] Link Budget: 29.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1035</b>	1550nm single mode (SC) [120 km/74.6 mi.] Link Budget: 36.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1040</b>	1 SFP port (Empty) to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6121-1040</b>	2 SFP ports (Empty) to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>Single Fiber Products</b> Recommended use in pairs	
<b>C6120-1029-A1</b>	1310nm TX/1550nm RX single fiber SM (SC) [20 km/12.4 mi.] LB: 19.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1029-A2</b>	1550nm TX/1310nm RX single fiber SM (SC) [20 km/12.4 mi.] LB: 19.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1029-B1</b>	1310nm TX/1550nm RX single fiber SM (SC) [40 km/24.9 mi.] LB: 25.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]
<b>C6120-1029-B2</b>	1550nm TX/1310nm RX single fiber SM (SC) [40 km/24.9 mi.] LB: 25.0 dB to (4) RJ-48 [1.5 km/0.9 mi.] plus 10/100BASE-TX (RJ-45) [100m]