

## ION DS1 - T1/E1 Network Interface Device Module

### DS1 - T1/E1 over Fiber



The ION C6010 is a managed media converter that offers a solution for extending T1/E1 or PRI connections over fiber optic cabling. It provides fiber extension through a twisted pair RJ-48 port and a fiber port. These T1/E1 converters must be used in pairs, one on each end of the fiber link. Typical installations include a chassis card installed in a centrally located managed ION chassis, linked over fiber to a S6010 stand-alone converter at the remote location. The T1/E1 converters are available with fixed fiber connectors or an open SFP slot, with support for various fiber types, distances, and wavelengths to provide maximum flexibility for any network topology. CWDM SFPs can also be used to further increase the bandwidth capacity of the fiber infrastructure.

### Features

- Remote in-band management
- Local or Remote Loopbacks - Copper or Fiber
- Switch selectable for T1 or E1
- Remote firmware upgrade
- LEDs for immediate visual status
- Supports dual or single fiber
- Supports multimode and single mode fiber at a variety of distances
- Supports CWDM SFPs
- SNMP management when used with ION chassis and management module
- Remote stand-alone can be managed by local peer
- Extend PRI over fiber
- Must be used in pairs

### Specifications

Standards	ANSI T1.102 T1.402 T1.408 ITU I.431 G.703 G.736 G.775 G.823 ETSI 300-166 ETSI 300-233 TBR12/12
Copper Connectors	RJ-48, BNC
Fiber Connectors	SFP: LC connector Uses standard 100Base-X/OC-3 SFP Fixed Optics: ST or SC connector
Data Rates	T1 = 1.544 Mbit/s, E1 = 2.048 Mbit/s
Status LEDs	Power, Signal Detect Copper, Signal Detect Fiber
Dimensions	Width: 0.86" [22 mm] Depth: 6.5" [165 mm] Height: 3.4" [86 mm]
Power Consumption	2.6 Watts
Environment	Environment specs are dependent on the chassis chosen Operating: 0°C to 50°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-HDBD-217F) Greater than 687,000 hours (Bellcore)
Certifications	CISPR/EN55022 Class A, FCC Class A, CE Mark
Warranty	Lifetime

### Ordering Information

**C6010-1013**  
Twisted Pair (RJ-48) [1.5 km/0.9 mi.]  
to 1300nm multimode (SC) [2 km/1.2 mi.]  
Link Budget: 12.0 dB

**C6010-1014**  
Twisted Pair (RJ-48) [1.5 km/0.9 mi.]  
to 1310nm single mode (SC)  
[20 km/12.4 mi.] Link Budget: 16.0 dB

**C6010-1040**  
Twisted Pair (RJ-48) [1.5 km/0.9 mi.]  
\*to SFP slot (empty)

Optional Accessories (sold separately)

#### SFP Modules

\*SFP port uses standard 100Base-x/oc-3 SFP