Headend Optics Platform (CH3000)
CX3033N
Enhanced Network Interface, Management, and Communications Module

COMMSCOPE®

FEATURES

- Locally or remotely monitor and manage active devices including CH3000 headend modules, nodes, transceivers, and receivers
- Supports CommScope's Opti-Trace family of management software and third-party software over a standard IPv4 network with optional IPv6 support
- Supports management and provisioning of new customer connections from the headend
- Managed via SNMP or Opti-Trace EMS; easy integration with any standard SNMP-compliant NMS
- Provides status, alarms, configuration, and SNMP hosts traps
- Two 10/100/1000 Mbps ethernet ports; second port supports daisy-chaining of CX3033N modules in multiple chassis
- Optical port is field configurable with a variety of SFP plug-in transceivers (1310 nm, 1550 nm, CWDM)
- Embedded Web server for Web-based management of CH3000 Chassis
- Instruments standards-based SCTE HMS Alarms framework
- Zero-slot form factor; no additional dedicated chassis slot required as module mounts on top of any power supply from rear of chassis
- Hot plug-in/out

The CX3033N Enhanced Network Interface, Management, and Communications Module is a CH3000 chassis module that is used to quickly provision new customer connections from the headend. The module can either locally or remotely monitor and manage active devices including nodes, transceivers, and receivers in CommScope's fiber networks using the Opti-Trace® Element Management System (EMS) or standard SNMP network management tools.

The CX3033N Module also supports the remote configuration and monitoring of modules installed in the CH3000 Chassis through connection to the CH3000 chassis mid-plane alarm bus. The CX3033N does not require a dedicated slot in the chassis; instead, it is mounted on the back-end of the chassis above any PS3xxx power supply module. The CX3033N also supports Web-based management of the CH3000 Chassis.

In addition to compatibility with CommScope's Opti-Trace software, the module's SNMP proxy agent enables equipment monitoring and integration with other industry standard NMS solutions. The CX3033N may also be configured to send SNMP traps to warn operators of various alarm conditions.

The CX3033N provides a full-duplex SFP optical port and two RJ-45 10Base-T ports for interfacing to a management server/terminal. The full-duplex optical port accepts a variety of SFP plug-in transceivers available from CommScope for network communications with CommScope's high-speed digital transport system and DWDM optical transport technology. One of the CX3033N's two 10/100/1000BaseT ports is used to interface to a standard IP network. The second 10/100/1000BaseT port can be used to daisy-chain additional CX3033N/CX3003C modules to support monitoring of multiple chassis per site, thus reducing requirements for external hubs.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	8.1" D x 1.7" H x 2.0" W (20.6 cm x 4.3 cm x 5 cm) (Installs in rear of power supply; no separate chassis slot required)
Weight	0.7 lbs (0.32 kg). This does not include weight of SFP.
Environmental	
Operating Temperature Range	-20° to +65°C (-4° to 149°F)
Storage Temperature Range	-40° to +85°C (-40° to +185°F)
Humidity	5% to 95% non-condensing
Power Requirements	
Input Voltage (from chassis mid-plane)	12 V_{DC}
Power Consumption	5.5 W with installed SFP TTD4580-21-PI
General	
	Hot plug-in/out
Management Interface	RJ-45 (Two 10/100/1000BaseT ports)
	Supports SNMPv1 and SNMPv2
Optical Transmission Bit Rate	2.125 Gbps
Optical Interface	SFP transceiver
Ethernet Ports	
Connector Type	8-pin RJ-45 (Two connectors, IN and OUT)
Cable Length	328 ft (100 m), CAT-5 compliant
Speed Supported	10/100/1000 Mbps (full duplex). Any port connected to a CX3002 is limited to 10 Mbps (half duplex).
Optical Port	
	The network optical port can be populated with a variety of SFP plug-in transceivers depending on the network application. Please refer to the appropriate data sheets for the selected transceivers for detailed specifications. Following is a summary of available transceiver options (model numbers and brief descriptions) for this port.
Network Port (2.125 Gbps) Transceivers	• TR40xx-PI (transmit at 1310 nm for links up to 10 km or 40 km) • TR4540-0000-PI (transmit at 1550 nm for links up to 40 km) • TR4580-xx-PI (transmit at DWDM Channels 20-59, for links up to 120 km) • TR4440B-xxxx-PI (transmit at CWDM wavelength of xxxx = 1270, 1290, ..., 1350 or 1430, 1450, 1470, ..., 1610 nm for links up to 40 km)
Front Panel	
Status LEDs	• Green = OK • Yellow = non-service-affecting alarm (or alarm history present) • Red = service-affecting alarm
Access LED	• Access = Blue (communications active with chassis mid-plane)
SFP Port LEDs	• Red = LOS = indicates loss of signal on the optical receiver port • Red = BER = indicates excess bit error rate on the optical receiver port
RJ-45 Port LEDs	• Yellow = indicates 10/100 Mbps LINK status and activity • Green = indicates 1000 Mbps LINK status and activity
Reset Push-button	Soft reset and configuration reset
RS-232 and micro-USB Ports	Reserved for factory use. RS-232 port uses a stereo jack style connector.

ORDERING INFORMATION

Model Name	Description
CX3033N	Enhanced Network Interface, Management, and Communications module for CH3000 chassis, plugs in above PS3000 Series Power Supplies, providing node control and SNMP management.

The CX3033N Communications Module can be installed in either power supply back plate BP-P1 or BP-P2 above the AC or DC power supply module and does not require its own dedicated CH3000 slot.

RELATED PRODUCTS

CH3000 Chassis	Opti-Trace® OTS/EMS
DR3450N-00 Receivers	PS3006/PS3248 Power Supplies
BP Back Plates	Installation Services

Contact Technical Services for product support:
- United States: +1-888-944-4357
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