

Headend Optics Platform (CH3000)

NI3030

Network Interface Module

FEATURES

- High density chassis-based Network Interface Module, enabling termination of up to 96 Fast Ethernet ports per chassis in CH3000 chassis
- Serves up to 16 customers per module, each with a dedicated wirespeed full- duplex 100Base-T port
- Optical port is field configurable with a variety of SFP plug-in transceivers (1310 nm, 1550 nm, CWDM)
- Layer 1 transport device
- Low latency and low delay variation (jitter)
- Managed via SNMP or Opti-trace EMS
- High degree of customer data security and isolation
- Hot plug-in/out



PRODUCT OVERVIEW

The NI3030E is a chassis-based standard rack/chassis module that interfaces headend, hub or regional data center (RDC) WAN routers and switches to ARRIS's transport network. It provides up to 16 full-duplex, wirespeed, symmetric, dedicated and completely independent local 100 Mbps connections for up to 16 customers, making a total throughput of 3.2 Gbps.

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The unit's full-duplex optical port accepts any of a variety of SFP (plug-in) transceivers available from ARRIS for network communications with ARRIS's high-speed digital transport system and DWDM optical transport technology.

The NI3030E is a Layer 1 transport device and is fully transparent to Layer 2 and higher protocols. Higher layer functionalities and external value-added applications such as VLAN tagging are preserved and passed through. Traffic is channelized end-to-end via TDM, enabling a very high degree of security.

The NI3030E provides (1) 16 RJ-45 ports for connections to routers and switches, (2) a full-duplex optical port, (3) a standard Compact Flash card slot to store program and network configuration files, and (4) an RJ-45 10Base-T port for interfacing to a management server/terminal.

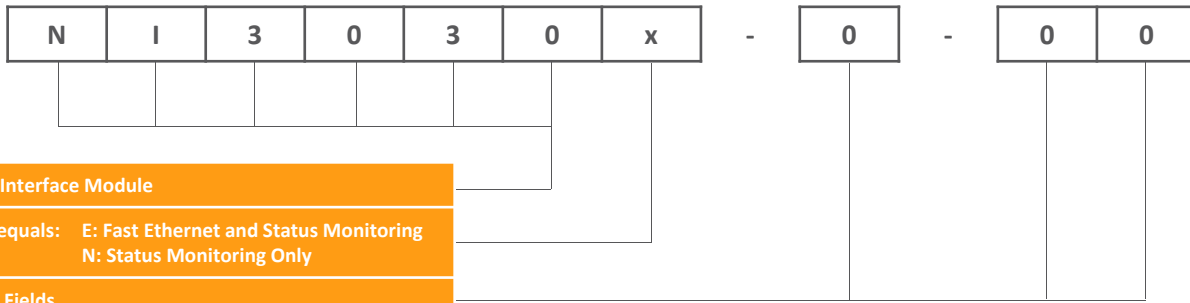
The NI3030E can be used to assist in quickly provisioning new customer connections from the headend, and can either locally or remotely monitor and manage every active device (including nodes, transceivers and receivers) in ARRIS's fiber network using standard SNMP.

The NI3030N supports network monitoring and node control only. The NI3030N does not include the 16 RJ-45 ports.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	13.0" D x 4.3" H x 2.0" W; 33 cm x 11 cm x 5.1 cm (3RU height, 2 chassis slots in width)
Weight	2.6 lbs (1.2 kg)
Environmental	
Operating Temperature Range	-20° to +65°C (-4° to 149°F)
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)
Humidity	5% to 95% non-condensing
Power Requirements	
Input voltage (from chassis mid-plane)	12 V _{DC}
Power consumption	16 W (max)
General	
Optical transmission bit rate	2.125 Gbps
Optical interface	SFP transceiver
Hot plug-in/out	
Local Ethernet Ports (Model NI3030E only)	
Connectors	16 RJ-45 (8-pin)
Cable length, max	100 meters (CAT-5 compliant cable)
Speed supported	100 Mbps (full duplex)
Protocols supported	Layer 2 VLAN (64 to 1522-byte packet lengths), ToS bit in IP header, Priority (802.1p, transparent), QoS (802.1q, transparent), QinQ, and MAC-in-MAC
Auto-negotiation	advertises 100 Mbps, full duplex only
Optical	
	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	<ul style="list-style-type: none"> TR40xx-PI (transmit at 1310nm for links up to 10 km or 40 km) TR4540-0000-PI (transmit at 1550nm for links up to 40 km) TR4580-00-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)
Indicators and Alarms	
	Front panel status indicators: green LED (OK), yellow LED (non-service-affecting alarm), red LED (service-affecting alarm), blue LED (illuminated during midplane communication access)
Rear panel indicators	Optical port: red "LOS" LED (indicating loss of signal at optical receiver port), red "BER" LED (indicating excess bit error rate on the optical receive port)
	RJ-45 ports: Link and Activity LEDs
	Service affecting alarms: DC failure, hardware failure, loss of optical power, loss of valid data on data input

ORDERING INFORMATION



- Network Interface Module
- Where x equals: E: Fast Ethernet and Status Monitoring
N: Status Monitoring Only
- Reserved Fields

Note
An appropriate SFP (plug-in) transceiver for the network optical port must be selected for your application. SFPs are ordered separately. (Please refer to the list of available SFPs above.)

RELATED PRODUCTS

CH3000 Chassis	Optical Passives
Digital Return	Optical Patch Cords
BP Back plates	Installation Services

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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