

# MODEL 9145E

## 1 Gigabit Network Interface Device (NID)

There is a major difference between simply terminating Metro Ethernet Services, *and terminating them PROFITABLY*. A basic media converter may suffice – but media converters do not ensure the customer's packet stream is "Transport Ready" for your network and will not provide availability and service levels customers' demand. Nor do media converters perform the EVC functions needed for metro Ethernet Services or the advanced OAM functions required by for network operations and the core network.

Terminating Metro Ethernet Services reliably and profitably requires more capabilities than simple media converters provide. Canoga Perkins 9145E Network Interface Device (NID) provides the comprehensive set of features needed while being exceptionally easy to deploy.

The industry leading 9145E NID Family supports Metro Ethernet Services Subscriber and Network interfaces that range from 10 Mbps to 100 Gbps, including GR-3108 Hardened and Outdoor models. The entire family supports a common set of features and functions, enabled by a scalable network processor architecture. As with all the members of the Family, the 9145E shares all of these advantages.

The 9145E provides demarcation at the UNI and NNI Interfaces for both protected and unprotected links. Used at the ENNI gateway with another Service Provider or Operator network, the 9145E provides an independent arbitration device that unquestionably sectionalizes problems and provides a performance management test access point to quantify performance of the Service Providers Network verses Operator Network on a Customer EVC.

The 9145E has the power for today's and tomorrow's most advanced and complex services - including per EVC traffic management and stats, Availability Monitoring, Performance Measuring, Link OAM, Service OAM and Packet filtering. Future features are a simple software update away. Hardened and Outdoor models are available for partially controlled outside plant deployments - certified to both NEBS3 (office) and GR-3108 Class 2 (hardened) and GR-3108 Class 4 (Outdoor). These models are perfect for unconventional service deployments (service stations, traffic control systems, etc.) and Cell Tower connectivity.



### FEATURES:

- **2 Port (User Port, Network Port) and 4 Port (User Port, Network Port, Multi-Purpose Port, Ethernet Management Port) Versions**
- **Dual UTP/SFP support for User, Network and Multi-Purpose Ports, UTP for Ethernet Management Port**
- **10/100/1000Base-Tx Tri-Speed Auto-Negotiation and Remote-End Unattended Set-up for Speed and Duplex**
- **100 Mbps, Gigabit, CWDM and Single Fiber BIDI SFP Optics Options**
- **Advanced Management Access using SNMP v1/v2c/v3, Telnet/SSH, RMON and Local Management Ports**
- **CanogaView® Element Management System with Performance Collection System for real-time management of NIDs and Collection of Service KPIs**
- **Ethernet Jumbo Packet Support – Transport, Diagnostics, Availability Monitoring and Network Performance Measuring**
- **VLAN Tagging, Stacking and P-Bit Marking, QoS Level Traffic Shaping and Policing**
- **Remotely Activated and Configurable Loopback Diagnostics**
- **Advanced OAM Functions including Link OAM, Service OAM, Y.1731 On-Demand Throughput Measurements, Service Activation, Performance Monitoring (PM), Service Availability Monitoring (SAM) and Continuous Performance Monitoring**
- **E-Line, E-LAN and E-Access Services Support**
- **AC, DC and Redundant Power Configurations**
- **GR-3108 Class 2 Hardened and GR-3108 Class 4/GR-487 Outdoor Versions Available**
- **NEBS Level 3, GR-3108 (Class 2 and 4) and GR-487 Tested and Certified**



World Headquarters

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Specifications (see the Outdoor NID Datasheet for that model's specifics)

### ● PHYSICAL

#### Dimensions

1.75" H x 8.3" W x 12.5" D  
(44mm x 210mm x 317mm)

#### Weight

3.9 lbs (1.77 kg)

#### Mounting

Single and Dual Unit Rack Mount  
Tabletop, Wall Mount

### ● OPERATING ENVIRONMENT

#### Standard Models

0° to +50°C (32° to 122° F)  
5% to 90% RH (non-condensing)

#### Hardened Models

-40° to +65°C (-40° to 150° F)  
5% to 90% RH (non-condensing)

### ● POWER

#### Redundant and Non-redundant Options

#### Standard Models

##### AC Power Supply

100 VAC to 240 VAC, 50/60 Hz  
Auto Ranging - 30W Max.

##### DC Power Supply

36 VDC to 72 VDC, 30W Max.

#### Hardened Models

##### 48v DC Power Supply

36 VDC to 72 VDC, 30W Max.

##### 24v DC Power Supply

18 VDC to 36 VDC, 30W Max.

### ● MANAGEMENT

SNMPv1, SNMPv2c and SNMPv3, In-band  
RMON I

Serial EIA-232-E Direct Terminal

CanogaView Element Management System

Performance Collection System

Telnet, PPP

### ● INTERFACES

User Port, Network Port & Multi-Purpose Port

10/100/1000 UTP and 100/1000 SFP

Ethernet Management Port

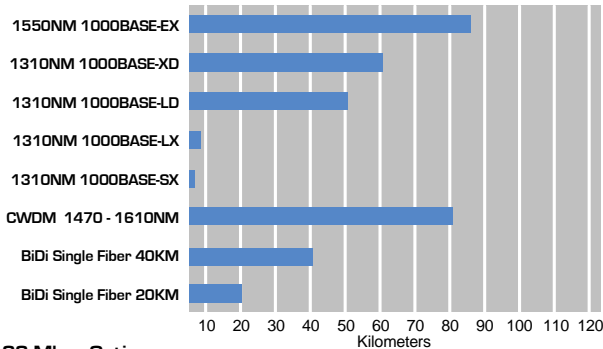
10/100 UTP

Serial Craft Port

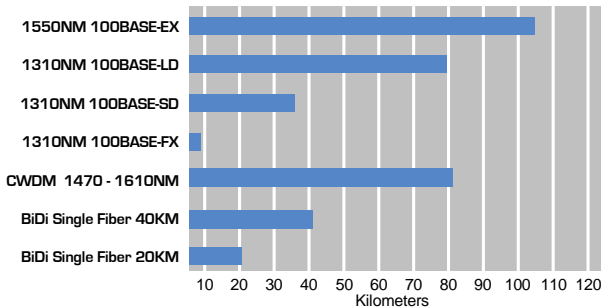
EIA/TIA-RS-232

### ● Optical Distances

#### Gigabit Optics



#### 100 Mbps Optics



These are typical distances on SMF-26 fiber. Actual distance is dependent on fiber type, condition and configuration. Please read Canoga Perkins' Application Note entitled "How Far Can I Reach" for additional information.

Please contact your Canoga Perkins' sales representative for current SFP offerings.

### ● REGULATORY COMPLIANCE

ETL, ETLc (UL 60950 CAN/CSA C.22 No. 60950,  
EN/IEC 60950)

IEC 60825-1

FCC Part 15B/ICES-003/VCCI Class A  
C-Tick (AS/NZS 3548)

EN 55022 Class A, EN 55024

EN 61000-3-2, EN 61000-3-3

NEBS Level 3

GR-3108 Class 2 (Hardened Models)

GR-3108 Class 4 / GR-487 (Outdoor Models)



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