MODEL 9145E10G
10 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 by your network or the advanced OAM functions required by for network operations and the core network.

Terminating Metro Ethernet Services reliably and profitably is more than just dropping off a 10GbE signal. An Intelligent Demarcation Device is required to condition and manage customer traffic for transport needed to sustain high performance services.

The industry leading 9145E NID Family provides Metro Ethernet Services with Customer and Network Interface speeds from 10 Mbps to 10Gbps and GR-3108 Hardened models. The entire family implements a common set of features and functions, enabled by a scalable Communication Processor and CPU architecture. The 9145E10G shares all of these advantages.

As with the 9145E, the 9145E10G 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 9145E10G 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.

Advanced diagnostic and performance monitoring features of the 9145E10G quickly identifies specific local loop and customer termination issues, so when field dispatches are to correct specific issues, not just troubleshoot. This increases service availability and reduces OPEX.

The 9145E10G's advanced features has the power for today's and tomorrow's most demanding and complicated 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. Certified to NEBS Level 3, it is ready for Customer Premises, Central Office and POP Site deployments.

FEATURES:

- **2 Port (User Port, Network Port) and 4 Port (User Port, Network Port, Multi-Purpose Port, Ethernet Management Port) Versions**

- **10GbE XFP User Port, 10GbE XFP Network Port, 1GbE Dual UTP/SFP Multi-Purpose Port and 10/100 UTP Ethernet Management Port**

- **Local, 10K, 40K & 80K XFP Optics available. CWDM and DWDM and 120km upon request**

- **Advanced Management and OAM Support including SNMP v1/v2C, CFM, EFM, Telnet, RMON and Local Management Ports**

- **Enhanced Management Security using SNMP v3, SSH, SFTP, and RADIUS Client**

- **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**

- **Other than Speed, Same Features and Functions as the 1GbE and 100GbE Versions of the 9145E Family**

- **NEBS Level 3 Tested and Certified**

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Specifications

- **PHYSICAL**
  Dimensions
  1.75" H x 8.25" W x 11.5" D
  (45mm x 210mm x 290mm)
  Weight
  6 lbs (2.7 kg)
  Mounting
  Single and Dual Unit Rack Mount
  Tabletop
  Wall Mount

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

- **POWER**
  AC Power Supply
  100 VAC to 240 VAC, 50 to 60 Hz
  Auto Ranging - 58W
  DC Power Supply
  48V: 36 VDC to 72 VDC, 48W
  24V: 18 VDC to 36 VDC, 48W
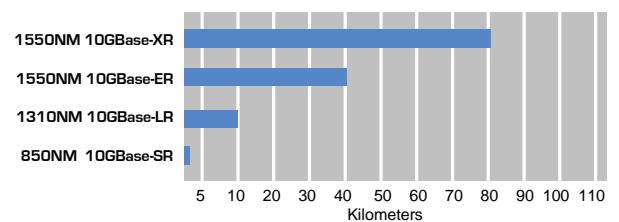
- **MANAGEMENT**
  SNMPv1, SNMPv2c and SNMPv3
  Serial EIA-232-E Direct Terminal
  CanogaView Element Management System
  Performance Collection System
  Telnet

- **INTERFACES**
  User Port & Network Port
  10GbE XFP
  Multi-Purpose Port
  10/100/1000 UTP and 100/1000 SFP
  Ethernet Management Port
  10/100 UTP
  Serial Craft Port
  EIA/TIA-RS-232-E, 9.6-19.2Kbps Async

- **Optical Distances**

  10 Gbps Gigabit Optics

	Kilometers
1550NM 10GBase-XR	~80
1550NM 10GBase-ER	~40
1310NM 10GBase-LR	~10
850NM 10GBase-SR	~1

  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