Prisma DS3/E3/STS-1 LineTerm Media Converters

Prisma® DS3/E3/STS-1 LineTerm Media Converters are designed for Telecommunications service providers as well as enterprise campus networks utilizing DS3/E3/STS-1 coaxial circuits. These modules enable users to convert coax media to single-mode or multi-mode fiber and extend the distance of data transmissions over networks up to 80 km.

Available with remote management via the fiber port, DS3/E3/STS-1 LineTerm modules enable network managers to conduct loopback testing, to monitor, and to manage units located up to 80 km away. Cisco management technology functions transparently to the user data, providing real-time, end-to-end management at all times. Signal Loss conditions are propagated using the standards-compliant AIS signal.

As an SNMP management application, PrismaView gives network managers the ability to monitor and control all Prisma media converters. PrismaView runs standalone on Windows NT/XP/2000, as a standalone Java Application for other operating systems, in conjunction with HP OpenView, as a Web Server running under IIS, or as a Java Web Servlet.

Figure 1.   DS3/E3/STS-1 LineTerm Module

Features

- Switch Selectable Protocol
  - Operates at 45 Mbps (DS3), 34 Mbps (E3) or 52 Mbps (STS-1)
  - Line Terminating function for improved management and fault isolation
- Management
  - Conduct loopback tests, monitor/manage units via GUI-based PrismaView
  - Remote unit supports secure, out-of-band management
  - Diagnostic LEDs (LOS, ER, RAI, PRBS)
- Supports more fiber choices
  - Available for multi-mode or single-mode fiber
  - Single-strand fiber versions
  - CWDM support
  - Supports very long fiber distances
- Eases Troubleshooting
  - Loopback testing modes, plus optional SNMP management and LEDs, assist in diagnosing problems on fiber optic networks
  - Support for Alarm Indication Signals (AIS) for improved fault isolation
  - Supports fiber and coax remote loopback control
  - Internal test-head function for transmitting and detecting PRBS test patterns.
  - LED Line Diagnostics
  - Supports Remote Alarm Indication (RAI)

Troubleshooting is easy with Prisma DS3/E3/STS-1 LineTerm Media Converter products that include a line integrity test feature, 2 modes of operation for loopback testing (fiber loopback, coax loopback), and the Transmit Data Source diagnostic feature, which sends specific patterns of data (transmit all unframed ones; transmit a pattern of zeros, and ones and transmit a Pseudo Random Bit Sequence [PRBS]) to determine problems with the cable. All test modes can be configured remotely via PrismaView SNMP software or locally by manually setting DIP switches on the units. Additionally, Prisma DS3/E3/STS-1 LineTerm Media Converters include a mechanism for removing jitter from transmitted data, and a mechanism for testing line integrity. Prisma DS3/E3/STS-1 LineTerm modular media converters install in any Prisma MediaCenter chassis or in an unmanaged MediaCPE Chassis.* To effectively double fiber capacity, choose a single-strand fiber version Prisma DS3/E3/STS-1 LineTerm Media Converter.

* When installed in a Prisma MediaCPE chassis, Prisma T1/E1/J1 modules are only SNMP-manageable and software configurable if connected to a Prisma DS3/E3/STS-1 LineTerm module installed in a managed Prisma MediaCenter chassis. Some features may not be software configurable on a remote unit.

Product Specifications

Table 1. General Specifications

Feature	Description
General	• Protocol-Selectable — Operates at DS3 (45 Mbps), E3 (34 Mbps) or STS-1 (52 Mbps) protocols • Supports Alarm Indication Signals (AIS) • Ability to manage remote unit from host end • Supports fiber and coax loopback • Jitter attenuation • Selectable line build out • Installs in Prisma MediaCenter chassis* • Supports GUI-Based PrismaView • 50/125 μm or 62.5/125 μm multi-mode fiber • 9/125 μm single-mode fiber • Available for single-strand fiber • Hot-swappable architecture • ST or SC optical connections
Standards Compliance	• ANSI T1.102-1993 • ANSI T1.107-1995 • GR-820-CORE
Regulatory Approvals	• FCC Class A • UL/cUL • CE

Table 2. Physical Specifications

Specification	Value
Connectors	• BNC, and ST or SC • Includes diagnostic LEDs • Includes hot-swappable architecture
Operating Temperature	32 to 122°F (0 to +50°C); 5% to 90% (non-condensing), 0 – 10,000 ft. altitude
Storage Temperature	-13 to +158°F (-25 to +70°C); 5 to 90% (non-condensing)
Shipping Weight	0.30 lbs (0.14 kg)

* For Telco environments, it is not recommended that the Prisma DS3/E3/STS-1 LineTerm converter be installed in a Prisma MediaCPE Chassis. The power source in this chassis is not isolated, and cannot support positive reference ground systems typically used in Telco environments. The MediaCenter 6 & 20 Chassis are suitable alternatives.

Ordering Information

Table 3.   Ordering Information

Prisma DS3/E3/STS-1 Line Term Media Converter	Part Number
Prisma DS3/E3/STS-1 LineTermMC MM1300-SC/UPC, 2 km	4029882
Prisma DS3/E3/STS-1 LineTermMC 1310-SC/UPC, 40 km	4029883
Prisma DS3/E3/STS-1 LineTermMC 1310-SC/UPC, 80 km	4029864
Prisma DS3/E3/STS-1 LineTermMC 1550-SC/UPC, 80 km	4029865
Prisma DS3/E3/STS-1 LineTermMC SS(1310Tx/1550Rx)-SC/UPC, 20 km	4029866
Prisma DS3/E3/STS-1 LineTermMC SS(1550Tx/1310Rx)-SC/UPC, 20 km	4029867
Prisma DS3/E3/STS-1 LineTermMC SS(1310Tx/1550Rx)-SC/UPC, 40 km	4029868
Prisma DS3/E3/STS-1 LineTermMC SS(1550Tx/1310Rx)-SC/UPC, 40 km	4029869
Prisma DS3/E3/STS-1 LineTermMC CWDM1430-SC/UPC, 80 km	4029870
Prisma DS3/E3/STS-1 LineTermMC CWDM1450-SC/UPC, 80 km	4029871
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1470-SC, 80 km	4029872
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1490-SC, 80 km	4029873
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1510-SC, 80 km	4029884
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1530-SC, 80 km	4029885
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1550-SC, 80 km	4029886
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1570-SC, 80 km	4029887
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1590-SC, 80 km	4029888
Prisma DS3/E3/STS-1 LineTermMC CWDM-SM1610-SC, 80 km	4029889