

MD8000 - E1/T1 – 8 Port E1/T1 Line Module

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KEY FUNCTIONS:

- External interface to E1 or T1 user circuits
- Clear Channel Transport
- Transparent with Robust FEC
- Hitless Path Failure Protection

KEY FEATURES:

- 4 Independent Circuits 2x E1 or T1
- RJ45 Connector Interface, balanced
- Interface Impedance: 120 ohm (E1) or 100 ohm (T1)
- Line Coding: AMI or HDB3 (E1) or AMI or B8ZS (T1)
- Bandwidth: 4Mbps (E1) or 3Mbps (T1)

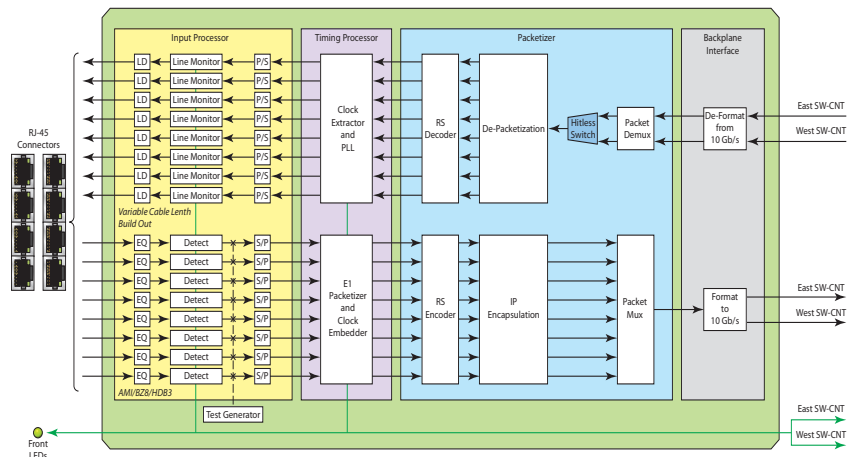
APPLICATIONS:

- LAN Extension
- WAN Access Circuit
- Network Management and Telemetry
- File Transfer

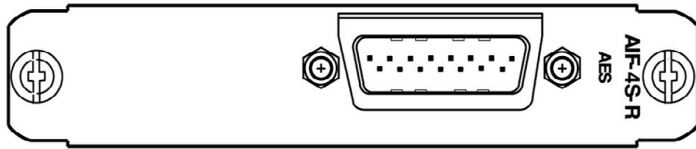
The E1/T1 module supports both SONET and SDH standards and can be configured to provide either local E1 or T1 interfaces. Equipped with 8 local interface ports, the E1/T1 module encapsulates each pair of local transmit interfaces into Ethernet frames and transfers them to the MD8000 Switch Controller (SW-CNT) modules. In the reverse direction, incoming Ethernet streams are transferred from the SW-CNT and sent to the output connectors as E1/T1 signals. To add resiliency to the signal transport, both Forward Error Correction (FEC) and hitless switching are optional for these streams.

The E1/T1 module is a double-width module that occupies two adjacent slots in a MD8000 chassis. The module provides uni-directional control of 4/8 E1/T1 services over the WAN. Two E1/T1 services are encapsulated into a single Ethernet stream in order to minimize delay and maximize bandwidth efficiency. The paired E1/T1 signals must be connected to the same destination.

The front panel of the E1/T1 module features a comprehensive set of LEDs for monitoring the status and health of incoming and outgoing audio streams. Using SNMP, the module is also fully manageable by Media Links' NMS systems.

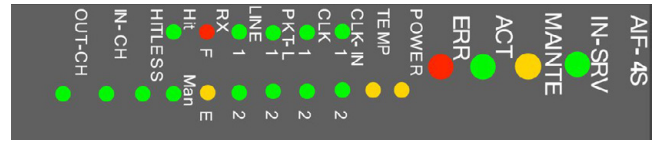


MD8000 - E1/T1 – 8 Port E1/T1 Line Module Block Diagram



NAME	TYPE	DESCRIPTION
Port 1-8	RJ45	E1 or T1 Signal Input/Output

Rear Board Connectors



NAME	CONDITION TO ILLUMINATE
IN-SRV	● Status Monitored
MAINT	● Under Maintenance
ACT	● Normal Operation
ERR	● Board Failure Detected
POWER	● Board Power Voltage Low (Warning)
TEMP	● Board Temperature High (Warning)
CLK-IN1/2	● Unused
CLK1/2	● Unused
PKT-L1/2	Input stream of the selected channel ● 1: Packet input from Line 1 ● 2: Packet input from Line 2
LINE1/2	SWCNT for the selected channel 1: SWCNT #1; 2: SWCNT #2
RX-F/E	● RX-F: Uncorrectable Error Detected ● RX-E: Correctable Error Detected
Hit/Man	● Hit: Hitless Switching mode ● Man: Manual Switching mode
Hitless	● Hitless Switching can be enabled
SYNC/LOS	● SYNC: Signal synchronized ● LOS: Loss of Signal detected
RDI/LOF	● RDI: Remote defect (RDI) detected ● LOF: Loss of Frame detected
P-AIS/AIS	● P-AIS: Path AIS Detected (RDI) detected ● AIS: Alarm Indication Signal detected

Front Panel LEDs

FUNCTIONAL SPECIFICATIONS:

Parameter	E1	T1
Bit Rate	2.048 Mbps +- 130 ppm	1.544 Mbps +- 200 ppm
Signal Format	AMI or HDB3 line coding	AMI or B8ZS line coding
Input	Level	0.5 to 3V peak
	Line Build Out	0 to 199.6m, automatic
	Impedance	120 Ohm +- 5%, balanced
Output	Level	2 to 3V peak
	Pulse Waveform	CCITT (ITU) G.703
	Line Build Out	0 to 199.6m, automatic
	Impedance	120 Ohm +- 5%, balanced
Jitter Tolerance	CCITT (ITU) G.823	Bellcore TR-TSY-000499
Delay	7 ms end to end with or without FCC	7 ms end to end with or without FCC
Bandwidth	4 Mb	3 Mb
Connector	RJ45	RJ45

ORDERING INFORMATION

MODEL	ORDER NUMBER	ORDER CODE
Dual Wide 8 Port Bi-Directional E1 (8 duplex services) - occupies 2 slots	MD801005	E1/T1-8Sch-F
Single Wide 4 Port Bi-Directional E1 (4 duplex services) - occupies 1 slots	MD801006	E1/T1-4Sch-F

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