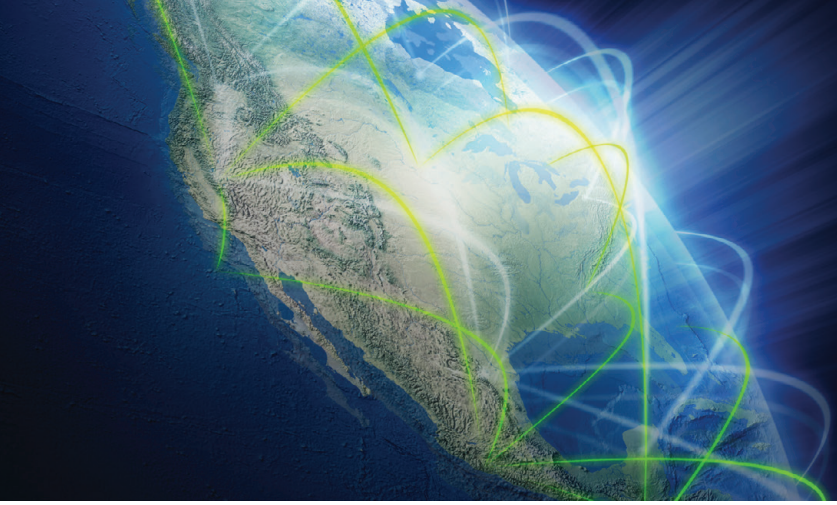


MEDIA LINKS®
Media Defined Networking®

DATASHEET

2GbE, 2 Port 10/100/1000 BaseT Ethernet Line Module

2GbE, 2 Port 10/100/1000 BaseT Ethernet Line Module

The GbE-2ch module accepts one or two 10/100/1000 BaseT signals, provides rate policing and VLAN tagging and transfers them to the MD8000 SW-CNT modules.

KEY FUNCTIONS:

- External interface to 10/100 BaseT user circuits
- Optical (SC connector) or Electrical (RJ-45 connector) Interfaces
- Robust Forward Error Correction (FEC)
- Auto protection switchover <50ms

KEY FEATURES:

- 2 Fully Independent Ethernet Circuits
- Automatic Rate Negotiation
- Two Modes of Operation: Transparent for Multi-point WAN Connections and Port Tagging for Point-to-point Connections with Path Failover Protection
- Input Filtering and Rate Policing to Eliminate Disruptions to Video Traffic

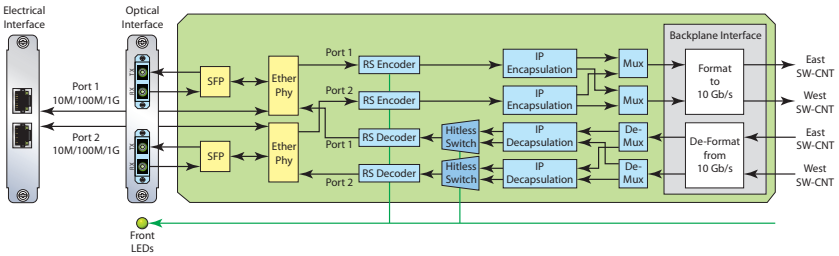
APPLICATIONS:

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

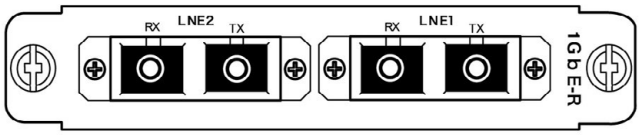
The GbE-2ch module accepts one or two 10/100/1000 BaseT signals, provides rate policing and VLAN tagging and transfers them to the MD8000 SW-CNT modules. In the receive direction, the 2GbE module accepts Ethernet packets transferred from the SW-CNT and provides one or two unique 10/100/1000 BaseT output signals.

Two completely independent bi-directional GbE channels ensure that data on the individual ports is kept separate, permitting operation at full wire speed rates with total isolation. Both ports support Auto-Negotiation.

The GbE-2ch board has two modes of operation; transparent or port tagging mode. Both modes handle packets up to Jumbo frames (up to 9022 bytes in length including headers and FCS). Port tagging is utilized for point-to-point connections with path failover protection. Transparent mode is used for multiple point WAN connections. In addition the GbE-2ch board provides input filtering and rate policing to guarantee that data cannot impact video traffic. Either optical or electrical rear boards can be used for the GbE-2ch line module.

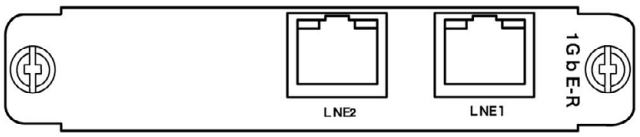


MD8000 - 2GbE, 2 Port 10/100/1000 BaseT Ethernet Line Module Block Diagram



NAME	TYPE	DESCRIPTION
LINE 1 TX	SC	10 Gbps Ethernet Output 1
LINE 1 RX	SC	10 Gbps Ethernet Input 1
LINE 2 TX	SC	10 Gbps Ethernet Output 2
LINE 2 RX	SC	10 Gbps Ethernet Input 2

Optical Rear Board Connectors



NAME	TYPE	DESCRIPTION
LINE 1	RJ45	10 Gbps Ethernet In/Out 1
LINE 2	RJ45	10 Gbps Ethernet In/Out 2

Electrical Rear Board Connectors

FUNCTIONAL SPECIFICATIONS:

Item			10Gb-LX (10km)	10Gb-LH (40km)	10Gb-LZ (80km)
Physical Characteristics	Transport Media		Single mode Fiber		
	No. of core wires used		2 (1 for In and 1 for Out)		
	Connector Type		SC		
Optical Characteristics	Data Rate		1.250 Gbps		
	Wavelength		1310 nm		1550 nm
	Input Level	Max	– 3.0 dBm	– 3.0 dBm	– 3.0 dBm
		Min	– 19.9 dBm	– 20.0 dBm	– 24.0 dBm
	Output Level	Max	- 3.0 dBm	0.0 dBm	0.0 dBm
		Min	– 11.5 dBm	– 4.0 dBm	+5.2 dBm
Ethernet	Transmission Speed		1 Gbps		
	Access Method		CSMA / CD Full-Duplex		
	Frame Structure		IEEE802.3ab		
	Transmission Media		<1000BASE-T> UTP CAT5e or higher		
	Transmission Coding		1000 BaseT: 8B1Q4 10/100 Base		
	Max. Cable Length		100m		

ORDERING INFORMATION

MODEL	ORDER NUMBER	ORDER CODE
2 Port 10/100/1000BT Line Module with Optical Rear Panel, w/o Optics	MD801029	1GEther-2Sch-F(no Opt) Opt interface
2 Port 10/100/1000BT Line Module with Electrical Rear Panel	MD801029	1GEther-2Sch-F(no Opt) Ele interface

OPTICAL PLUG-IN (SFP)

MODEL	ORDER CODE
1 Gb SFP Optical Module, 1310nm, 10km, ROHS, Digital Diagnostics	SFP-1310-1G10
1 Gb SFP Optical Module, 1310nm, 40km, ROHS, Digital Diagnostics	SFP-1310-1G40
1 Gb SFP Optical Module, 1550nm, 80km, ROHS, Digital Diagnostics	SFP-1550-1G80
1 Gb SFP Optical Module, 1550nm, 120km, ROHS, Digital Diagnostics	SFP-1550-1G120

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