

# 8 x 1GbE, 8 Port 10/100/1000 BaseT Ethernet Line Module

### 8 x 1GbE, 8 Port 10/100/1000 BaseT Ethernet Line Module

The 8 x 1GbE module accepts one to eight 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 user circuits
- Optical (LC) or Electrical (RJ-45) interfaces via Rear Panel SFP Cage
- Auto protection switchover

#### KEY FACTS:

- Eight, 1GbE fully independent Ethernet Circuits (Note: a 4 x 1GbE version is also available)
- Automatic Rate Negotiation
- 4 Transport/Operation Modes:
  - Transparent
  - Double Tag
  - Tunneling
  - Tag Exchange (Over Write)
- Input Filtering and Rate Policing to eliminate traffic disruptions

#### APPLICATIONS:

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

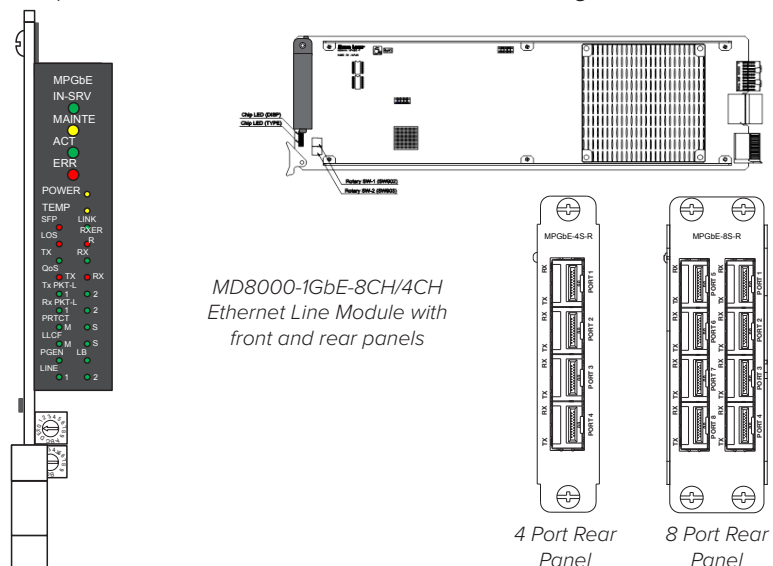
The 8 x 1GbE module accepts one to eight 10/100/1000 BaseT signals, provides rate policing and VLAN tagging and transfers them to the MD8000-SW-CNT modules. In the receive direction, the 8 x 1GbE module accepts Ethernet packets transferred from the SW-CNT and provides one to eight unique 10/100/1000 BaseT output signals.

Eight 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. Auto-Negotiation is supported on all 8 ports. In addition, customer loopback and continuity checking functionality is also provided to facilitate circuit setup and operational troubleshooting.

The 8 x 1GbE module has four encapsulation/decapsulation modes of operation: Transparent, Double Tag, Tunneling and Tag Exchange (Over Write). All modes handle packets up to Jumbo Frames (i.e. maximum of 9022 bytes in length including headers and FCS).

Input filtering and rate policing is provided on each individual Ethernet circuit to guarantee that data bursts cannot disrupt overall traffic flow. Either optical or electrical SFPs can be used on the rear panel.

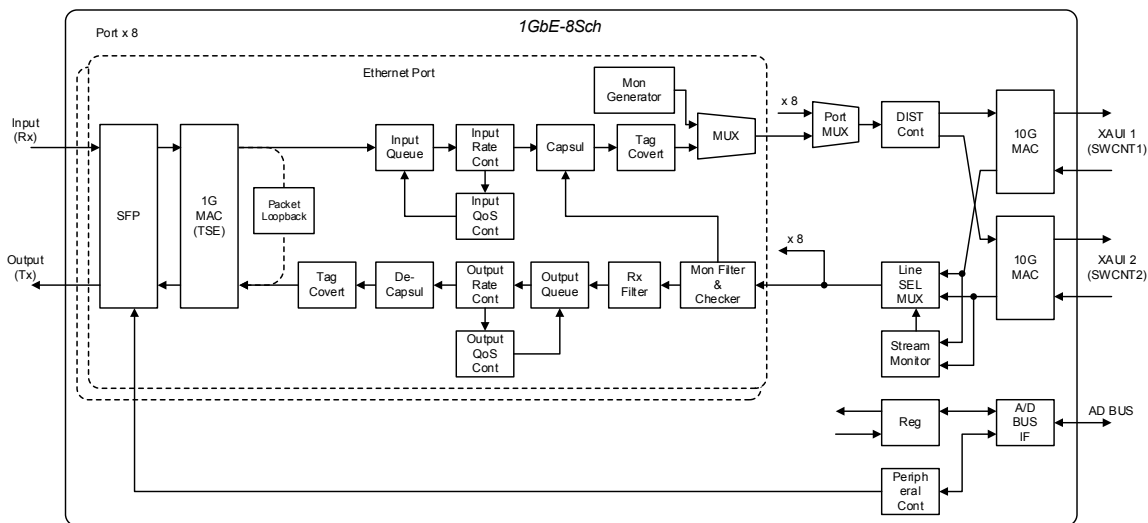
A 4 x 1GbE line module (with rear panel SFP cage) is also available that accepts one to four 10/100/1000 Ethernet BaseT signals.



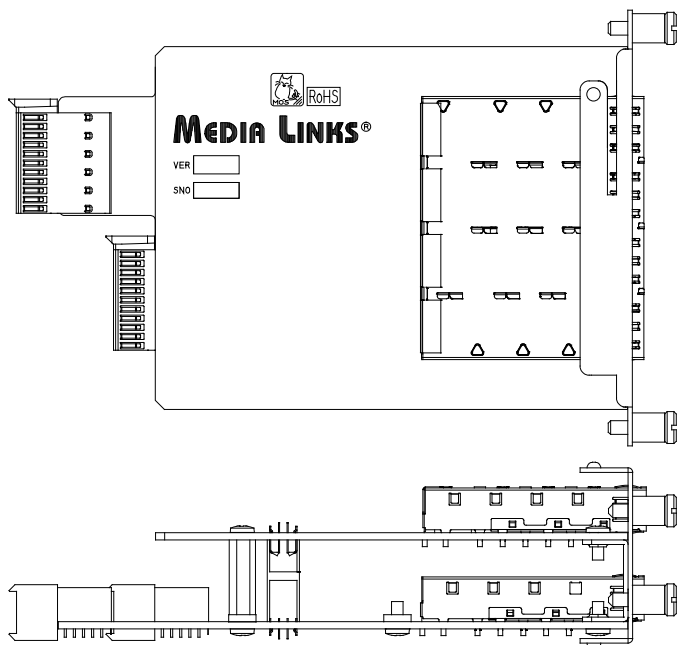
### GENERAL SPECIFICATIONS:

Item	Description	Remarks
Operable chassis	All MD8000 series chassis	MD8000, MD8000EX, or MD8000SX
Board structure	Front + Rear	
External dimensions	Front board: 17 mm (W) * 113 mm (H) * 367 mm (D) Rear board: 41 mm (W) * 96 mm (H) * 126 mm (D) for 8 port version. (For 4 port version, 20.5mm (W) )	Front board occupies a 1-slot width Rear board occupies 2 slots for 8 port version, 1 slot for 4 port version
Weight	1 kg or less	
Power consumption	33.0 W or less	
Operating temperature	0 ~ 40°C (Ambient)	Under the no-condensing humidity condition
Input/output interface	8 X SFP cages for 8 port version, 4 X SFP cages for 4 port version. MSA compliant SFP modules shall be used (SFF-8074i and SFF-8472). (LC connectors for optical SFPs, RJ-45 connectors for electrical SFPs.)	
Supportable interfaces	1000BASE-X (IEEE 802.3z Optical); 1000BASE-T (IEEE 802.3ab Electrical); 100BASE-TX (IEEE 802.3u Electrical); and 10BASE-T (IEEE 802.3i Electrical)	Installed modules shall meet their individual port-parameter settings
Input data rate limitation	Specifiable in 1 Mbps steps	
Output data rate limitation	Specifiable in 1 Mbps steps	
Input priority control	Controllable using VLAN Priority	Strict Priority
Output priority control	Controllable using VLAN Priority	Strict Priority
MTU/MRU	9,022 bytes	
Tagging modes	Transparent, Double Tag, Tunneling, and Tag Exchange (Over Write)	
Transportation support function	Auto Protection and LLCF	
Self-test function	Packet Loopback	
TxRx Filter (VLAN Table)	Up to 32 entries/port (Common to both Tx & Rx)	To be used for Transparent, Double Tag, and Tag Exchange modes
Rx Filter (IP Filter)	2 entries/port (Line-1/Line-2)	To be used for Tunneling mode
Tag Exchange Table	Up to 32 entries/port (Tx/Rx separate)	Usable for Tag Exchange mode
Redundancy modes	All MD8000 modes of operation are supported	Single/Class B/Class C/Class J
Compliant with	CE/CSA, NEBS Level 3	

MD8000- 1GbE-8CH  
Block Diagram



MD8000-1GbE-8CH SFP Cage Rear Panel Details



## ORDERING INFORMATION:

### ETHERNET LINE MODULE COUPLED WITH SFP CAGE REAR PANEL

MODEL	ORDER CODE
8 Port 10/100/1000 Front Line Module with 8 Port SFP Cage Rear Panel	MD8000-1GbE-8CH
4 Port 10/100/1000 Front Line Module with 4 Port SFP Cage Rear Panel	MD8000-1GbE-4CH

### SFP CAGE REAR PANEL PLUG-INS

MODEL	ORDER CODE
1Gb SFP Optical Module, 1310nm, 10km, ROHS, Digital Diagnostics	SFP-1310-1G10
1Gb SFP Optical Module, 1310nm, 40km, ROHS, Digital Diagnostics	SFP-1310-1G40
1Gb SFP Optical Module, 1550nm, 80km, ROHS, Digital Diagnostics	SFP-1550-1G80
1Gb SFP Optical Module, 1550nm, 120km, ROHS, Digital Diagnostics	SFP-1550-1G120
1Gb SFP RJ45 Electrical Module, ROHS, Digital Diagnostics	SFP-RJ45

Note: All SFP modules are compliant to MSA (INF-8074i and SFF-8472) standards.

Media Links (Headquarters)  
Kawasaki Tech Center 18F  
580-16 Horikawa-cho,  
Saiwai-ku, Kawasaki-shi,  
Kanagawa 212-0013 Japan  
Phone: +81 44-589-3440  
query@medialinks.co.jp

Media Links Americas  
431-C Hayden Station Road  
Windsor, CT 06095  
USA  
Phone: +1 860-206-9163  
Fax: +1 860-206-9165  
info@medialinks.com

Media Links Australia  
2-12 Rokeby Street,  
Collingwood, VIC 3066,  
Australia  
Phone: +61 3-9017-0175  
Fax: +61 3-8456-6339  
info@medialinksaustralia.com.au

Media Links EMEA  
Thremhall Park  
Start Hill, Bishop's Stortford,  
Herts CM22 7WE  
United Kingdom  
Phone: +44(0)1279 874371  
emea\_info@medialinks.com

**MEDIA LINKS®**  
Media Defined Networking™

[www.medialinks.com](http://www.medialinks.com)