

MD8000 Series - 10G WAN Trunk Module

10G WAN Trunk Module

The 10G WAN Phy Trunk Module is a single port optical trunk card used to connect a MD8000 series device to a SONET/SDH transport network.

KEY FUNCTIONS:

- External optical interface to transport network
- Internal electrical interface to dual MD8000 SW-CNT modules

KEY FEATURES:

- XFP Optics, single mode fiber support
- SONET SR-1, IR-2, and LR-2 and ITU SDH I-64-1, S-64.2b, and P1L1-2D2 compliant
- Front panel LED status and error indicators, including TX/RX, sync, framing, power, temperature, maintenance mode
- Efficient stream processing with Jumbo Ethernet frame support
- Full QoS support, including seven priority queues, FEC, hitless switching
- Optical rear connector, SC connectors
- Modular Rear Panel I/O
- On-board diagnostics
- Available 10km, 40km and 80km optical reach

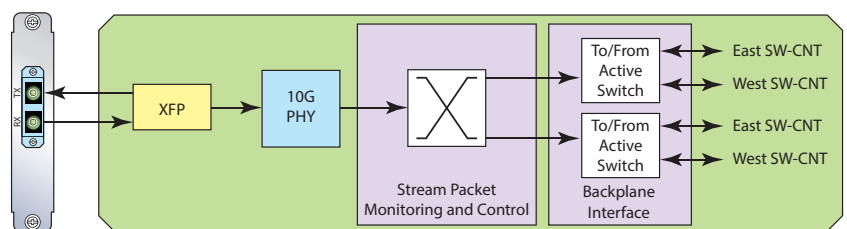
The 10G WAN Phy Trunk Module is a single port optical trunk card used to connect a MD8000 series device to a SONET/SDH transport network. Operating at a line rate of 10 Gb/sec, this module includes an internal 10Gb/sec electrical backplane interface that is used to communicate with the MD8000 chassis' redundant switch controller cards.

Using a midplane chassis architecture, the 10GigE LAN Trunk Module has a separate optical rear board to connect to the transport network. A single-mode fiber XFP module with SC connectors and supporting distances up to 10km, 40km, 80km is used for optical connectivity. Optical selections are compliant with SONET SR-1, IR-2, and LR-2 and ITU SDH I-64-1, S-64.2b, and P1L1-2D2 specifications, respectively.

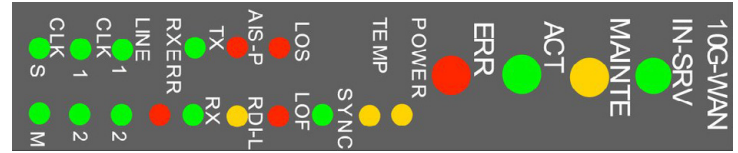
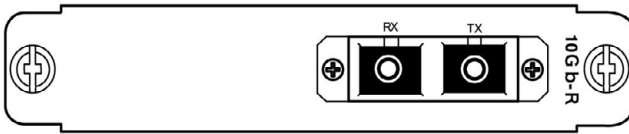
The 10G WAN Phy Trunk Module includes a complete set of status, error, and diagnostic LEDs and counters to simplify connectivity to SONET/SDH networks.



MD8000 - 10G WAN Trunk Module



MD8000 - 10G WAN Trunk Module Block Diagram



NAME	TYPE	DESCRIPTION
TX	SC	10 Gbps Ethernet Output
RX	SC	10 Gbps Ethernet Output

Optical 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)
SYNC	● Signal Synchronized with the circuit
LOS/LOF	● LOS: Loss of Signal Detected ● LOF: Loss of Frame Detected
AIS-P/RDI-L	● AIS-P: Path Alarm Indication Detected ● RDI-L: Remote Line Defect Detected
TX/RX	● TX: Line Transmitting ● RX: Line Receiving
RXERR	● Line Receive Error Detected
LINE1/2	SWCNT for the selected channel: ● 1: SWCNT#1; 2: SWCNT#2
CLK1/2	Clock Source ● 1: From SWCNT #1 ● 2: From SWCNT #2
CLK S/M	Clock Mode ● S: Slave; M: Master

Front Panel LEDs

APPLICATIONS FOR THE MD8000 - 10G WAN Trunk Card

- SONET Circuit/WAN network connectivity
- Carrier Class Media Networks
- Flawless Contribution Video Transport
- Reliable Content Delivery Systems
- Integrated Live, Recorded and File-Based Communications

FUNCTIONAL SPECIFICATIONS:

Parameter		I-64.1 (SR-1) (10 km)	S-64.2b (IR-2) (40 km)	P1L1-2D2 (LR-2) (80 km)	
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	9.95328 Mbps			
	Wavelength	1260 – 1355 nm	1530 – 1565 nm		
	Input Level	Min	≤ - 11.0 dB	≤ - 14.0 dB	≤ - 24.0 dB
		Output Level	Max	- 1.0 dBm	+ 2.0 dBm
	Min		- 6.0 dBm	- 1.0 dBm	0.0 dBm
Power Consumption		17 watts			

ORDERING INFORMATION

MODEL	ORDER NUMBER	ORDER CODE
10Gb WAN-PHY Trunk Module - w/o Optics	MD802604	10GWAN-1Trunk-F(no Opt)+JP

OPTICAL PLUG-IN (XFP)

MODEL	ORDER CODE
10GbE, OC-192, STM-64 XFP Optical Module, 1310 nm, 10 km, ROHS, Digital Diagnostics	XFP-1310-10
10GbE, OC-192, STM-64 XFP Optical Module, 1550 nm, 40 km, ROHS, Digital Diagnostics	XFP-1550-40
10GbE, OC-192, STM-64 XFP Optical Module, 1550 nm, 80 km, ROHS, Digital Diagnostics	XFP-1550-80
10GbE, OC-192, STM-64 XFP Optical Module, DWDM, 80 km XX for ITU Channel Number, ROHS, Digital Diagnostics	XFP-DWDM-80-XX

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

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Media Defined Networking®

www.medialinks.com