



Datasheet

LambdaDriver® - E3/DS3 TDM Muxponder Module (EM2009-E3GM/DSGM)





E3GM/DSGM

Features

- O SFP based GE port
- O Coax E3/DS3 port
- O Detects and clears LOS as per G.775.
- Compliant with jitter transfer template outlined in ITU G.751, G.752, G.755 and GR-499-CORE, 1995 standards.
- Meets ETSI TBR 24 Jitter transfer requirements.
- Compliant with Bellcore GR-499, GR-253 and ANSI T1.102 Specification for transmit pulse
- Meets the Jitter and Wander specifications described in T1.105.03b,ETSI TBR-24, Bellcore
- O GR-253 and GR-499 standards
- O Supports local, remote and digital loop-backs.
- E3/DS3 framing format transparent
- O Support of B3ZS/HDB3 line codes
- SFP Digital Diagnostics monitoring
- Front panel status LEDs

Applications

- Transparent E3/DS3 and Gigabit services over one wavelength
- LAN and PBX extension and distribution

Overview

LambdaDriver® E3GM/DSGM modules use an advanced Time Division Multiplexing (TDM) technology for combining and simultaneously transporting E3/DS3 circuits and one GE service over one Full Duplex fiber optic trunk to various distances. The EM2009-E3GM and the EM2009-DSGM operate respectively with the E3 (34.368 MHz) and the DS3 (44.736 MHz) protocols. An on-board differential receiver provides high noise interference margin and is able to receive data over a distance of 1000 feet (305 m) of cable or with a cable attenuation of up to 12 dB.

Both modules support local, remote and digital loop-backs.

The modules are transparent to framing format and support HDB3 and AMI line codes and interfaces complying with ITU-T G.703/Bellcore GR-499-CORE/ ANSI T1.102_1993, and with ITU G.823, G.824, and GR-499-CORE Jitter Requirements.

The aggregated trunk port is SFP based 1Gbps speed; therefore this module can use regular GE SFPs providing distances of up to 120 km without the need for regeneration. It can even utilize CWDM/DWDM SFPs to allow higher

service aggregation over a single fiber.

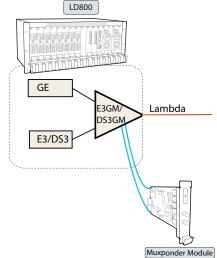
Combined with the LambdaDriver® Element Management Module, full monitoring and configuration capabilities become available locally at a craft terminal via the RS-232 interface and remotely at a TELNET or SNMP station via an Ethernet/Fast Ethernet interface. MRV's MegaVision® Web-based SNMP management application provides remote control reducing the costly need for many in-the-field services.

All LambdaDriver® SFP-based modules fully support the Digital Diagnostics provided by the SFPs per Multi-Source Agreement (SFF-8472), including Optical Transmit Power, Optical Receive Power and Temperature Measurements. The modules are hot-swappable and fit into all LambdaDriver chassis.

The terminal side of the module includes an SFP socket for GE connection and a coax for E3/DS3 connection.

The line code can be selected to be AMI, B8ZS or HDB3. For E3 the factory default is HDB3; for DS3 it is B8ZS.

The line impedance is 75 Ohm for both E3 dual DS3







Front panel per port LEDs are provided:

- E3/DS3 LOS
- GE Link & Activity
- Trunk (SFP based) Link & Activity
- Trunk (fixed WDM based) Link & Laser Temperature

Local and remote loopback commands from management are supported for each port on the module allowing an excellent tool for network maintenance.

Among the typical applications: dedicated LAN and PBX connection over a single fiber between different buildings; use of E3/DS3 circuits for industrial control communication together with IP connection in Ring or Linear OADM configurations.

Technical Specifications			
Physical Specifications			
Connectors	Trunk - SFP, GE-SFP, E3/DS3-coax		
Operating Temperature	-5 to 45° C		
Storage Temperature	-10 to 70°C		
Relative Humidity	85% maximum, non-condensing		
Dimensions (W x H x D)	26.93 mm (1.06 in) x 130.7 mm (5.145 in) x 227.5 mm (8.956 in)		
Weight	0.480 kg (1.05 lb)		
E3/DS3 Electrical Specifications			
2	E3	DS3	
Transmission rate (Mbps)	34368	44736	
Line code	HDB3	AMI or B8ZS	
Line impedance (Ohm)	75	75	
Standard	ITU-T G.703	ANSIT1.102_1993 and Bellcore GR-499-CORE	

9	Product	Description
=	EM2009 - E3GM	E3 and one GE port TDM Multiplexer with SFP receptacles
<u>e</u>	EM2009 - DSGM	DS3 and one GE port TDM Multiplexer with SFP's
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