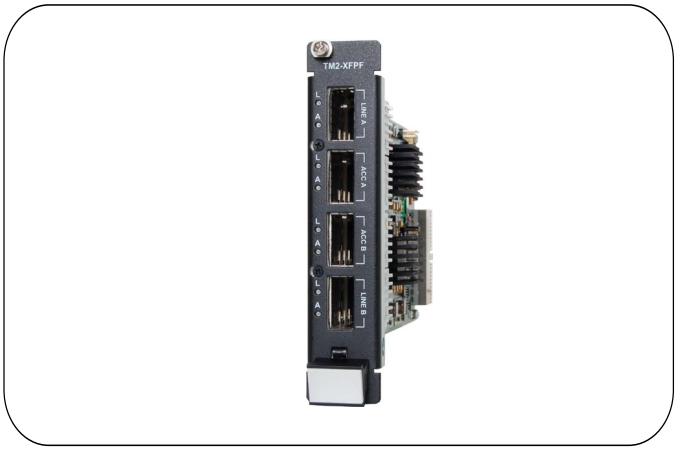
Datasheet

LambdaDriver®–10GE XFP - Dual Transponder Module with FEC (TM2-XFPF)



TM2-XFPF

Features

- 10GE LAN/WAN data rate
- 3R support
- G.709 performance monitoring
- Line and Diagnostics Loop-back tests
- XFP digital diagnostics
- Link Integrity Notification (LIN)
- Hot swappable

Applications

- 10 GE signal regeneration and optical wavelength conversion
- DWDM networks with end-to-end performance monitoring
- Data rate upgrade of existing CWDM/DWDM networks
- Extended optical spans at 10 Gbps performance

Overview

The TM2-XFPF is a single slot module incorporating two independent 10GE XFP transponders, that convert the "gray" wavelength of a terminal equipment interface to ITU-T grid DWDM wavelength enabling its transport via the LambdaDriver® Optical Transport System.

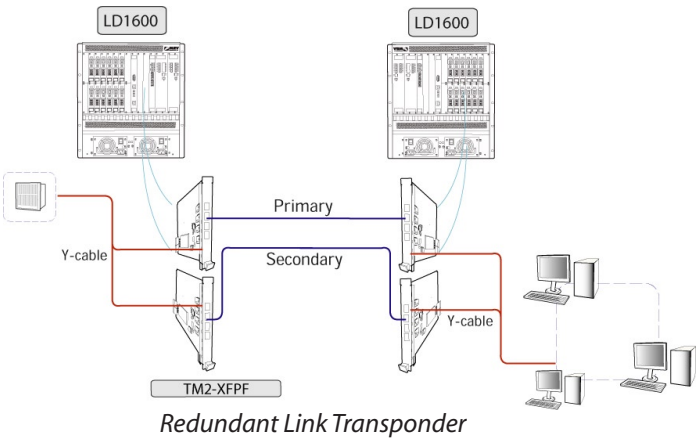
A key feature of each of the channels is the support of the G.709 FEC protocol as well as the Enhanced FEC (EFEC), with superior error correction performance.
The FEC functionality significantly extends the overall distance reach of a 10GE rate link while keeping the expected industry standard BER performance.

The FEC/EFEC mode is user selectable via the system management card.
Performance monitoring is supported for both access and trunk ports, providing the relevant conditions and alarms at each receive side.
Statistics for current 15 minutes interval and up to 32 previous intervals can be viewed.

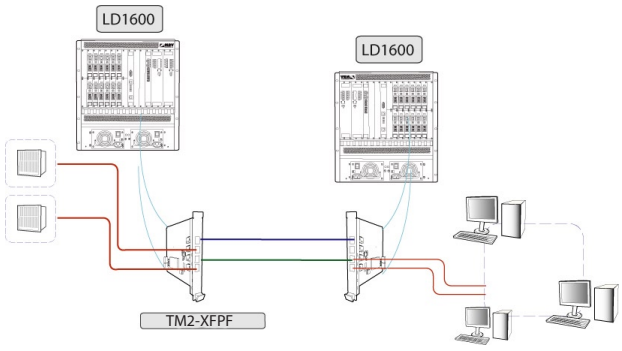
For 10GE traffic performance parameters are defined by RFC2819 (RMON).
Line and Diagnostic Loop-back functionality is supported and provides an essential tool for troubleshooting and maintenance operations in a live network.

The Diagnostics loop-back function checks the integrity of the internal ports circuitry while the Line loop-back is used to check the fiber connections integrity. The Line loop-back and the Diagnostics loop-back are available for both the Access (Client) and trunk ports.

This module is supported by all LambdaDriver chassis with an MNGP model management card.
The Link Integrity Notification (LIN) function allows the terminal equipment to detect the link failure in the path between the two terminal equipment units regardless of the location of the failure.



Redundant Link Transponder



Dual Transponder

The TM2-XFPF transponders also support the Y-Cable based fast switchover protection protocol. In this protection mode two transponders in a LambdaDriver® chassis run a protocol that maintains "operational" and "standby" transponders for a single port of an access device.Two modes of operation are available for this feature:

1. Redundancy between transponders on the same modules
2. Redundancy between transponders on two adjacent modules

The modules are manageable by the LambdaDriver management module either locally by RS232 CLI access or remotely by Telnet, SNMP or GUI management via the MRV MegaVision Pro management platform.

Enviromental	
Operating Temperature	-5 to 45 ºC (23 to 113 ºF)
Storage Temperature	-10 to 70 ºC (14 to 158 ºF)
Relative Humidity	85% max, non-condensing
Dimensions (W x H x D)	26.93 mm (1.06 In); 130.7 (5.145 In); 227mm (8.956 In)
Weight	0.55 Kg (1.21 lb)
Connectors	XFP sockets all ports
Power Consumption	Module: 5.3W XFP: 3.5 W

Technical Specifications	
Data Rate	10GE
G.709 Operational mode	Power Budget for BER< 10^{-12} equals calculated (per used XFP) + 6dB
EFEC Operational mode	Power Budget for BER< 10^{-12} equals calculated (per used XFP) + 8dB
Optical parameters	Per the XFP
LEDs	
P/L n:	Detection of XFP and Link presence or absence at port n

Order Info

Product	Description
TM2-XFPF	XFP Access and Line ports, Dual Transponder with FEC for 10GE.

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