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LambdaDriver® EM800-SRV Supervisory Module

Transparent Integration of Optical Supervisory Channel



EM800-SRV

Overview

The EM800-SRV is a 1-slot module that integrates the management channel and WDM channels on the same physical fiber.

The EM800-SRV Supervisory module is part of the Fiber Driver-LD (LambdaDriver®) product line and can be hosted by the LambdaDriver chassis.

It is based on an all-optics passive technology that provides a simple, yet highly efficient and flexible solution for deploying an Optical Supervisory Channel (OSC) on the same CWDM/DWDM trunk fiber. The OSC is 1310 nm carrier that operates completely

independently WDM channels. This OSC can be used for management of remote LambdaDriver nodes that may not have a local connection to an Ethernet network to which the Network Management Station has access.

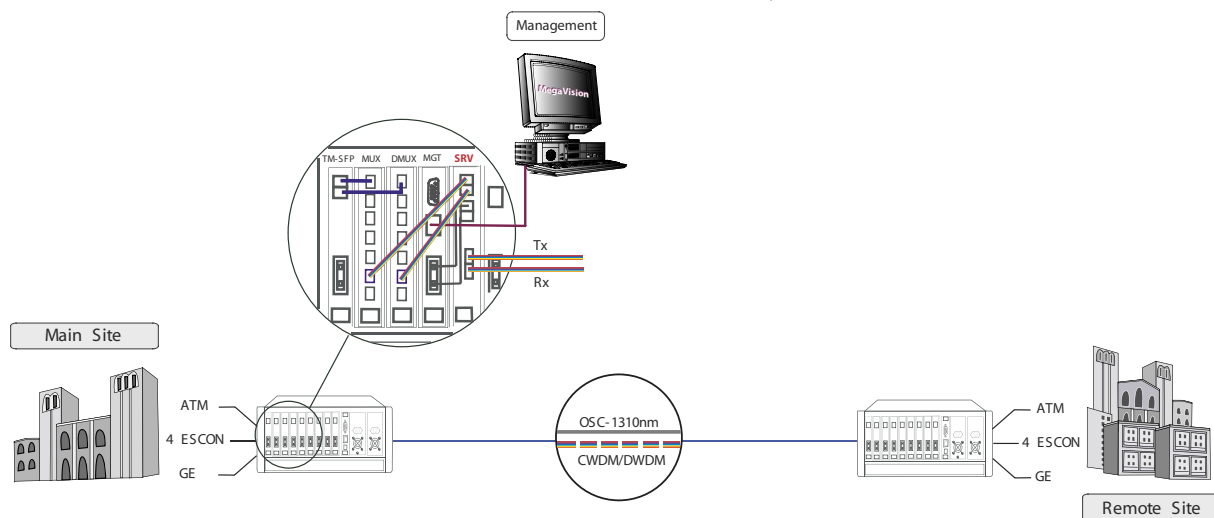
The Supervisory Module also enables carriers and enterprises to mix protocols of any data rate on the 1310 nm service wavelength directly from the access device without affecting the WDM signals on the same fiber. In particular, it can be used with the LDP300 in passive optics-only solutions. Another simple application combines two services running over 1310nm and 1550nm wavelengths on a single fiber pair.

Features

- Operation with singlemode fiber at 1310 nm wavelength
- No electric power grounding or protection needed
- Passive WDM no opto-electric transducers
- Free of EMI/RFI either to or from the Service Module
- Hot-swappable
- The OSC operates transparently with CWDM and DWDM
- Provides transparent OSC integration on WDM trunks
- Transparently combines/splits 1310nm and 1550nm services

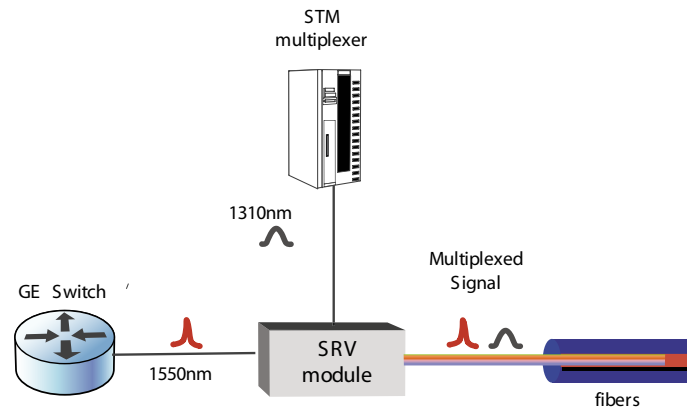
Applications

- Metropolitan networks
- Regional networks
- Short-haul networks
- Liner ADM networks
- Passive WDM Optical solutions
- Disaster-recovery sites connection
- Enterprise Multi Service Connectivity



The figure shows a combination of WDM services and the OSC on the same fiber. The Supervisory Module enables transmission of the WDM and remote management signals from a site which has no local connection to a Ethernet network to the main LambdaDriver site.

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Passive optical multiplexer of two signals over the same fiber.

Optical Multiplexer Specifications

Physical Dimensions	W – 26.93mm (1.06"); H – 130.7mm (5.145"); D – 227.5mm (8.956")	
Optical Connectors	Input (access): MiniSC (MU) Output: – SC	
Operating Wavelength (nm)	1310 +/- 20nm (PASS) / 1550 +/- 80nm	
Insertion Loss (dB)	Typical	0.4 (reflection) 0.6 (pass)
Max	Max	0.6 (reflection) 0.8 (pass)
Isolation (dB)	≥ 15 (reflect channel) ≥ 20 (pass channel) (could reach 40dB if 1550 +/- 40nm)	
Thermal Stability (dB / °C)	≤ 0.005	
Polarization Mode Dispersion (ps)	≤ 0.1	

Order Info	WDM Module	
	EM800-SRV	Service module for LD300, LD400, LD800 and LD1600

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