

## LambdaDriver® 200/400/800 Chassis – High Power CWDM/DWDM Platform



### Features

- Flexible and scalable modular architecture
- Metro, Regional and Long Haul applications
- Modular CWDM / DWDM in one system
- Industry standard AC and DC Power Supplies
- Redundant and Load Sharing Power scheme
- Comprehensive PS status report
- Installed modules shut down/restart via management card
- Extensive management and service monitoring support
- Inventory and HW/SW version report of installed modules

### Overview

The LambdaDriver® Optical Transport System is a CWDM/DWDM Optical networking platform providing multifunctional modular solution for Metro, regional and Medium/Long haul data centric networks.

The LambdaDriver system is capable of carrying all types of services at rates ranging from 8 Mbps up to 10Gbps.

The modular architecture and compact size of the system provides unmatched configuration flexibility and scalability. Topologies such as Point-to-Point, Linear add-drop, Ring and Star are easily implemented.

Several schemes of redundancy such as Y-cabling, 1+1 trunk backup are supported at the service access level and at the trunk level.

All the supported modules are Hot-swappable enabling non-disrupting maintenance and service of the system

Extensive management capability completes the LambdaDriver® Optical Transport System's definition as a high end WDM platform. Remote in-band access is available through any SNMP-enabled Network Management System (NMS). MRV Communications' own MegaVision Pro NMS provides a complete GUI and End-to-End Service Monitoring feature for all LambdaDriver® products.

All chassis are 19-inch rack mountable with modular architecture hosting different types of modules such as Transponders, Mux/ DeMux or OADM modules and being capable of supporting up to 160 DWDM wavelengths.

All modules are hot-swappable and slot independent (except the management modules which reside in pre-defined slots).

All chassis versions except the LD200, support redundant and hot-swappable AC wide range Power supplies and industry standard DC power supplies. AC and DC power supplies can be mixed on the same chassis.

The LD200 has integrated power supplies and can be ordered with one PS (default) or two PS, AC or DC as required.

Additionally, the LD chassis range includes a set of units that provide solutions for designs requiring passive devices only.

**LD800P** is 4.5U high with 1 reserved slot for Management and 11 general slots for "short" size modules (transponders OADMs, Mux, etc.) with high power capacity – up to 220W operational load.

**LD400P** is 2U high with 1 reserved slot for Management and 5 general slots for "short" size modules (transponders, OADMs, Mux, etc.)

**LD400L** is 2U high with 1 reserved slot for Management, 2 general slots for "long" size modules and 1 general slot for "short" size module

**LD200L** is 1U high with 1 reserved slot for Management and 1 general slot for "long" size modules.

**LD200** is 1U high with 1 reserved slot for Management and 2 general slots for "short" size modules.

#### LambdaDriver Modules

- 8, 16 and 40 channels CWDM/DWDM Multiplexers and Demultiplexers
- 1 to 8 channels CWDM/DWDM OADM (Optical Add/Drop Multiplexer)
- ROADM – 40 channels devices
- Optical Amplifiers – EDFA and RAMAN
- Transponders – SFP/XFP interface at the Access ports and Trunk ports.
- TDM Sub-rate Muxponders – FE, GE, ESCON, FC, OCx/STMx
- Protection (1+1) and OSC –Optical Service Channel

(\*\*) For more details see the product specific datasheets



**Enterprise markets:**

- Fast Ethernet 125 Mbps
- Gigabit Ethernet 1.25 Mbps
- Fiber Distributed Data Interface FDDI (125 Mbps)
- 10 Gigabit Ethernet

**Carrier markets:**

- SONET/SDH/ATM OC-1 to OC-192 and STM-1 to STM-64

**Storage markets:**

- . Fibre channel: 133 Mbps, 266 Mbps, 531 Mbps, 1.062 Gbps, 2.125 Gbps, 4.25Gbps, 10 Gbps
- . FICON (IBM Proprietary): 1.0625 Gbps, FICON Express 2.125 Gbps, 4.25Gbps
- . ESCON: 200 Mbps
- . ETR/CLO (IBM Proprietary): 16 Mbps

**Video markets:**

- . SDI "D1 video", 270 Mbps
- . DV6000 2.38 Gbps
- . HDTV 1.483/1.4835 Gbps

**Environmental Specifications**

<b>Operating Temperature</b>	0 to 45°C (23 to 113 °F)
<b>Storage Temperature</b>	-10 to 70°C (14 to 158 °F)
<b>Relative Humidity</b>	85% maximum, non-condensing
<b>Dimensions (W x H x D)</b>	LD800P: 445.5 x 199.2 x 267 mm (17.54 x 7.84 x 10.51 inch) 4.5 U LD400P / LD400L: 443 x 88.01 x 432mm (17.44 x 3.47 x 17.00 inch) 2 U LD200 / LD200L: 440.9 x 43.7 x 342.9 mm (17.36 x 1.72 x 13.50 inch) 1 U
<b>Weight</b>	W/O PS LD800P: 8.6 kg (18.96 lb) LD400P / LD400L: 3.8 kg ( 8.38lb) LD200 / LD200L: 6.85 kg ( 6.28lb) EM800P-PS: 1.3Kg EM400P-PS: 0.95Kg

**Technical Specifications**

<b>Mounting</b>	19-inch rack mount - EIA RS-310C standard
<b>Power Input Voltage</b>	AC: 90 - 240 V, 50 - 60 Hz DC: 36 - 72 V
<b>Power Consumption (Max. Chassis Capacity)</b>	LD400L/P: 200 W LD800P: 220 W LD200: 70 W
<b>Standard Compliance</b>	Safety, EMC; UL - 1950; CSA - 22.2 No.950; FCC part 15 Class A; CE - 89/336/EEC, 73/23/EEC
<b>Capacity</b>	LD400P - 5 x "LD800slots" LD400L - 1 x "LD800slots" + 2 x "LD1600slots" LD800P - 11 x "LD800slots" LD200: - 3 x "LD800slots" LD200L: 1 x "LD800slots" + 1 x "LD1600slots"

Product	Description
<b>LD200</b>	
<b>LD200/ADC</b>	LambdaDriver-200, 3 "short" slots WDM Chassis with single AC power supply
<b>LD200/2AC</b>	LambdaDriver-200, 3 "short" slots WDM Chassis with dual AC power supply
<b>LD200/2DC</b>	LambdaDriver-200, 3 "short" slots WDM Chassis with dual DC power supply (48V DC)
<b>LD200L/ADC</b>	LambdaDriver-200, 1 "long" slot WDM Chassis with single DC power supply (48V DC)
<b>LD200L/2AC</b>	LambdaDriver-200, 1 "long" slot WDM Chassis with dual AC power supply
<b>LD200L/2DC</b>	LambdaDriver-200, 1 "long" slot WDM Chassis with dual DC power supply (48V DC)
<b>LD400 Platform</b>	
<b>LD400L</b>	LambdaDriver-400, 2 "long" and one "short" slots WDM Chassis without power supply (order separately)
<b>LD400P</b>	LambdaDriver-400, 5 "short" slots WDM Chassis without power supply (order separately)
<b>LD800 Platform</b>	
<b>LD800P</b>	LambdaDriver-800, 11 "short" slots WDM Chassis without power supply (order separately)
<b>Passive Chassis</b>	
<b>LDP300</b>	3 slot passive unit for OADM's
<b>LDP300L</b>	One "long" and one "short" slots passive unit for OADM's
<b>LDP100</b>	1 slot passive unit for OADM's
<b>LD400 Power Supplies</b>	
<b>EM400P-PS/AC</b>	AC (90 - 240v) Power Supply for LD400P/L
<b>EM400P-PS/DC</b>	DC (48v) Power Supply for LD400P/L
<b>LD800 Power Supplies</b>	
<b>EM800P-PS/DC</b>	DC (48V) Power Supply for LD800P and LD1600P/1600L
<b>EM800P-PS/AC</b>	AC (90-240V) Power Supply for LD800P and LD1600P/1600L