

## LambdaDriver® 1600 Chassis – High Density, High Power CWDM/DWDM Platform (LD1600 P/L)



LD1600L



### Features

- Flexible and scalable modular architecture
- Metro, Regional and Long Haul applications
- Hot Swappable –modules and Power Supplies
- CWDM and 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 Lambda Driver 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.

The LD1600L and LD1600P 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).

The LD1600L and LD1600P chassis support redundant and hot-swappable industry standard AC wide range and DC power supplies.

Up to 4 Powers Supplies (EM800P-PS/DC or EM800P-PS/AC) can be installed in a chassis to provide a "n+1" scheme redundancy with controlled load sharing. AC and DC power supplies can be mixed on the same chassis.

**LD1600P** is 11.5U high with 2 reserved slots for 2 management cards (main + redundant), 16 "short" size general slots and 6 "long" size general slots for Transponders, OADMs, Mux, OA, etc.

4 front loaded Hot-Swappable Power Supplies provide high resiliency and 3+1 redundancy mode.

**LD1600L** is 11.5U high with 2 reserved slots for 2 management cards (main + redundant), 8 "short" size general slots and 10 "long" size general slots for Transponders, OADMs, Mux, OA, etc.

4 front loaded Hot-Swappable Power Supplies provide high resiliency and 3+1 redundancy mode.

#### Typical LambdaDriver Modules

- 8, 16 and 40 channels CWDM/DWDM Multiplexers and Demultiplexers
- 1 to 8 channels CWDM/DWDM OADM (Optical Add/Drop Multiplexer)
- ROADM – 2 degree & multi-degree
- 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, E1/T1, E3/D3, RS-530

**Storage markets:**

- . Fibre channel: 133 Mbps, 266 Mbps, 531 Mbps, 1.062 Gbps, 2.125 Gbps, 4.25Gbps, 8.5Gbps, 10Gbps
- . 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
<b>Storage Temperature</b>	-10 to 70°C
<b>Relative Humidity</b>	85% maximum, non-condensing
<b>Dimensions (W x H x D)</b>	LD1600P/L: Height: 11.5 U Size: 445.5 x 510.4 x 299 mm (17.54x 20.09 x 11.77 inch)
<b>Weight</b>	LD1600P: 18.700 kg (41.23lb) LD1600L: 18.0 kg (39.68 lb) w/o PS EM800P - PS: 1.3Kg

**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>	LD1600P/L: 550W
<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>	LD1600 P: 16 x "LD800 slots" + 6 x "LD1600 Slots" LD1600 L: 8 x "LD800 slots" + 10 x "LD1600 Slots"

<b>Ordering Info</b>	<b>Product</b>	<b>Description</b>
	<b>LD1600P</b>	Lambda Driver-1600, 16 short and 6 long slots, High Power WDM Chassis (EM800P power supplies should be ordered separately).
	<b>LD1600L</b>	Lambda Driver-1600, 8 short and 10 long slots, High Power WDM Chassis (EM800P power supplies should be ordered separately).
	<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