

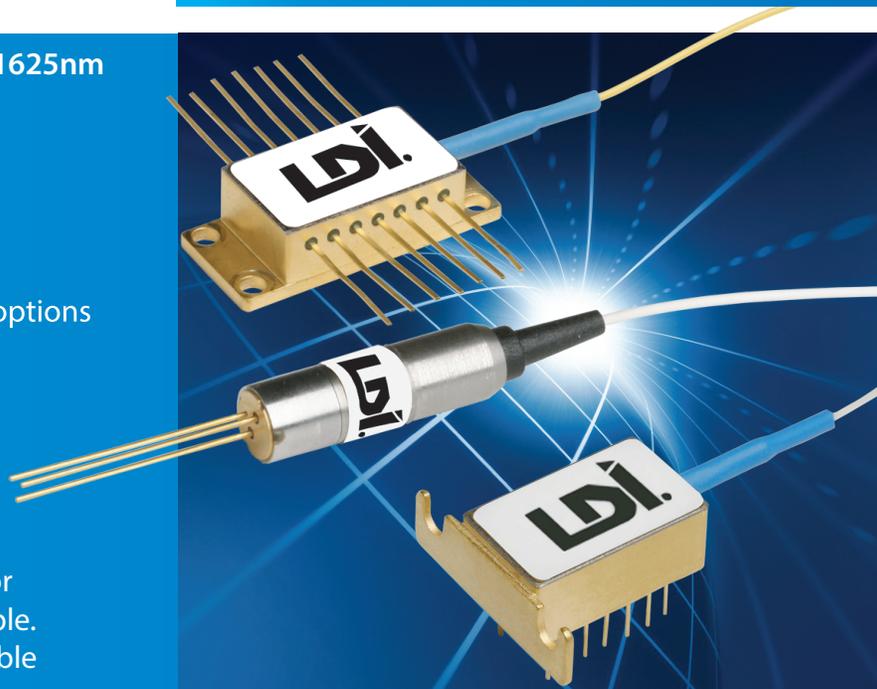
## LCW/SCW Series: Instrument Laser Modules Pulsed and CW Applications

ISO 9001:2008 Certified

- Wavelengths: 1310nm, 1550nm, 1625nm and 1650nm
- High Peak Optical Power (Pulsed)  
Up to 200mW @ 1000mA
- Optical Power (CW) Up to 75 mW
- RoHS Compliant
- Singlemode and multimode fiber options
- Typical Applications\* :

OTDR Instruments  
 Spectroscopy  
 Photon Counting  
 Optical and LOS Sensors  
 Talk Sets

\*Options: Temperature controlled or uncooled versions available.  
 Custom packaging available



OSI Laser Diode, Inc.'s High Power SMF couple laser modules are designed to meet the performance demands of the optical test equipment marketplace. The high peak optical power LCW / SCW Series lasers serve 1310nm through 1650nm wavelengths and are available in fully hermetic laser welded packages. These packaged lasers can include both TEC and temperature sensing thermistors and back facet monitors for superior wavelength stability over a wide temperature range.

Characteristics w/TEC:  $T_a = -30^\circ \text{C}$  to  $70^\circ \text{C}$ ;  $T_{id} = +25^\circ \text{C}$  Conditions:  $P_w = 10 \mu\text{s}$ ;  $D/C = 1\%$   
 w/o TEC:  $T_a = +25^\circ \text{C}$  Fiber: SMF 28e<sup>®</sup> or MMF GI 50; 1 meter min. fiber length for unconnectorized parts  
 1 meter +/- 0.1 for connectorized pigtails

PARAMETERS	Symbol	1330 Series			1530 Series			1630 Series			1650 Series			Units
		Min	Typ	Max										
Optical Power (Fiber)	$P_o$	120			100			100			100			mW
Optical Power (TO56)	$P_o$	350			300			250			225			mW
Optical Power (Fiber CW)*	$P_o$	75			60			60			55			mW
Forward Current	$I_f$			1000			1000			1000			1000	mA
Threshold Current	$I_{th}$		30			35			45			45		mA
Forward Voltage	$V_f$		2			2			2			2		V
Center Wavelength	$\lambda$	1290	1310	1330	1530	1550	1570	1615	1625	1635	1640	1650	1665	nm
Spectral Width	$\Delta\lambda$			8			10			12			12	nm
Cooling Capacity**	$\Delta T$	45			45			45			45			$^\circ\text{C}$
TEC Voltage	$V_{tec}$		1.2	1.6		1.2	1.6		1.2	1.6		1.2	1.6	V
TEC Current**	$I_{tec}$		600	800		600	800		600	800		600	800	mA
Operating Temperature Range	$T_{op}$	-30		70	-30		70	-30		70	-30		70	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40		85	-40		85	-40		85	-40		85	$^\circ\text{C}$

\*400mA DC

\*\*Cooled Modules Only

Reliability data available upon request

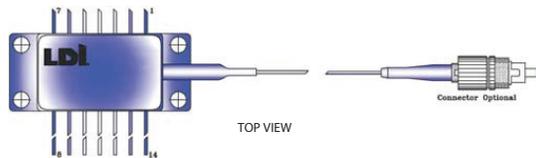
# 14-pin Butterfly Package and 14 - pin DIP Package F Series and G Series

F Series (Floating Thermistor)		
Pin	Function	
1	cooler anode (+)	*
2,3,4,6,7,8,13	no connection	
5	laser anode (+), ground	
9	laser cathode (-)	
10	ground	
11,12	thermistor	*
14	cooler cathode (-)	*

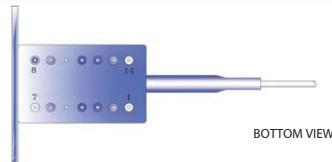
G Series (Ground Thermistor)		
Pin	Function	
1	cooler anode (+)	*
2,3,4,6,7,8,12,13	no connection	
5	laser anode (+), ground	
9	laser cathode (-)	
10	ground, thermistor	
11	thermistor	*
14	cooler cathode (-)	*

\*Cooled Package Only. No connection for uncooled pkg.

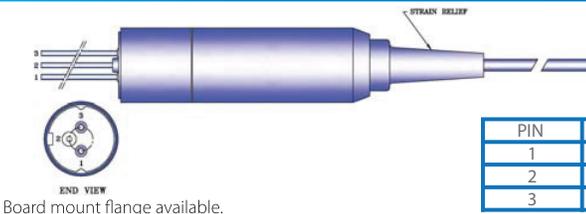
## 14-pin Butterfly Package



## 14-Pin DIP Package



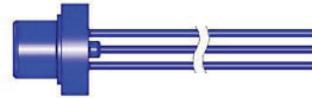
## Coaxial Package



Board mount flange available.

PIN	Function
1	Laser cathode (-)
2	Laser anode (+)/ Ground
3	No Connection

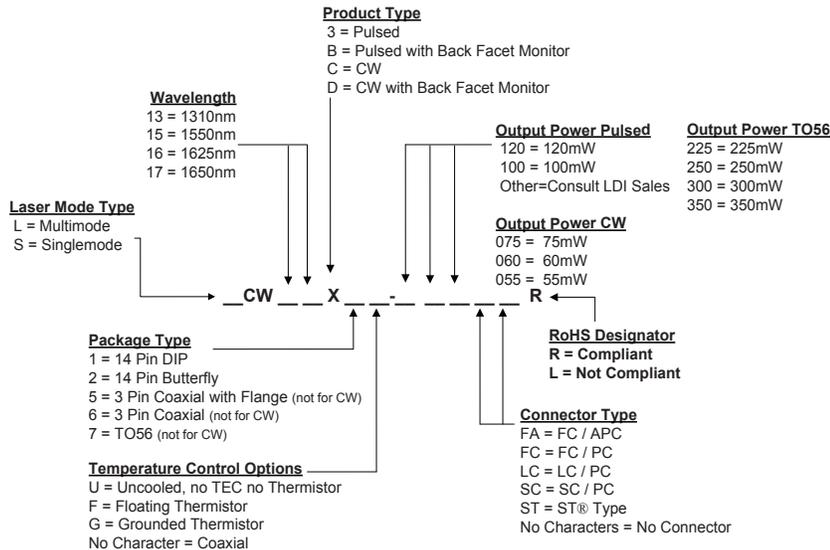
## TO56 Package



Detailed package drawings are available on LDI website. Not recommended for CW products.

## Part Numbering Diagram

When ordering, refer to the numbering diagram below.



Products can be ordered directly from OSI Laser Diode, Inc. or its representatives.

For a complete listing of representatives, visit our website at

[www.laserdiode.com](http://www.laserdiode.com)



### Personal Hazard and Handling Precautions:

Handle optical fiber with normal care, avoiding stretch, tension, twist, kink or bend abuse. ESD precautions apply. Normal aversion reactions will not protect from radiation hazards to the eye associated with devices of this kind. 1310nm lasers are IEC Class 3R; higher wavelengths are Class 1 lasers when operated at rated conditions. IEC 3B for all CW models.

### Notice:

OSI Laser Diode, Inc. reserves the right to make changes to the products or information contained herein without notice. No liability is assumed as a result of their use or application.

### Warranty:

Please refer to your product purchase agreement for complete details or check with your OSI Laser Diode sales representative.