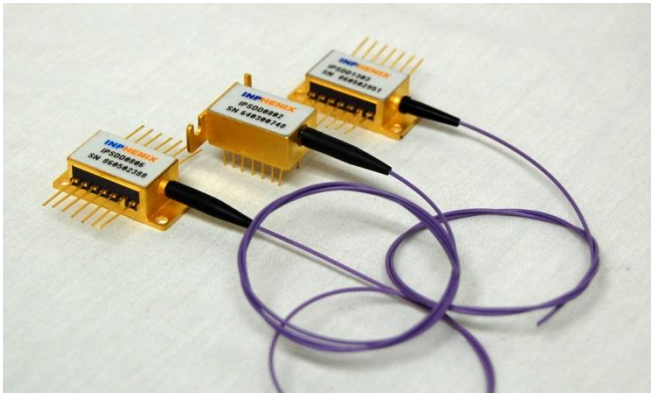
INPHENIX

Product Specification, Revision 1.51

Super-Luminescent Light Emitting Diode Device

IPSDD1405 (1490nm)



Features

- · Wide Optical Bandwidth
- · Very Low Spectral Ripple
- · High Output Power in SM/or PM Fiber

Applications

- · Broadband Light Source for Insertion Loss Test
- · Fiber Optic Sensor (FOS) System
- · Biomedical Imaging Device
- · Optical Coherence Tomography (OCT) for Industries

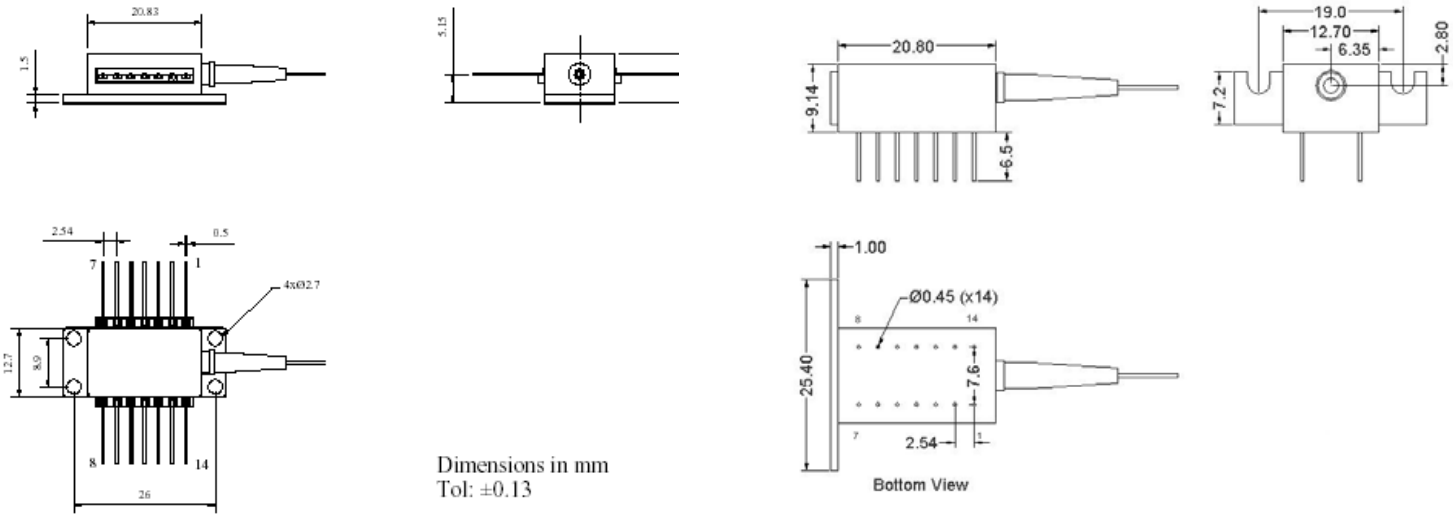
Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Central Wavelength	λ_c	1460	1490	1520	nm
3dB Bandwidth	$\Delta\lambda_{3dB}$	60	65	-	nm
Output Power in SM Fiber	P_o	15	18	-	mW
Spectral Modulation Depth$_{p-p}$	Δ	-	-	1.00	dB
Operating Current	I_F	-	500	600	mA
Back Facet Monitor	Available upon request				

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit
Operating Temperature	– 20	70	°C
Storage Temperature	– 40	85	°C
TEC Drive Current	-	1.5	A
TEC Drive Voltage	-	3.6	V
Maximum Current	700		mA
Thermistor Resistance	10kΩ @ 25°C		
SLD Chip Temperature Setting	25°C		
Fiber Type	SMF/PMF/MMF		
Fiber Jacket	250µm tight buffer with 900µm loose tube		
Package	14-pin DIL/14-pin BUT/8-pin BUT		
Lead Solder Temperature	260°C for 10 Seconds		

Package Dimensions



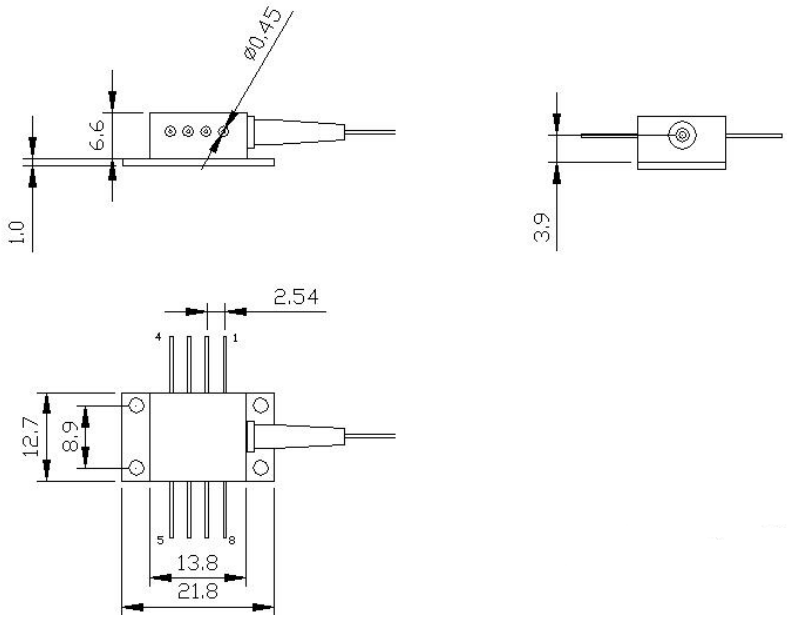
14-Pin BUT Package

14-Pin DIL Package

Pin Definition

14-pin BUT package				14-pin DIL package			
Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	TEC (+)	8	NC	1	TEC (+)	8	NC
2	Thermistor	9	NC	2	NC	9	SLD (-)
3	NC	10	SLD (+)	3	NC	10	Case
4	NC	11	SLD (-)	4	NC	11	Thermistor
5	Thermistor	12	NC	5	SLD (+)	12	Thermistor
6	NC	13	Case	6	NC	13	NC
7	NC	14	TEC (-)	7	NC	14	TEC (-)

- If the SLD is ordered with a Back Facet Monitor, Pin 7 is PD-Cathode and Pin 8 is PD+Anode

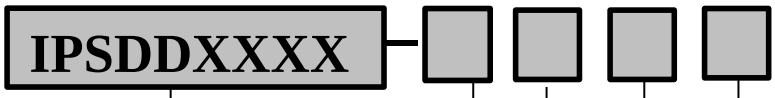


8-Pin BUT Package

Pin Definition

8-pin BUT package	
Pin	Function
1	TEC (+)
2	NC
3	NC
4	SLED (+)
5	SLED (-)
6	Thermistor
7	Thermistor
8	TEC (-)

Part Numbering System



Model:
IPSDDXXXX: SLD Device

Package:
1: 14-pin DIL
2: 8-pin Butterfly
3: 14-pin Butterfly

Fiber Type:
1: SM Fiber
2: PM Fiber
3: MM Fiber

Jacket Type:
1: 900µm
2: 250µm tight buffer

Connector Type:
0: No Connector
3: FC/APC
4: FC/UPC
7: SC/APC
8: SC/UPC

Back Facet Monitor:
Available upon request

Example: IPSDD0805-1224: 850nm SLD in 14-pin DIL with 250µm tight buffered PM Fiber with FC/UPC connectors

Corporate Office
250 North Mines Rd
Livermore, CA 94551
Tel: 925.606.8809
Fax: 925.606.8810
www.inphenix.com
sales@inphenix.com