

# Super-Luminescent Light Emitting Diode Device

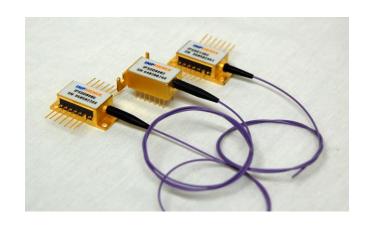
# IPSDD1401 (1410nm)

#### **Features**

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

# **Applications**

- Broadband Light Source for Insertion Loss Test
- Distributed Fiber Optic Sensor (FOS)
- Biomedical Imaging Device
- OCT Diagnostic System



# **Device Specifications**

Parameter	Symbol	Min.	Тур.	Max.	Unit
Central Wavelength	$\lambda_{\mathrm{c}}$	1390	1410	1430	nm
3dB Bandwidth	$\Delta \lambda_{3  ext{dB}}$	45	50	-	nm
Output Power in SM Fiber	Po	8	10	-	mW
Spectral Modulation Depth <sub>p-p</sub>	Δ	-	0.15	0.5	dB
Operating Current	$I_F$	-	300	400	mA
Back Facet Monitor	Available upon request				

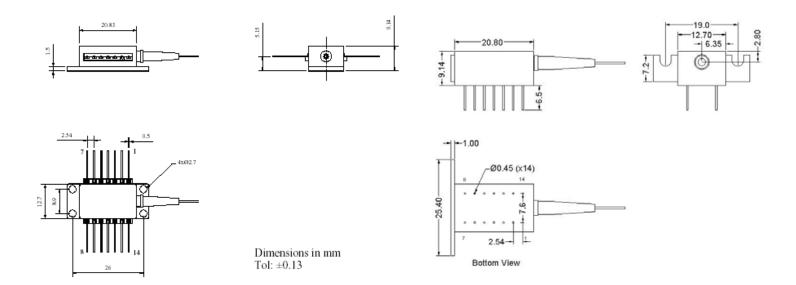
# **Absolute Maximum Ratings**

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	500		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			

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# **Package Dimensions**



14-Pin BUT Package

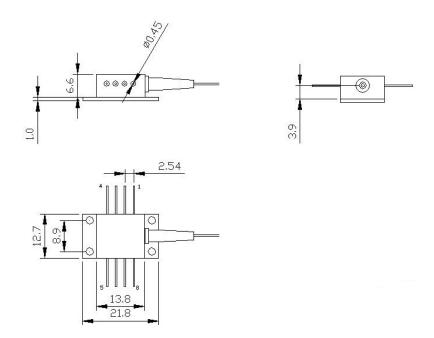
14-Pin DIL Package

# **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

# **INPHENIX**



8-Pin BUT Package

# **Pin Definition**

8-pin BUT package					
Function					
TEC (+)					
NC					
NC					
SLED (+)					
SLED (-)					
Thermistor					
Thermistor					
TEC (-)					



# **Part Numbering System**

	IPSDDXXXX -	
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**

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