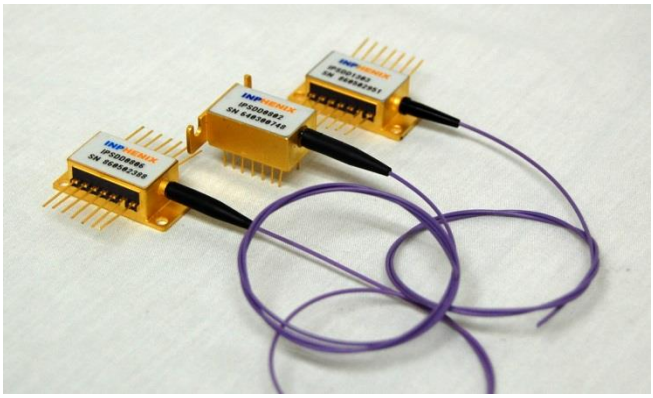
INPHENIX

Super-Luminescent Light Emitting Diode Device (Extra Wide Bandwidth)

IPSDD08XX (-I/-II/-III/-IV/-V)

Features

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



Applications

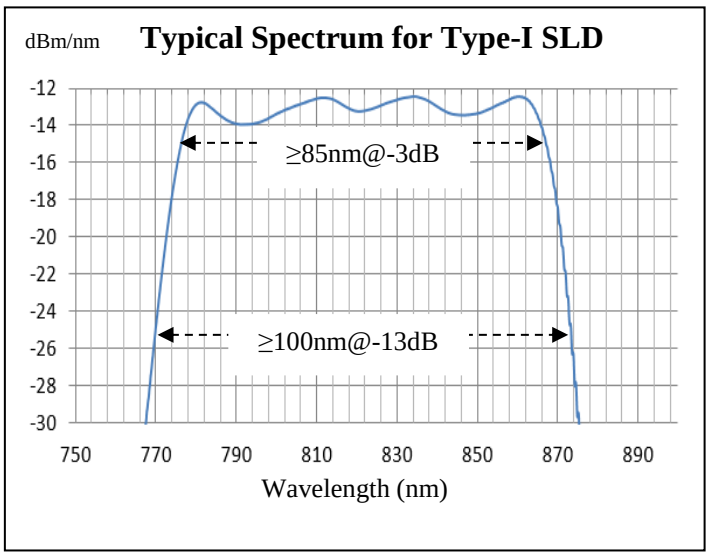
- Broadband Light Source
- Biomedical Imaging Device
- OCT Diagnostic System

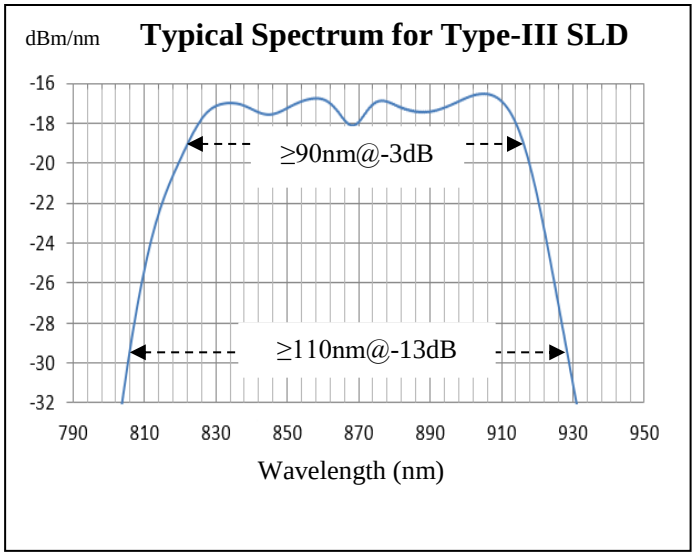
Device Specifications

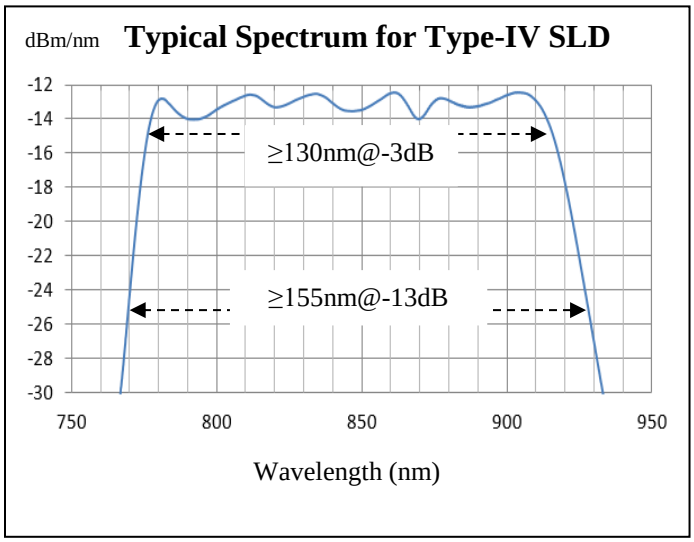
Parameter	Symbol	I	II	III	IV	V	Unit
Central Wavelength @ -3dB	λ_c	820±10	840±10	870±10	850±10	830±10	nm
-3dB Bandwidth	$\Delta\lambda_{c\text{-}3dB}$	≥85	≥75	≥90	≥130	≥150	nm
-13dB Bandwidth	$\Delta\lambda_{c\text{-}13dB}$	≥100	≥95	≥110	≥155	≥190	nm
Output Power in SM Fiber	P_o	≥7.5	≥10	≥10	≥12	≥12	mW
Spectral Modulation Depth (Ripple)	Δ	0.15	0.15	0.15	0.15	0.15	dB
Spectrum Flatness	SF	≤2.5	≤2.5	≤2.5	≤3.0	≤4.0	dB
Back Facet Monitor	I_{MON}	Available as required					

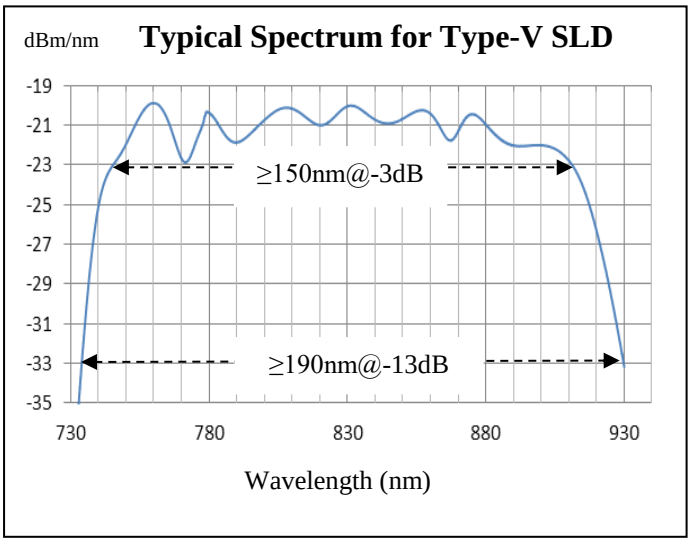
Absolute Maximum Ratings

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	250	600	mA
Thermistor Resistance	10kΩ @ 25°C		
SLD Chip Temperature Setting	25°C		
Fiber Type	SMF		
Fiber Jacket	250μm tight buffer with 900μm loose tube		
Package	14-pin BUT		



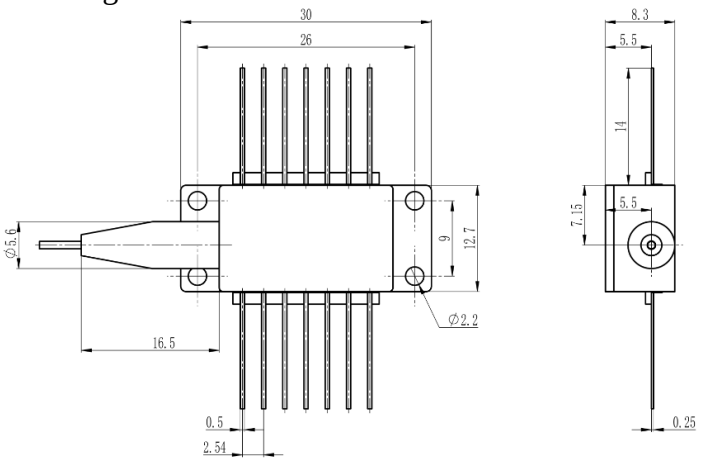






Package Size:

Unit: mm



Pin Allocations

14-Pin BUT SLD Pin Functions			
Pin	Functions	Pin	Functions
1	TEC (+)	14	TEC (-)
2	PD Anode (+) *	13	SLD4 Cathode (-)
3	PD Cathode (-) *	12	SLD4 Anode (+)
4	Thermistor (+)	11	SLD3 Cathode (-)
5	Thermistor (-)	10	SLD3 Anode (+)
6	SLD1 Anode (+)	9	SLD2 Cathode (-)
7	SLD1 Cathode (-)	8	SLD2 Anode (+)

* NC without PD