

INPHENIX

Super-Luminescent Light Emitting Diode Device

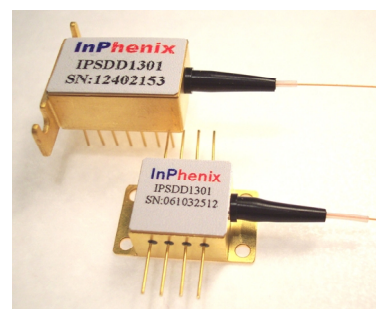
IPSDD130X/IPSDD150X (1310nm/1550nm)

Features

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

Applications

- Chromatic Mode Dispersion Measurement
- Broadband Light Source
- Fiber Optic Sensor (FOS)
- Biomedical Imaging Device
- Optical Coherence Tomography (OCT)
- Clinical Healing Equipment



IPSDD1301 FOS-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	40	45		nm
Output Power ex SMF	P_o	0.5	1.0		mW
Spectral Ripple	Δ		2.3	4.6	%
			0.1	0.2	dB
Operating Current	I_F			150	mA

IPSDD1302 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	40	45		nm
Output Power ex SMF	P_o	20			mW
Spectral Ripple	Δ		4.6	11.5	%
			0.2	0.5	dB
Operating Current	I_F			450	mA

INPHENIX

IPSDD1303 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	50	55		nm
Output Power ex SMF	P_o	5	7		mW
Spectral Ripple	Δ		4.6	6.91	%
			0.2	0.3	dB
Operating Current	I_F			400	mA

IPSDD1304 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	50	55		nm
Output Power ex SMF	P_o	18	20		mW
Spectral Ripple	Δ		4.6	11.5	%
			0.2	0.5	dB
Operating Current	I_F		450		mA

IPSDD1305 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	55			nm
Output Power ex SMF	P_o	20			mW
Spectral Ripple	Δ		4.6	11.5	%
			0.2	0.5	dB
Operating Current	I_F		-	600	mA

IPSDD1306 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	65	70		nm
Output Power ex SMF	P_o	18			mW
Spectral Ripple	Δ		4.6	11.5	%
			0.2	0.5	dB
Operating Current	I_F		-	600	mA

IPSDD1307 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1280		1360	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	75	80		nm
Output Power ex SMF	P_o	15			mW
Spectral Ripple	Δ		4.6	11.5	%
			0.2	0.5	dB
Operating Current	I_F		-	600	mA

All information contained herein is believed to be accurate and is subject to change without notification. No responsibility is assumed. Please contact InPhenix for more information. InPhenix and the InPhenix logo are trademarks of InPhenix Inc.. All rights are reserved.

INPHENIX

IPSDD1501 FOS-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1520		1590	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	50	55		nm
Output Power ex SMF	P_o	0.3	0.5		mW
Spectral Ripple	Δ		2.3	4.6	%
			0.1	0.2	dB
Operating Current	I_F			150	mA

IPSDD1502 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1520		1590	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	50	55		nm
Output Power ex SMF	P_o	4	5		mW
Spectral Ripple	Δ		4.6	6.91	%
			0.2	0.3	dB
Operating Current	I_F			300	mA

IPSDD1503 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1520		1590	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	55	60		nm
Output Power ex SMF	P_o	2	3		mW
Spectral Ripple	Δ		4.6	6.91	%
			0.2	0.3	dB
Operating Current	I_F			250	mA

IPSDD1504 OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	1535		1575	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$	55	60		nm
Output Power ex SMF	P_o	8	10		mW
Spectral Ripple	Δ		4.6	6.91	%
			0.2	0.3	dB
Operating Current	I_F			450	mA

Absolute Maximum Ratings

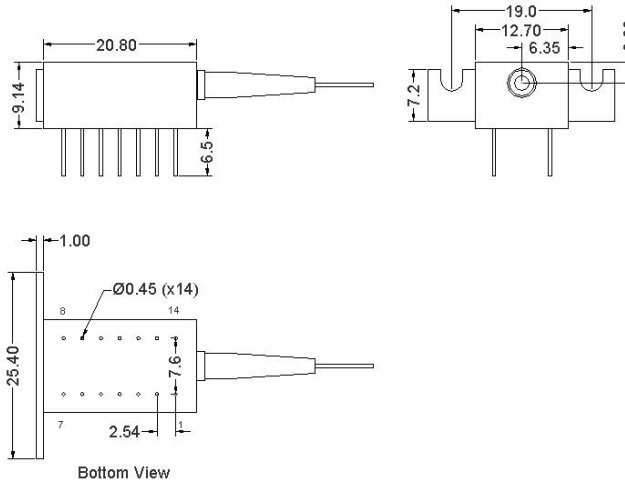
Parameter	Min.	Max.	Unit
Operating Temperature	-20	70	°C
Storage Temperature	-40	85	°C
TEC Drive Current		1.5	A
TEC Drive Voltage		3.6	V
Thermistor Resistance	10 k Ω @ 25 °C		

All information contained herein is believed to be accurate and is subject to change without notification. No responsibility is assumed. Please contact InPhenix for more information. InPhenix and the InPhenix logo are trademarks of InPhenix Inc.. All rights are reserved.

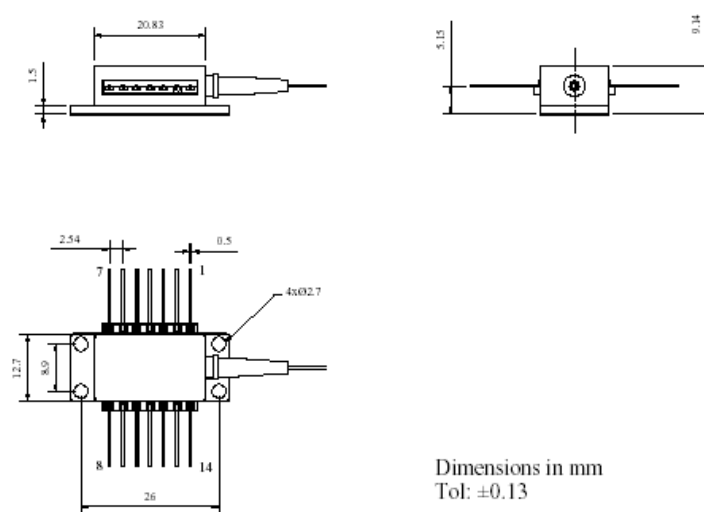
INPHENIX

SLED Chip Temperature Setting	25 °C
Fiber Type	SMF/PMF
Fiber Jacket	900 μm or 250 μm tight buffer /400 μm tight buffer
Package	14-pin DIL/14-pin BUT/8-pin BUT

Package Dimensions

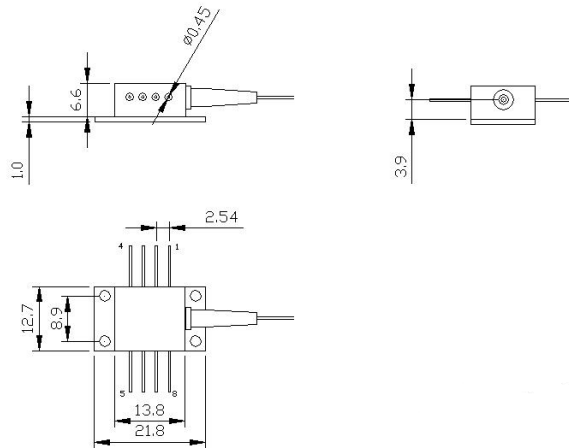


14-Pin DIL Package



14-Pin BUT Package

INPHENIX



8-Pin BUT Package

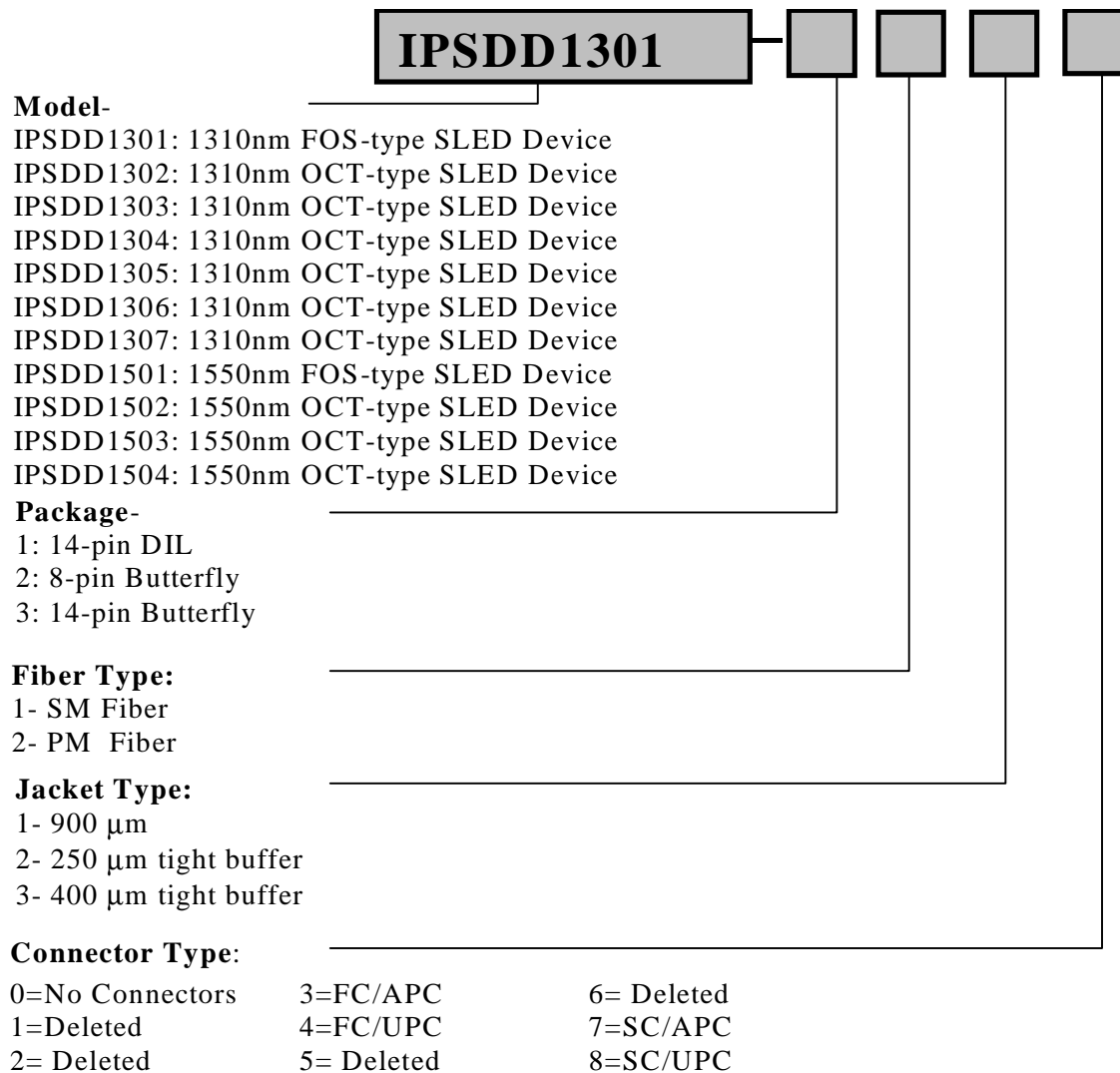
Pin Definition

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

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

INPHENIX

Part Numbering System



Example: IPSDD1301-1224: 1310 nm FOS-type SLED in 14-pin DIL with 250 μ m 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