

SLED Broadband Source

Superluminescent light emitting diode (SLED) broadband source used in fiber optic sensor such optical test instrument and optical coherence tomography. It incorporates a high precision controller for high output level and stability of the superluminescent diodes output. Our product has temperature controller and a built-in CW current driver .

Features

- Highly stable power output and active power control
- Fiber pigtail output with FC/APC connector
- Integrated optical isolator
- Single +5V power supply
- Built-in current driver and temperature controller
- High wall-plug efficiency

Applications

- Optical Test Instrument
- Fiber Optic Sensors
- Fiber Optic Communications
- Optical Coherence Tomography
- Biomedical Imaging Device
- Clinical Healing Equipment

Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Input Power Supply	VS		4.7	5	5.5	V
Input Current	IS				2	A
Total Power consumption	PS				10	W
Power output stability Full temperature -40~60	ΔP		1		2	%
Storage Temperature	T _{STG}		-40		65	°C
Storage Humidity	-		5		75	%RH

Analog Output Monitor

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Pin 6 Voltage	V _{OUT}	R _X = infinite	0		2.5	V
Output Impedance	R _{OUT}			150		Ω
Source Current	I _{OUT}	V _{OUT} = 2.5V			4	mA

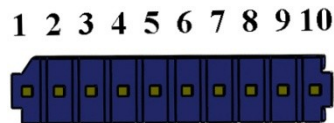
Analog Input Control

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Pin 9 Voltage	P _{SET}		0.3		2.5	V
Input Impedance	R _{IN}				1000	Ω
Sink Current	I _{IN}	V _{IN} = 2.5V			2.5	mA

Optical Parameter

Parameter	Symbol	Min	Typ	Max	Unit
Power in PMF	P _o	10			mW
Central wavelength	λ	1530	1550	1570	nm
Bandwidth	B _{FWHM}	35			nm
Spectrum modulation	R		0.2	0.4	dB
Polarization extinction ratio	PER	15			

Pin Assignment And Function

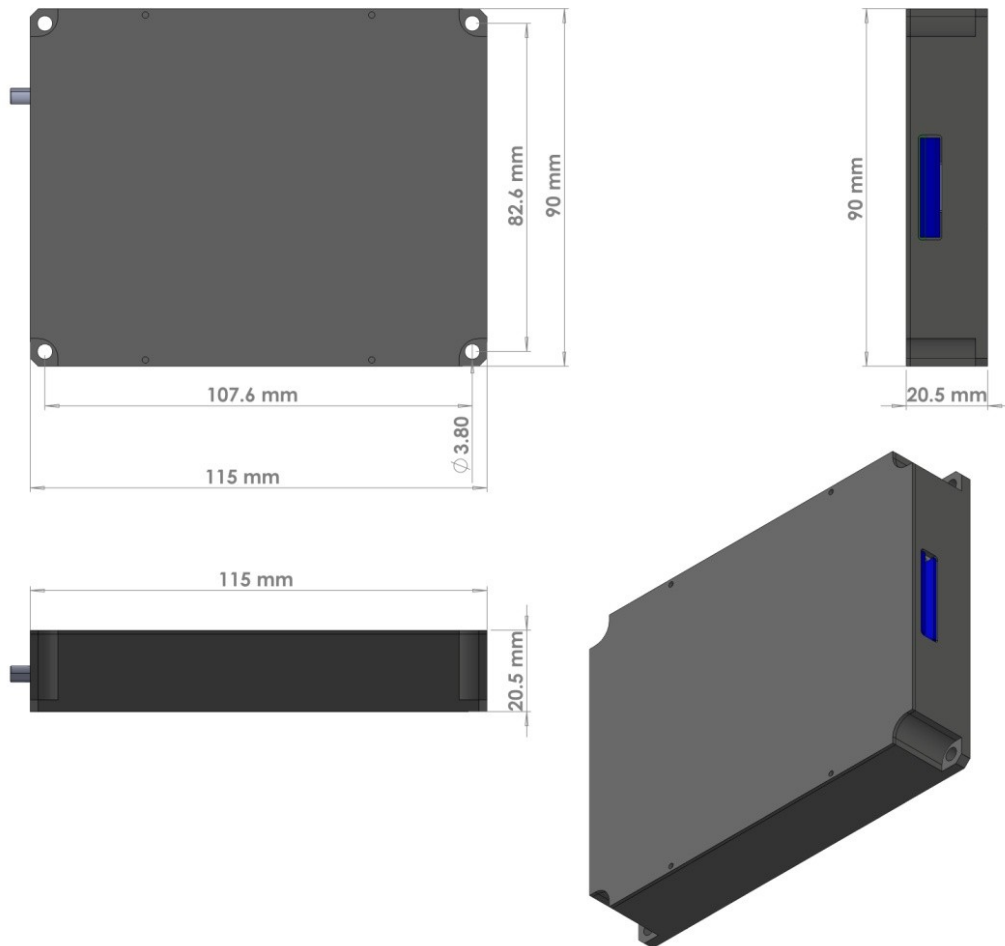


HE14 Shrouded Header Pin Layout (Pin 1 near to PMF output)

Pin No.	Symbol	Power/Control /Monitor	Analog /Digital	Input /Output	Description
1	P _{GND}	P			Power Supply Ground
2	P _{GND}	P			Power Supply Ground
3	VS	P			+5V DC
4	VS	P			+5V DC
5	NC				
6	T _{MON}	M	A	O	To monitor the thermistor temperature in SLED
7	NC				
8	P _{REF}				For internal reference power check1
9	P _{SET}	C	A	I	To set SLED optical output power
10	A _{GND}				Signal ground for control and monitor signals

1) Connect Pin 9 (P_{SET}) to Pin 8 (P_{REF}) to check internal factory optical power setting. Leave Pin 8 (V_{REF}) unconnected for external power control through Pin 9 (P_{SET}).

Technical Drawing



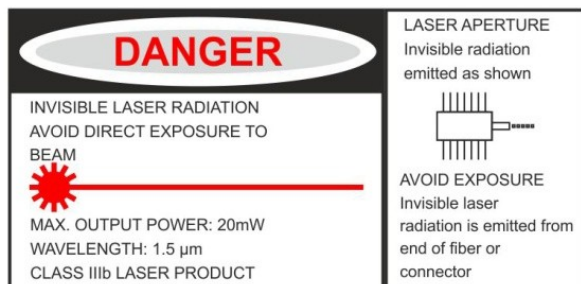
Dimension: 90 x 115 mm, Height = 20.5mm Or customized

Enclosure: Metal Case Air-cooled

Optical output: 1 m **PM** Panda fiber, 900um loose tube with FC/APC

Electronic interface: 10-way single row **HE14** shrouded header

Unless otherwise specified. Tests are performed at Top = All Storage Temperature



MAXER PHOTONICS LTD.

180 West Beaver Creek Road,
Richmond Hill, Ontario, Canada, L4B 1B4

www.maxerphotonics.com

sales@maxerphotonics.com