1650nm Semiconductor Optical Amplifier



Description:

The PL-SOA-1-A81-W1650-PAPA 1650nm Semiconductor Optical Amplifier (SOA) is single-pass, traveling-wave amplifier that perform well with both monochromatic and multi-wavelength signals. The SOA consists of a highly efficient InP/InGaAsP Multiple Quantum Well (MQW) layer structure.

Features:

- Single mode input/output
- Low chip-to-fiber coupling loss
- CW or pulsed operation
- SM or PM Fiber (ø0.9mm)
- FC-APC connectors
- 14-pin butterfly package
- Built-in thermistor and TEC
- Low power consumption

Optional:

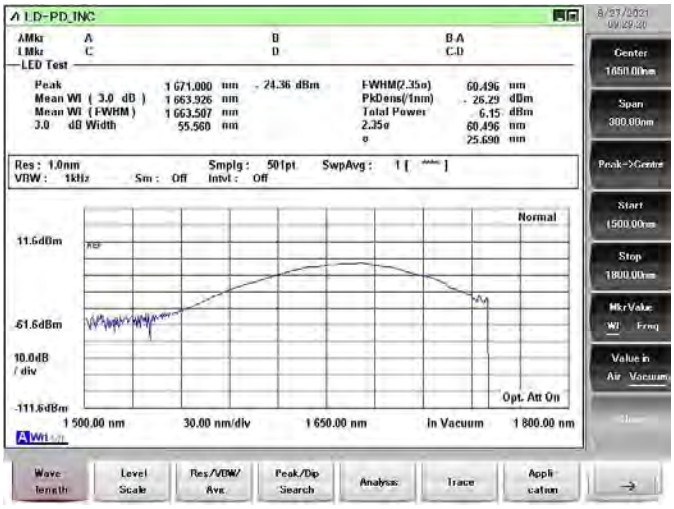
- Fiber transmission systems
- Fiber optic gyros
- Fiber optic sensors
- Optical coherence tomography
- Testing Light source

Laser Specifications:

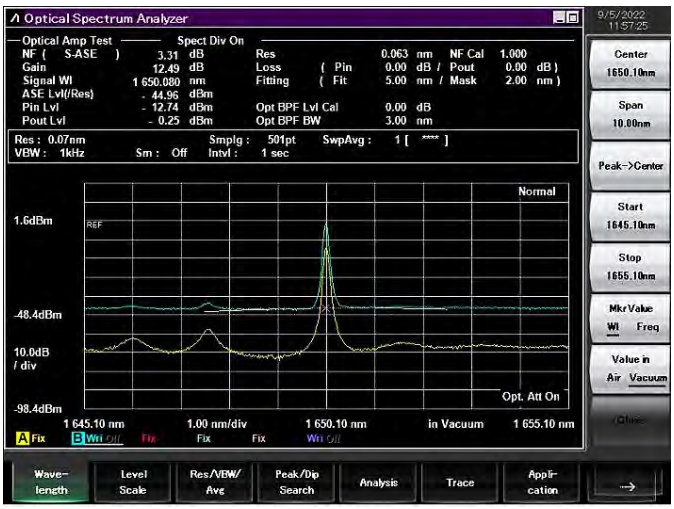
Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Saturation output power	Psat	Pin=-3dBm, I= 350mA,T=25°C	13	13.4		dBm
Small Signal Gain	Gmax	Pin=-25dBm, I= 500mA,T=25°C	20	20.5		dB
Noise Figure	NF	Pin=-25dBm, I= 500mA,T=25°C		4.6	10	dB
Polarization extinction ratio	PER	I= 500mA,T=25°C	20	27		dB
Voltage	Vop	I=500mA,T=25°C		1.845	3	V

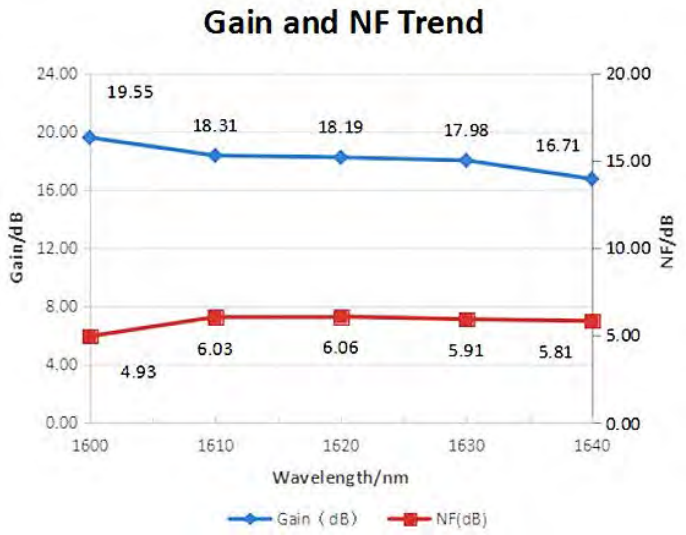
Spectrum:



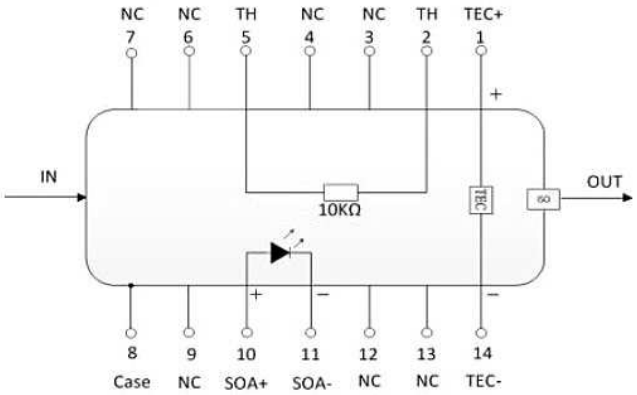
SOA Power amplification comparison(Pin = 0dBm, I = 500 mA):



Gain and NF Trend:

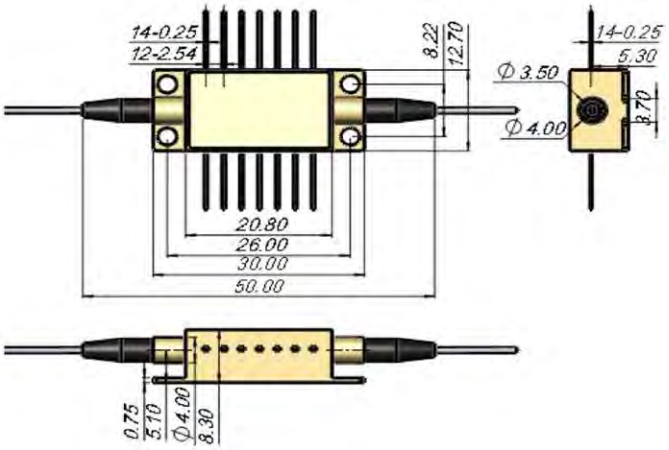


Package Size and pin definition:



NO.	Function	NO.	Function
1	Thermoelectric Cooler (+)	8	Case Ground
2	Thermistor	9	N/C
3	N/C	10	SOA Anode (+)
4	N/C	11	SOA Cathode (–)
5	Thermistor	12	N/C
6	N/C	13	N/C
7	N/C	14	Thermoelectric Cooler (–)

Outline Drawings (unite mm) :



Ordering Info:

PL-SOA-☆-A8▽-W□□□□-XX

☆ :Output Power

A: 13dbm

B: 20dbm

▽: Bandwidth

1: 60-70nm

2: 30-40nm

□□□□:Wavelength

680: 680nm

850: 850nm

*****

1550: 1550nm

1650: 1650nm

XX: Fiber and Connector Type

SASA=(SMF-28E+ FC/APC)+(SMF-28E+ FC/APC)

SPSP=(SMF-28E+ FC/PC)+(SMF-28E+ FC/PC)

PAPA=(PM Fiber+ FC/APC)+(PM Fiber+ FC/APC)

PPPP=(PM Fiber+ FC/PC)+(PM Fiber+ FC/PC)

PAPA=(PM Fiber+ FC/APC)+(PM Fiber+ FC/APC)