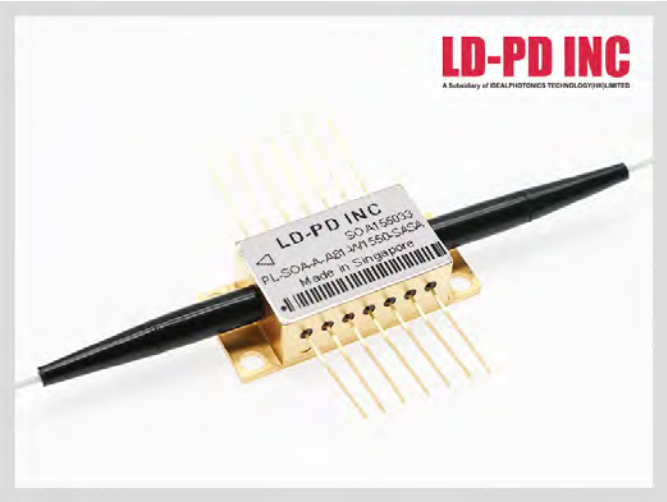
C-Band Semiconductor Optical Amplifier, Non-linear



Description:

The PL-SOA-A-A81-W1550-SASA is a polarization-insensitive optical amplifier with advanced epitaxial wafer growth and opto-electronic packaging techniques that enable a high output saturation power, lownoise figure, and large gain across a broad spectral bandwidth.

Features:

- Wide Optical Bandwidth
- High Output Power
- Low Polarization Sensitivity
- MQW or Bulk Structure

Applications:

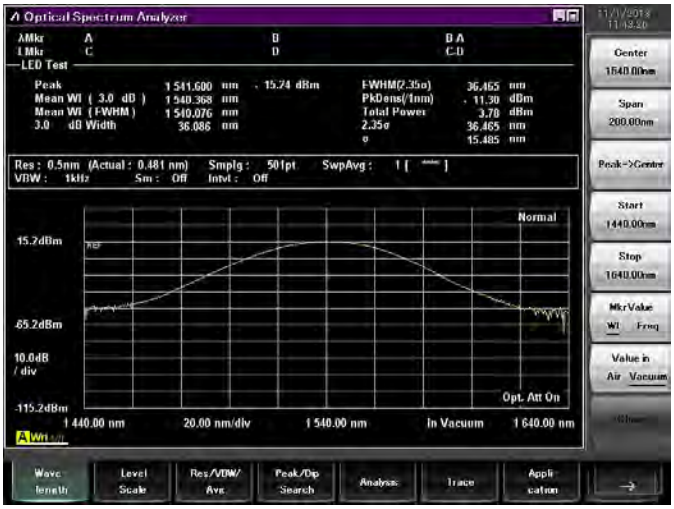
- Booster Amplifier
- Telecom and Datacom
- Loss Compensation

Laser Specifications:

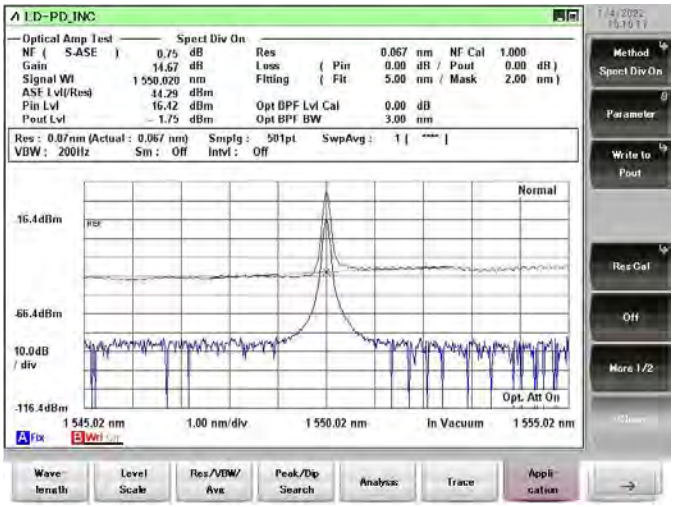
Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

tem #	Symbol	PL-SOA-A-A81-W1550-SASA		
		Min	Typical	Max
Operating Current	IOP	-	450 mA	500 mA
Operating Wavelength Range		1528 nm	-	1562 nm
Center Wavelength	λC	-	1550	-
Saturation Output Powerb (@ -3 dB)	PSAT	12 dBm	14 dBm	-
Small Signal Gain (Over C-Band @ Pin = -20 dBm)	G	10 dB	13 dB	-
Gain Flatness (Over C-Band @ Pin = -20 dBm)	ΔG	-	5 dB	7 dB
Gain Ripple (p-p) @ IOP, λC	δG	-	0.1 dB	0.5 dB
Polarization Dependent Gain	PDG	-	1.0 dB	1.8 dB
Noise Figure	NF	-	8 dB	9.5 dB
Forward Voltage	VF	-	1.6 V	1.8 V
Chip Length	-	-	1.5 mm	-
Waveguide Refractive Index	-	-	3.2	-
TEC Operation (Typical/Max @ TCASE = 25/70 °C)				
TEC Current	ITEC	-	0.23 A	1.5 A
TEC Voltage	VTEC	-	0.5 V	4.0 V
Thermistor Resistance	RTH	-	10 kΩ	-

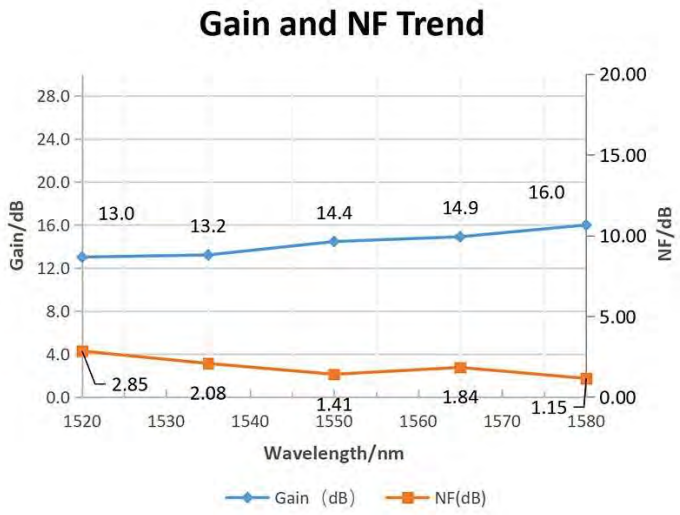
ASE Spectrum:



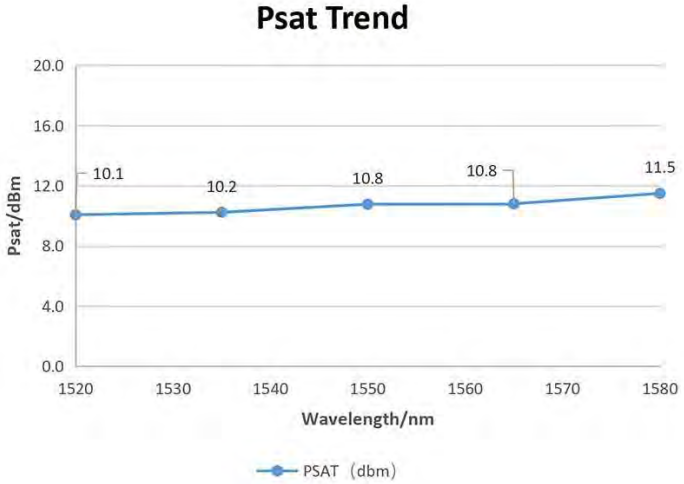
SOA Power amplification comparison(Pin = 0dBm, I = 450 mA):



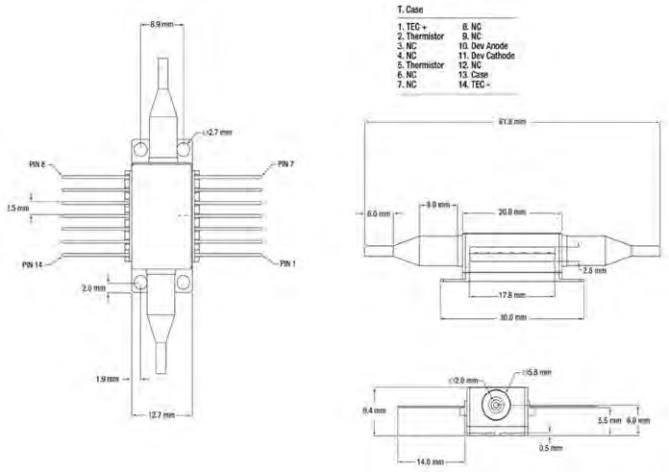
Gain and NF Trend:



Psat Trend:



Dimensions and Pin definitions:



NO.	Function	NO.	Function
1	TEC (+)	8	N/C
2	Thermistor	9	N/C
3	NC	10	Dev Anode (+)
4	NC	11	Dev Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case
7	N/C	14	TEC (-)

Ordering Info:

PL-SOA-☆-A8▽-W□□□□-XX

☆ : Output Power

A: 5dbm

B: 10dbm

▽:Bandwidth

1: 60-70nm

2: 30-40nm

□□□□:Wavelength

680: 680nm

850: 850nm

*****

1550: 1550nm

1600: 1600nm

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)