

Features

- * Redundant BLS in one
- * Compact package size
- * Broad spectrum
- * High power ASE source
- * Excellent power stability
- * Highly reliable and stable
- * Low power consumption

Applications

- * Optical components testing
- * Optical fiber characterization
- * Optical measurement system
- * Fiber optic sensing
- * Fiber Optic Gyroscope

Description

GIP Technology Broadband Light Sources (BLSs) are based on the principle of Amplified Spontaneous Emission (ASE) that emit broadband spectrum in the C-band, L-band and or C+L bands. These products can provide high powered, reliable and stable ASE light source that are suitable for the application of optical sensing systems and components characterization.

This model can be offered as ASE light source in the C-band.

The low-profile package provides solutions for multiple applications and serving area sizes.



Specifications

Optical Information		Unit	Description
Wavelength, Mean*1		nm	1534 ± 1
Spectrum width, FWHM	Min.	nm	12
Saturated output power, per port*2	Min.	dBm (mW)	3 (2)
Number of output ports			4
Output power stability*2	Max.	dB	0.3
Return loss	Min.	dB	50
EDF type			AG980H
Fiber type			SMF-28 with 900µm loose tube
Fiber length		M	Customized
Connector			Customized
Electrical Information			
Operating voltage		Vdc	3.3 ± 0.2
Power consumption	Max.	W	3.3*3
	Nom.		1.0*4
Control mode			Auto power control
Alarm status			Loss of output power, LD temperature
External control			LS enable / disable
Connector			Dual Male header 1×6 pins (2mm pitch) with Female socket and wire
Environmental Information			
Operating case temperature		°C	-20 ~ 65
Storage temperature		°C	-20 ~ 80
Relative humidity (non-condense)		%	5 ~ 85 (operating)
Mechanical Information			
Dimension (W x L x H)		mm	93 x 108 x 26

*1. Measured at 1500 ~ 1600 nm

*2. Measured at 25°C, 1 hour after 30 minutes warm up

*3. Measured at maximum output power, full temperature range

*4. Measured at maximum output power, 25°C. BLS's driving current ≤200mA



Electrical Pin Assignment

Pin	Description	Remark
1	GND	(LS) GND
2	+3.3 (LS1)	(LS1) DC input
3	Alarm, LD temp.	(LS1) Low: Normal / High: Alarm
4	Alarm, Pout	(LS1) Low: Normal / High: Alarm
5	LS disable input	(LS1) Low: Enable / High: Disable
6	GND	(LS1) GND

Pin	Description	Remark
1	GND	(LS2) GND
2	+3.3 (LS2)	(LS2) DC input
3	Alarm, LD temp.	(LS2) Low: Normal / High: Alarm
4	Alarm, Pout	(LS2) Low: Normal / High: Alarm
5	LS disable input	(LS2) Low: Enable / High: Disable
6	GND	(LS2) GND

Note: Output voltages of alarm pin defined as below:

(1) High: ≥ 2 V

(2) Low: ≤ 0.8 V



Controlling Functions

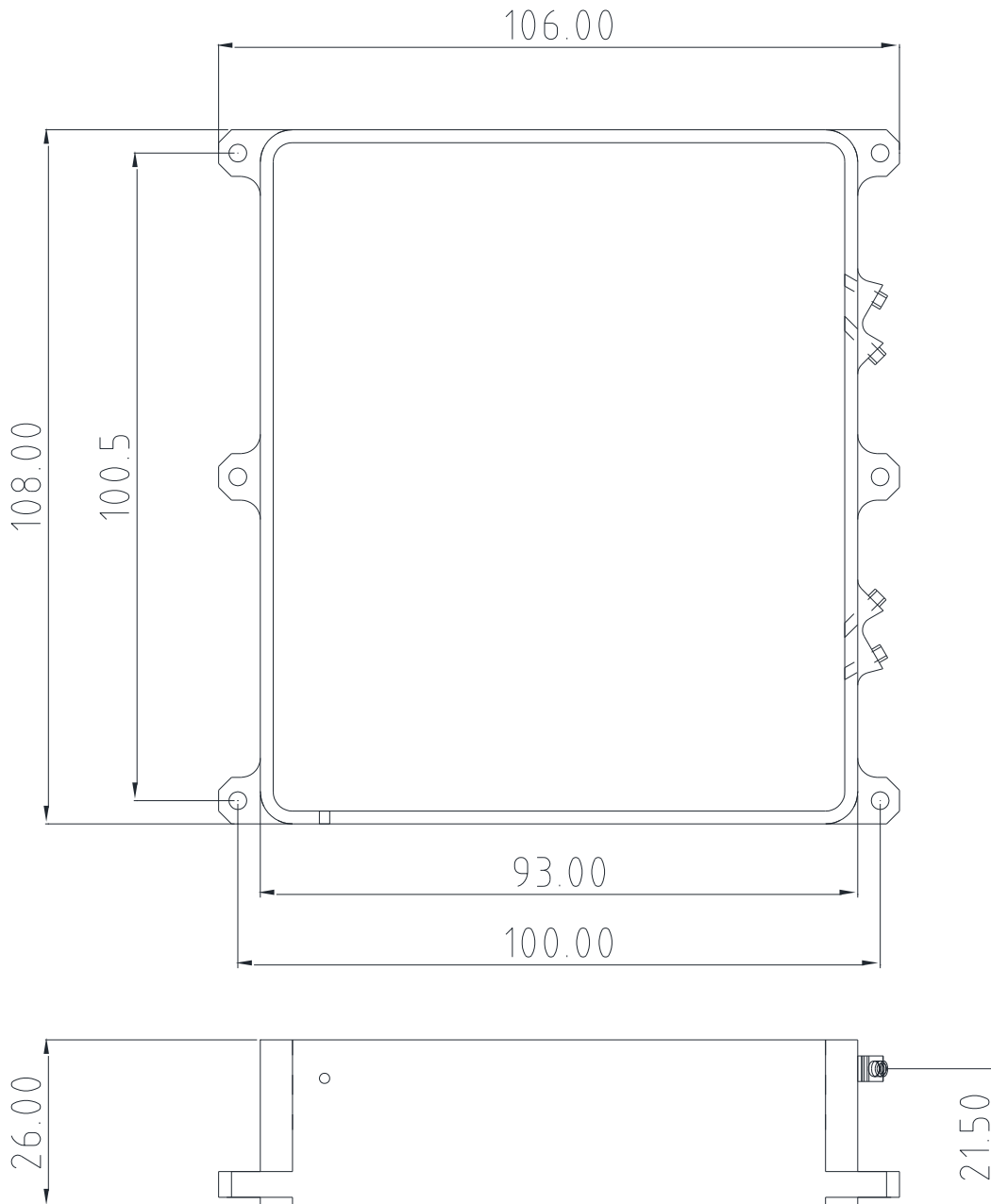
No	Item	Explanation	Remark
1	LS disable input	Low: Pump LD ON High: Pump LD OFF (Shutdown)	Pin #5

Monitoring Functions

No	Item	Explanation	Remark
1	Loss of output alarm	The alarm raised, when output power is degrade to alarm level or less.	Pin #4: Low: Normal / High: Alarm
		The alarm released, when output power is higher than recovery level or more.	
		Levels of alarm/recovery:	
		Alarm (dBm) Recovery (dBm)	
		+0 +1	
2	LD temperature alarm	The alarm raised, when LD case temperature is up to 65°C or more. The alarm released, when LD case temperature is lower than 45°C.	Pin #6: Low: Normal / High: Alarm Note: The LD shutdown will not be triggered by the alarm



Outline Drawing



User Safety

The invisible laser light emitted from this module is harmful to the human eyes. Proper laser safety eyewear must be worn during operating. This product is complied with IEC 60825 and FDA 21 CFR 1040.10 and 1040.11, Class 3B laser product.



ESD Protection

The laser diode and photodiodes contained in this module are very reliable under normal operating conditions. However, electrostatic discharge (ESD) is the primary cause of unexpected failure. Take extreme precaution to prevent ESD. Use wrist strip, grounded work surfaces, and rigorous antistatic techniques when handling it.

