2 µm ASE Broadband Laser Source

(Up to 100mW SM, PM, Benchtop)

The TASE series of Thulium-Doped (Tm) Fiber ASE Benchtop is an amplified spontaneous emission (ASE) source operating around 1900 nm that provides turnkey operation and single-mode optical fiber output for test and measurement applications. Each TASE fiber laser is constructed using a thulium-doped fiber as the gain medium and pumped by a single-mode laser. The TASE has broad bandwidth, and the output power is precision stabilized by a feedback controller, making it a reliable benchtop laboratory instrument. The laser output is accessible via a fiber connector bulkhead compatible with 2.0 mm narrow key FC/APC connectors. An integrated isolator at the output minimizes the impact of back reflections on the laser cavity. It has a front power control knob and a USB computer interface. An emission switch adds safety. The typical optical emission of the ASE1900 has an 1870 nm center wavelength and a 100 nm spectral width measured 20 dB below the peak value. When the current driving the laser diode pump source is set to its maximum, the typical ASE output power measured over the entire emission band is 50 mW. The ASE source can be customized to have slightly shorter or longer center wavelengths upon request. An interlock pin is installed. The ASE source includes a universal power supply, allowing operation over 100 to 240 VAC without the need to select the line voltage. This unit is supplied with a region-specific power cord. The fuse access is conveniently located on the back panel.

Features

- Broadband
- High Stability Output
- Adjustable Output Power
- Single Mode and PM Mode
- USB
- Turn-Key Benchtop

Applications

- Lab
- OEM
- Sensor
- Instrumentation

Specifications

Parameters	Min	Typical	Max	Unit
Operation Wavelength	1820		2020	nm
Wavelength Bandwidth	80	100		nm
Operation Mode		CW		
Output Power	15	20	70	mW
Spectral Linewidth	120	200		nm
Output Isolation	30			dB
Polarization Extinction Ratio (PM Fiber)	20	26	35	dB
Output Power Adjust Range	10		100	%
Output Power Stability (within 8 hr)		0.05	0.1	dB
Operating Temperature	-5		35	°C
Storage Temperature	-40		85	°C
Electrical Power Consumption			5	W
Electrical Power Input	100		240	VAC
Computer Interface	USB			

* PM output maximum is 50mW

Rev 02/11/24

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Operation Manual

- Plug AC power
- Turn ON The Power Switch
- The Laser Can be Controlled By a Computer via The USB/GUI Interface
- Turn On The Emission Switch

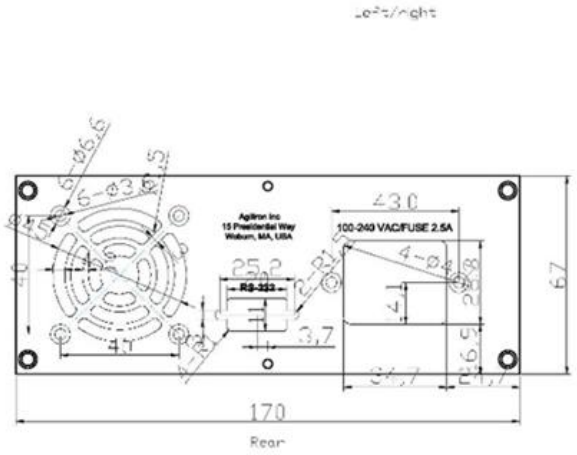
For Manual Operation (option)

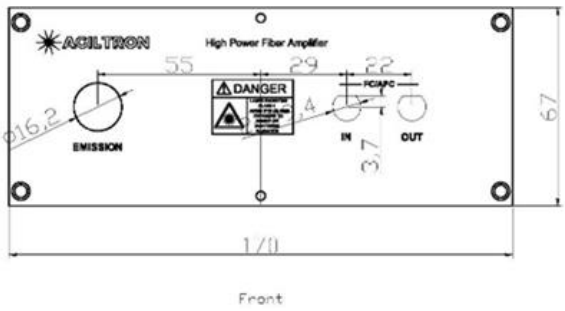
- Adjust The Output Power to Minimum by Turning The Knob All Way Counter Clockwise
- Increase The Out Put Power by Turning The Knob Clockwise

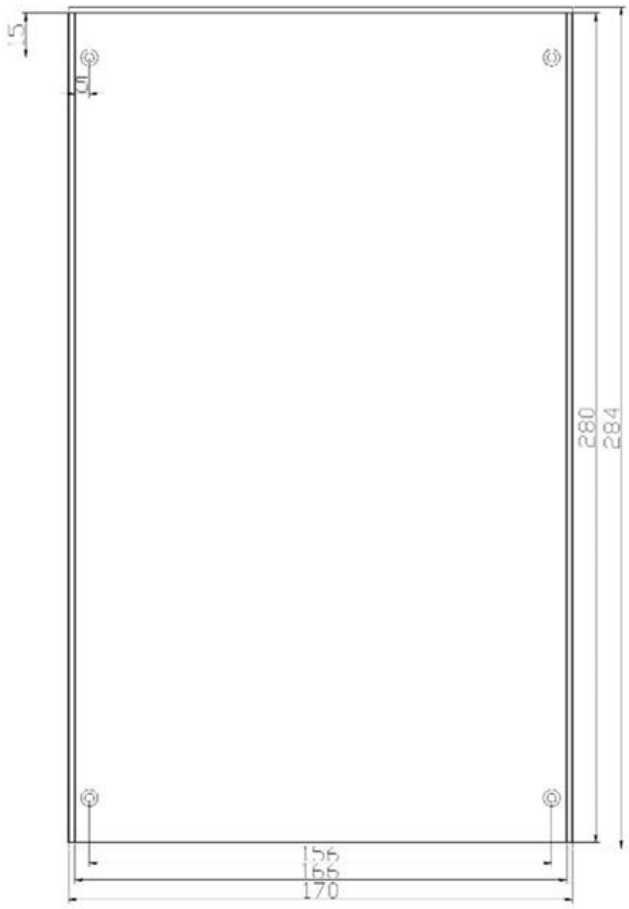
Special Feature

- To Modulator The Laser, Turn On The Modulation Switch at the Back, Input a 0-5V Modulation Signal Via The BNC Connector

Mechanical Dimension







*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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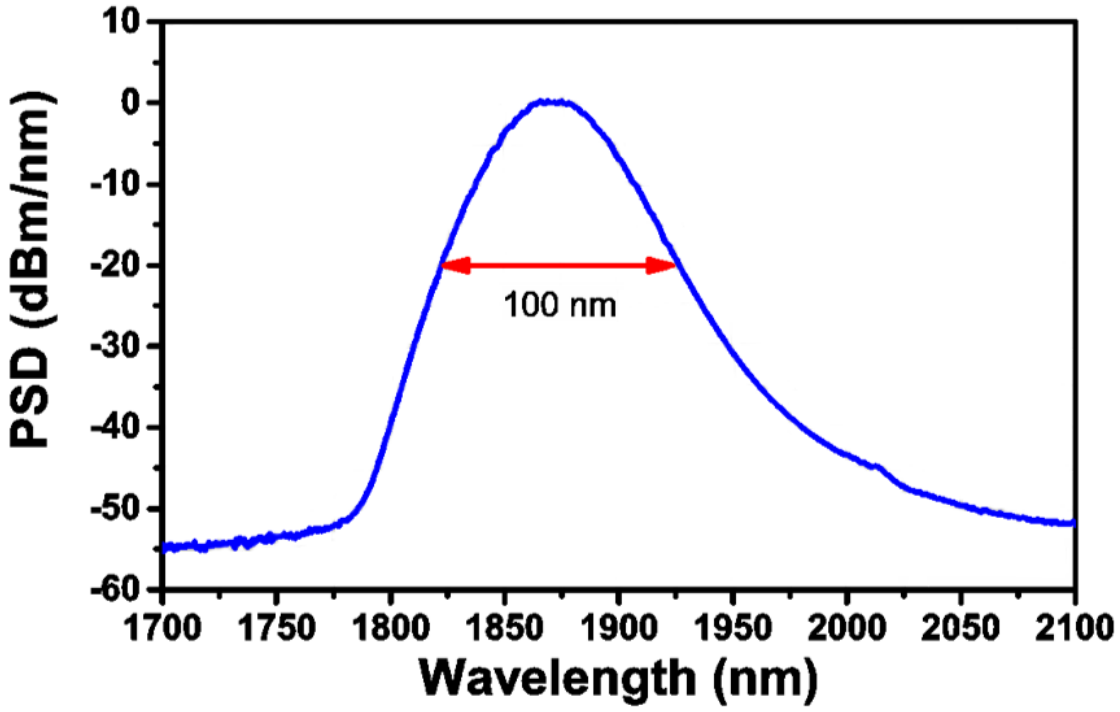
Typical Spectrum



Ordering Information

	☐	☐ ☐	☐	☐	☐	☐	☐	☐
Prefix	**Config**	**Output Power**	**Mode [1]**	**Spectral Width**	**Power Supply**	**Interface**	**Connector**	**Front Control**
TASE-	Benchtop = 1 Component = 2 Special = 0	15mW = 01 20mW = 02 50mW = 05 70mW = 07 Special = 00	Random = 1 PMER18dB = 2 PMER25dB = 3 PMER30dB = 4	Broad = 1 Special = 0	120-220V = 1 Non = 2	USB = 1 RS232 = 2 Non = 3 PCB = 4	FC/APC = 3 Bare Fiber = 1 Special = 0	Non = 1 Yes = 2 Special = 0

[1] PMER- Polarization Maintaining Extinction Ratio.

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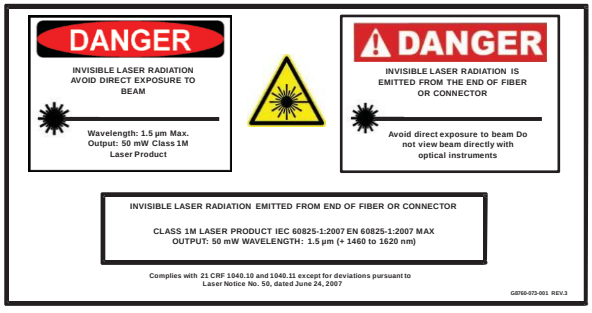
USB Command List

Laser Safety

This product meets the appropriate standard in Title 21 of the Code of Federal Regulations (CFR). FDA/CDRH Class 1M laser product. This device has been classified with the FDA/CDRH under accession number 0220191. All versions of this laser are Class 1M laser products, tested according to IEC 60825-1:2007 / EN 60825-1:2007. An additional warning for Class 1M laser products. For diverging beams, this warning shall state that viewing the laser output with certain optical instruments (for example eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. For collimated beams, this warning shall state that viewing the laser output with certain instruments designed for use at a distance (for example telescopes and binoculars) may pose an eye hazard.

Wavelength = 1.3/1.5 µm.

Maximum power = 30 mW.



*Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
*IEC is a registered trademark of the International Electrotechnical Commission.

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Questions and Answers

Q:

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