SYNCTHREADS COMPUTING

0.5 Gbps High Speed Laser Diode Module

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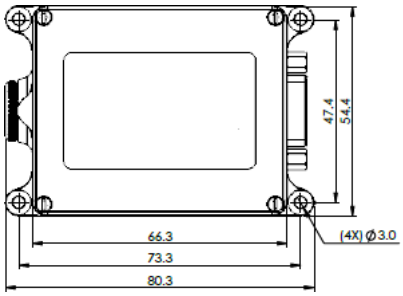
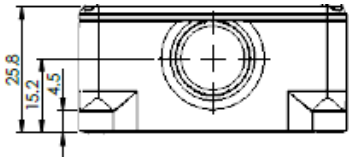
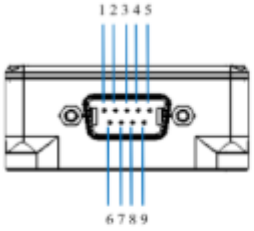
Model: STC-FS-LD-0.5Gbps

The 0.5Gbps InGaAs laser diode, paired with its driver, enables precise modulation and control for efficient optical transmission. With support for data rates up to 0.5Gbps, the driver regulates modulation current and ensures laser safety. It features differential inputs, compact design, and compatibility with various power supplies, making it versatile for applications such as Gigabit Ethernet, Fibre Channel, and SONET networks. This integration ensures robust and reliable optical communication across diverse setups.







Pin	Description
1	Vcc
2	Ground
3	PD+
4	PD-
5	Data
6	NC
7	NC
8	NC
9	NC

Features:

- 1550nm
- Single Mode Beam
- With Non-spherical lens
- Built-in Photo Diode

Application:

- Optical Fiber Communication
- Free-space Optical Communication

Absolute Maximum Ratings (Tested at T=25°C)

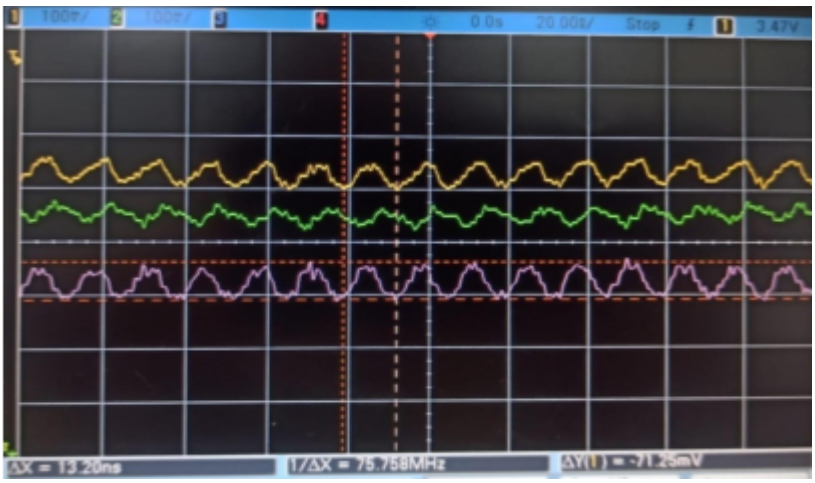
Parameter	Values	Units
Storage temperature	-40 + 85	°C
Operating temperature	-20 + 45	°C
Reverse Voltage	2	V
Lead Soldering Temperature	260	°C
Center Wavelength@25°C	1550 ±10	nm
Output Power	20	mW
Spectral Width (FWHM)	< 3	nm
Threshold Current (Typical)	10	mA
Operating Current (Typical)	90	mA
Operating Voltage	1.4	V
Monitor Current	50 - 500	uA

Precautions:

1. Do not power on the module before the output is properly connected.
2. Keep the shutter of the module closed when not in use.
3. Do not try to tamper the outside casing of the laser diode module. For any help, kindly contact us or send it back to the source for repair.
4. Refer to the datasheet for crucial details like voltage, current and recommended operating conditions.
5. Apply the specified voltage and current to the laser diode module, ensuring the power supply remains stable and within the prescribed range as indicated in the datasheet.
6. Choose a photodiode that matches the wavelength of the laser diode being tested. The photodiode should have a spectral response that covers the laser wavelength to provide accurate measurements.
7. Handle the module with care, avoiding static electricity and physical damage. Ensure secure mounting and thermal management.
8. Use appropriate instruments for monitoring the laser diode module's output signal, aligning with the datasheet specifications.
9. Adhere to safety guidelines when working with electrical components and light sources, taking necessary precautions to protect against potential hazards.

Calibration Data

Output



Disposal Information for India

The symbol indicates that this product should not be disposed of with household waste. When you decide to dispose of this product, do so in accordance with local environmental laws and guidelines.

The internal components of this instrument are sensitive to Electrostatic Discharge (ESD). Ensure the discharge of personnel and equipment by taking necessary precautions before establishing any electrical connections with the unit. Damages resulting from Electrostatic Discharge (ESD) are not covered under warranty.

Safety and Toxicity Aspects

The toxicology of InGaAs has not been fully investigated. The dust is an irritant to skin, eyes and lungs. The environment, health and safety aspects of Indium Gallium Arsenide sources (such as Trimethylgallium, Trimethylindium and Arsine) and industrial hygiene monitoring studies of standard MOVPE sources have been reported recently in a review:

Environment, health and safety issues for sources used in MOVPE growth of compound semiconductors; D V Shenai-Khatkhate, R Goyette, R L DiCarlo and G Dripps, Journal of Crystal Growth, vol. 1-4, pp. 816-821 (2004); doi:doi:10.1016/j.jcrysgro.2004.09.007

Declaration of Conformance

This product complies with Reduction of Hazardous Substances (RoHS) requirements specified in E-Waste (Management) Rules, 2016.

Syncthreads' One-Year Limited Warranty Summary

Syncthreads warrants the included hardware product and accessories (if applicable) against defects in materials and workmanship for one year from the date of original purchase. Syncthreads do not warrant against normal wear and tear, nor damage caused by accident or abuse. To obtain service, call Syncthreads at +91 7387 333 297 or email at support@syncthreads.in.

Available service options are dependent on the country in which service is requested and may be restricted to the original country of sale. Call charges and shipping charges may apply, depending on the location. Subject to the full terms and detailed information on obtaining service under warranty, if you submit a valid claim under this warranty, Syncthreads will either repair, replace, or refund your hardware device at its own discretion. Warranty benefits are in addition to rights provided under local consumer laws. You may be required to furnish proof of purchase details when making a claim under this warranty.