

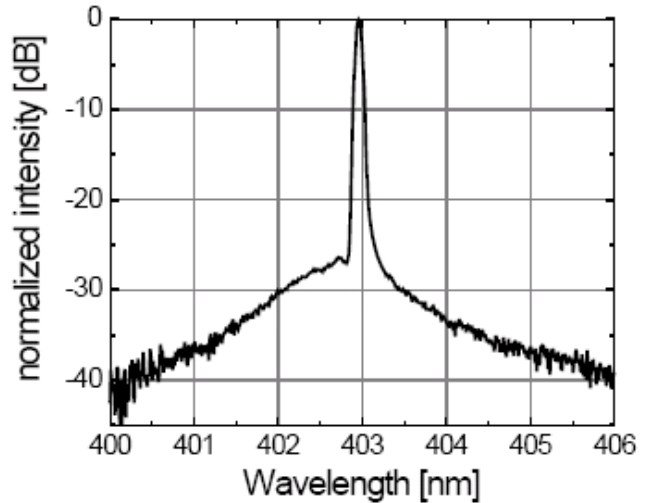
Temperature Stabilized Single Longitudinal Mode Laser Module

Key Features:

- ◆ Single Longitudinal Mode
- ◆ Low Power Consumption
- ◆ Constant Optical Power
- ◆ TTL Modulation Option
- ◆ Low Optical Noise
- ◆ ESD Protection
- ◆ Plug & Play

Applications:

- ◆ Bio Technology
- ◆ Photo Finishing
- ◆ Semiconductor Instrument
- ◆ Medical Instrument
- ◆ Scientific Research



The FreeBeam™405 Violet Blue Single longitudinal Mode Laser Module is a highly integrated free space violet laser module with laser optics and electronics into a single package. It features very narrow optical spectrum width to less than 100MHz and long coherent length up to one meter. The wavelength drift is as low as 0.02nm over the life time and wide operational temperature range. The unique designed electrical driver enable this Laser Module has the lowest power consumptions compare to the similar product in the industry.



The FreeBeam™405Violet Blue Single longitudinal Mode Laser Module is available for single mode and multi mode fiber coupled configuration. The FreeBeam™405 Violet Blue Laser Module is a Class III b laser product.

Specifications:

Part Number	FBS - 405 – 0XX
Wavelength	403nm to 407nm
Output Power	10mW, 50mW
Noise(RMS)	<0.3%
Transverse Mode	TEM00
Longitudinal Mode	Single
Power stability	8hrs, <2%
Optical Spectrum Width	<100MHz
Optical Coherent Length	1 meter
Wavelength Stability	0.02nm
Polarization	100 : 1

This component does not comply with the Federal Regulations (21 CFR Sub chapter 1) as administered by the Center for Devices and Radiological health. Purchaser acknowledges that his/her products must comply with these regulations before they can be sold to a customer. The output light from this product is harmful to a human body even if it is invisible. Avoid looking at the output of this product directly, or through a lens during operation. Observance of operation should be through a TV camera or related equipment. Refer to IEC 825-1 and 21 CFR 1040.10-1040.11 as a radiation safety standard for laser products.

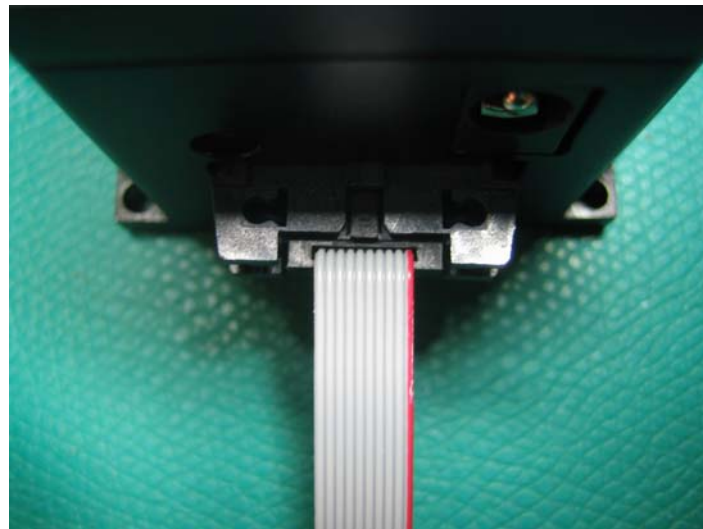
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Beam diameter	1.8 X 0.7mm
Beam divergence	0.4 X 0.6 mrad
Operation Voltage	9V+/- 0.5V DC
Operation Current	TEC Max 2.5 A, LD Max 140mA
Operation Temperature	10°C to 35°C
Mechanical Size	100mm(L)X44mm(W)X38.5mm(H)
RF Input	SAMTEC #: MMCX-J-P-X-RA-TH1*
Electrical Interface	SAMTEC #: EHF-105-01-L-D-RA*

*You can find mating connector information at www.samtec.com

Electrical Pin Assignment:

Part Number	Function
Pin 1	+9V DC
Pin 2	+9V DC
Pin 3	+9V DC
Pin 4	+9V DC
Pin 5	Power GND
Pin 6	Power GND
Pin 7	Power GND
Pin 8	Power GND
Pin 9	Power Setting, 0V Max power, 2.5V Min Power
Pin 10	Internal Testing Pin



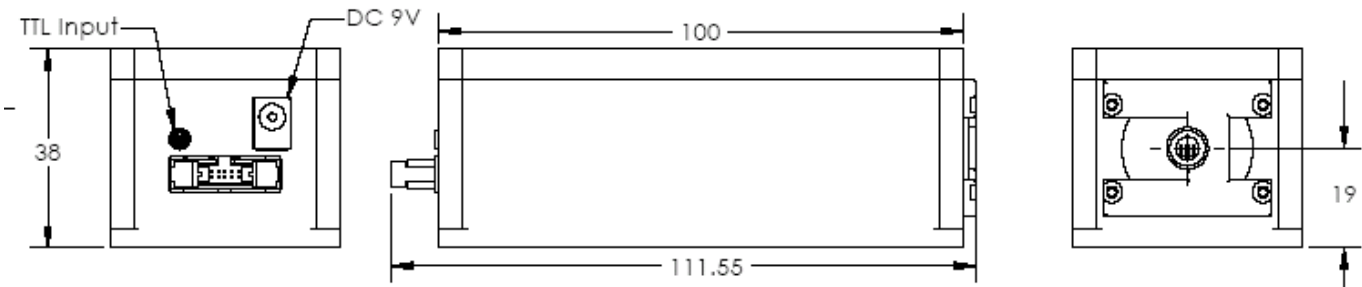
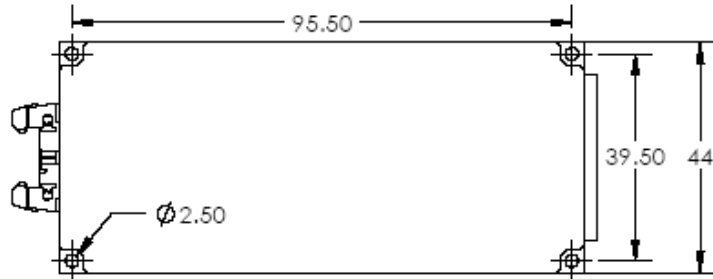
Pin 10 Pin 1

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RGLase LLC follows a policy of continuous product improvement. Specifications are subject to change without notice.

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Mechanical Dimension:



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