RgBLase LLC

P/N: FBX – 635 – XXX ***V1.0***

Temperature Stabilized Semiconductor Laser Module

Key Features:

- Fiber Coupled or Free Space
- 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^{TM}635 Red Laser Module is a highly integrated free space violet laser module with laser optics and electronics into a single package. It features very low optical noise and up to 20 KHz TTL modulation. Low temperature setting can improve laser operation lifetime. The unique designed electrical driver enable this Laser Module has the lowest power consumptions compare to the similar product in the industry.

The FreeBeam^{TM}635 Red Laser Module came with two different packages for you to choose from. Tub style part number start with FBT, box style start with FBB. FBB can allow you to remotely control Laser output power through electrical cable connect to the back panel of the package, while FBT can allow you to control optical power locally through a potential meter on the back panel of the laser tube.

The FreeBeam^{TM}635 Red Laser Module is available for single mode and multi mode fiber coupled configuration.

The FreeBeam^{TM}635 Red Laser Module is a Class III b laser product.

Specifications:

Part Number	FBX - 635 – XXX
Wavelength	630nm to 640nm
Output Power	40mW(single mode), 400mW(multi mode)
Noise(RMS)	<0.3%
Power stability	8hrs, <2%
Beam pointing stability	<10urad/°C
Polarization	100 : 1
Beam diameter	1.8 X 0.7mm
Beam divergence	0.3 X 0.7 mrad
Operation Voltage	9V+/- 0.5V DC
Operation Current	TEC Max 2.5 A, LD Max 140mA
Operation Temperature	10°C to 35°C

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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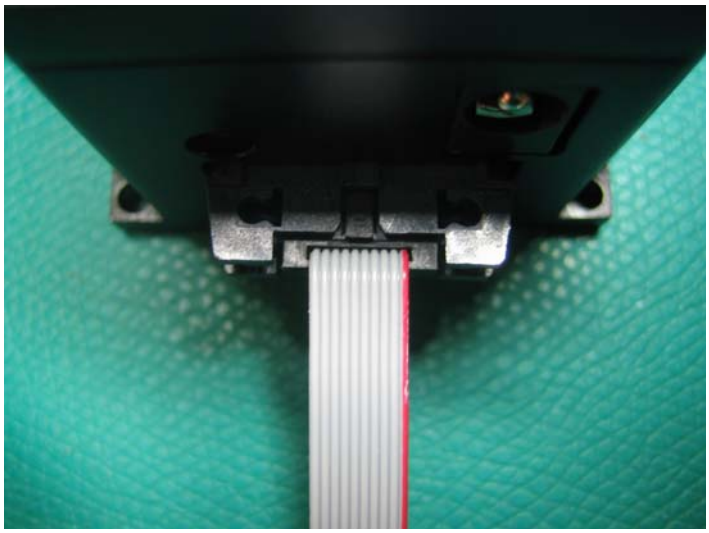
Mechanical Size(Box)	**100mm(L)X44mm(W)X38.5mm(H)**
Mechanical Size(Tube)	**ϕ40mmX116.3mm**
RF Input(for tube)	**SMA Receptacle**
RF Input(for box)	**SAMTEC #: MMCX-J-P-X-RA-TH1***
Electrical Interface(for box)	**SAMTEC #: EHF-105-01-L-D-RA***

*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 Pin1

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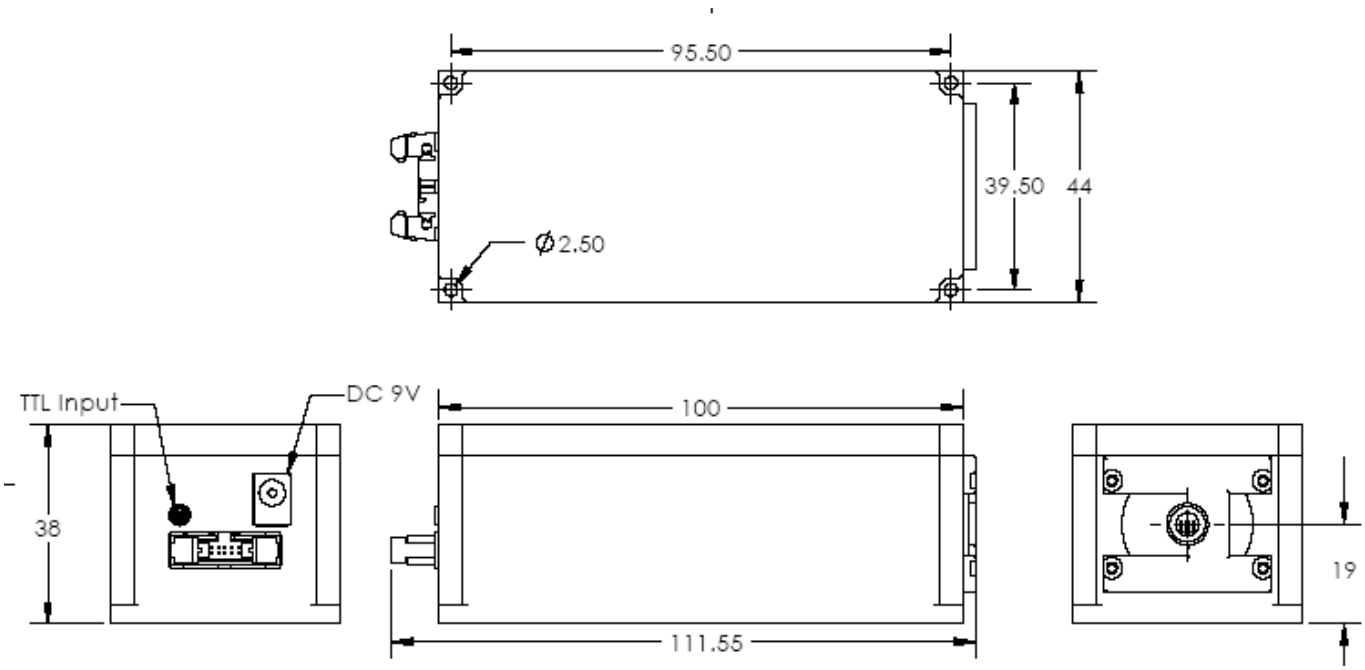
Mechanical Dimension:



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