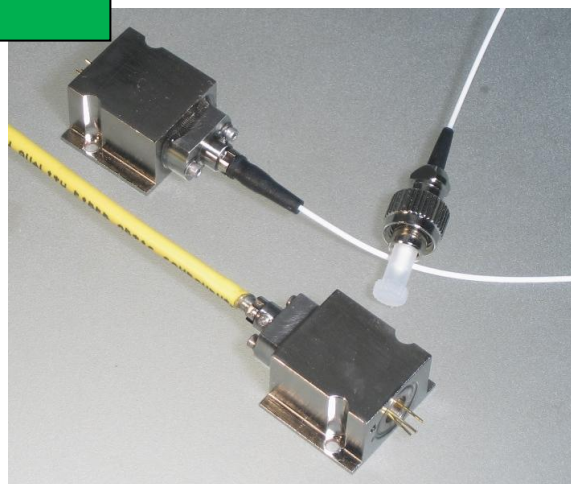


FiberMax 532 Green Laser

Preliminary Specification

Description

FiberMax532 is a single-mode fiber-pigtailed green laser module delivering superior performance for today's demanding electro-optic applications. Based on Blue Sky Research robust laser packaging technology, the FiberMax532 provides excellent coupling efficiency and stability in a cost effective package. The thermally stable design of the FiberMax532, based on our standard FiberMAX packaging technology, is a proven, stable package with many thousands of lasers operating in demanding applications. The units are offered with 3mm or 0.9mm jacketing and a range of collimator options.



Optical and Electrical Characteristics

Item	Symbol	Unit	Min	Typ	Max	Test Condition
Max Optical output power	P _O	mW	3	5	7	T _c =25°C
Operating current	I _{OP}	mA		250	400	T _c =25°C
Operating voltage	V _{OP}	V		2.0	3.0	T _c =25°C
Lasing wavelength	λ	nm		532		T _c =25°C
Monitor current	I _{MON}	μA		30		T _c =25°C

Absolute Maximum Rating

Item	Symbol	Unit	Min	Max	Test Condition
Operating temperature	T _{OPR}	°C	+20	+30	
Storage temperature	T _{STG}	°C	-10	+60	Non-condensing
LD reverse voltage	V _R (LD)	V		2	T _c =25°C
PD reverse voltage	V _R (PD)	V		30	T _c =25°C

Fiber Specs

Single mode fiber w/ 3mm or 900um protective jacket

Item	Symbol	Unit	Min	Typ	Max
Fiber numerical aperture	NA			0.13	
Mode Field Diameter @ 532nm	MFD	μm	3.0	3.5	4.0
Length	L	meter	-	1	-

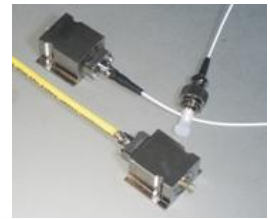
Contact Information:

BLUE Sky Research * 1537 Centre Pointe Drive * Milpitas, CA 95035 * (408) 941-6068 * FAX (408)941 – 0406
www.blueskyresearch.com * email: Sales @blueskyresearch.com

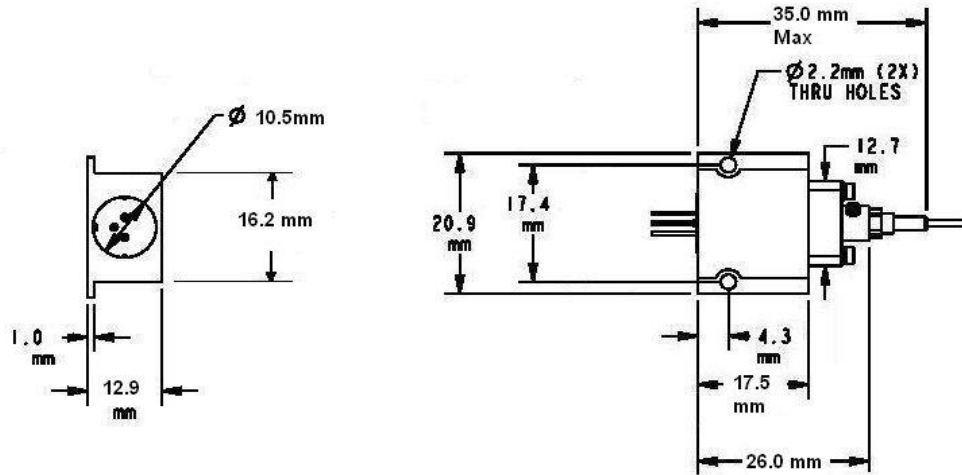


FiberMax 532 Green Laser

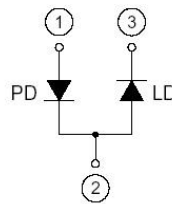
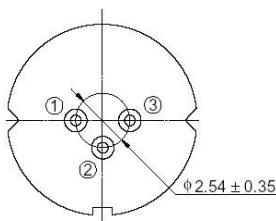
Preliminary Specification



Mechanical Outline



Electrical Configuration



Case is positive.

Ordering Information Part Number

FMXL-0532-XXX-YZC

Product Family – FMXL

XXX = Power Output (mW) – 005 for 5mW

Y = Fiber/Cable Type

S = single mode / 3mm jacket

T = single mode / 900 um jacket

Z = Fiber Connector

0 = No connector

F = FC/PC A=FC/APC

S=SC/PC G=SC/APC R=Ferrule only

C = Collimator

None = 0

Or M, N, P, Q

Type	M	N	P	Q
Beam Diameter ($1/e^2$, mm, $\pm 25\%$)	0.75	1.2	1.75	2.9
Divergence (mrad)	<1.2	<0.8	<0.5	<0.4

Contact Information:

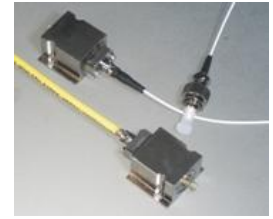
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FiberMax 532 Green Laser

Preliminary Specification



Handling Care and Precautions for Use of FiberMax™ Modules

1. Absolute Maximum Ratings

Do not exceed, *even momentarily*, the maximum ratings (see page 1, table). When a FiberMax module is driven in excess of its maximum ratings, it can cause at minimum a considerable reduction in reliability, and potentially instantaneous failure.

- FiberMax modules may be damaged by surge currents generated at power on-off operation. Check on the transient characteristics of the power supply to make sure that such surges do not exceed the maximum ratings.
- The maximum ratings are specified for a case temperature of 25°C. Designs should be made to work well within this temperature range. As the case temperature goes up, power dissipation as well as maximum light output power is reduced.

2. Soldering Conditions

Maximum solder-tip temperature is 260°C and soldering time must be within 3.0 seconds. A minimum solder clearance of 1.6mm should be maintained from the root of the lead.

3. Prevention of Breakdown due to Static Electricity

FiberMax modules may be adversely affected by static electricity and surge currents and, consequently, cause breakdown of the module and reduction of reliability unless the following precautions are taken:

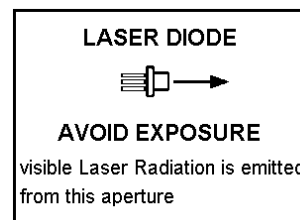
- Power supplies, installation and measuring equipment should be grounded. A noise filter or noise-cut transformer should be provided on any power supply inputs.
- Anyone working with a FiberMax module should be grounded through high resistance (500 K Ohm - 1M Ohm) by means of a ground strap and wrist band (for example).
- Soldering irons should be grounded to protect laser modules from voltage leaks.
- During operation of the FiberMax module, working clothes, hats, and shoes should be static-protected. Cotton-based clothing is preferred.
- Any container for carriage and storage should be static-protected.
- Avoid using laser modules in an environment where high frequency surge currents may be generated by an inductive electric field (such as a fluorescent lamp). These fields can also cause breakdown or deterioration of the laser module.

4. Package Handling

- The laser module package should not be cut off, reworked, or deformed. Care should be taken when handling the fiber to avoid kinking it.
- Do not touch the ferrule end. Any scratch or contamination may result in reduction of optical characteristics.
- Remove small contaminants on the ferrule surface carefully using a soft cotton tip stick with a small amount of methyl alcohol.

5. Safety

The output light from laser modules is harmful to a human body even if it is invisible. Avoid looking at the output light of a FiberMax module directly, or even indirectly through a lens during operation. Observance of operation should be through an infrared 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.



This component does not comply with the Federal Regulations (21 CFR Subchapter1) 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 laser diodes is harmful to a human body even if it is invisible. Avoid looking at the output light of a ChromaLase635 directly, or even indirectly 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.

Blue Sky Research follows a policy of continuous improvement. Specifications are subject to change without notice.

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