

Coaxial Fiber Coupled Laser

Single mode, up to 50mW



The FPLD series fiber-coupled laser diodes support single-mode or multi-mode fiber coupling, with efficient coupling performance. It adopts copper packaging for excellent heat dissipation, small size, high stability, and long working life. It belongs to an open unit design, which is convenient for secondary integration. This type of product has been validated in the market for many years. Customized services are available.

Features

- High Coupling Efficiency
- Long Lifespan
- Coaxial Package
- SM/MM/PM multi options

Applications

- Medical Laser Treatment
- Biotechnology
- Life Science Research
- Fluorescence Excitation
- Illumination or laser glare



Specifications

Parameter	Min	Typical	Max	Unit
Threshold Current	-	35	70	mA
Operating Current		150	170	mA
Operating Voltage		2.5		V
Optical Output Power	5	30	50	mW
Center Wavelength@25°C	385		1550	nm
Spectral Width	-	-	2	nm
Reverse Voltage	-	-	2.0	V
Fiber Core	2	3	9	μm
Fiber Type	Single Mode Fiber			
Package Style	Coaxial			
Fiber Connector	FC/SC/SMA905			
Recommend Operating Temperature	25			
Operating Case Temperature	-10	-	60	°C
Storage Temperature	-40	-	85	°C
Lead Soldering Temperature	-	-	260(10s)	°C
Relative Humidity (noncondensing)	-	-	85	%

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

Rev 04/13/25

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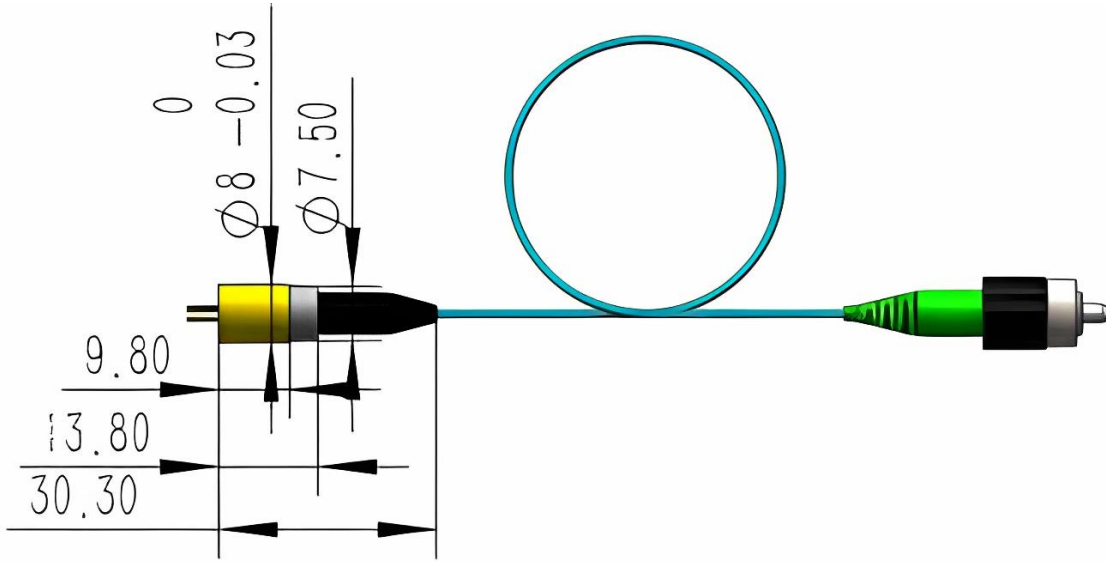
Single mode, up to 50mW



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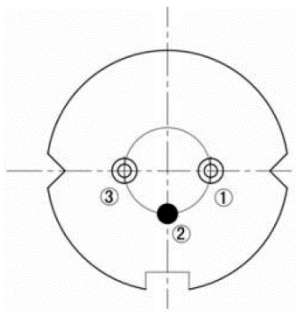
Mechanical Dimension (mm)

Coaxial Package View:



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

PIN Assignment



PIN	Function
1	LD (+)
2	GND
3	LD (-)

Bottom View

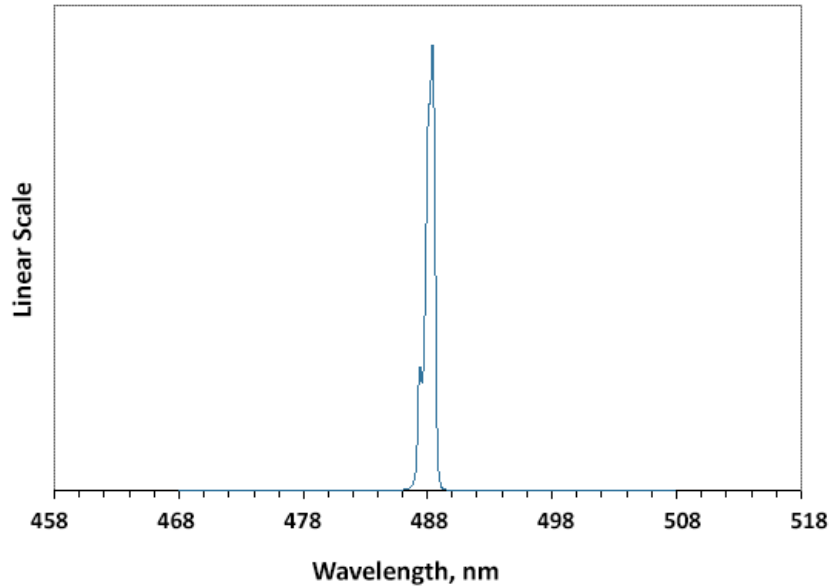
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Typical Spectrum



Ordering Information

Prefix	Wavelength ^[1]	Power	Monitor	TEC Cooling	Package	Fiber Type	Fiber Buffer	Fiber Length	Connector
FPLD-	385nm = 0385 • • • 1550nm = 1550	5mW = 1 10mW = 2 30mW = 3 50mW = 4 Special = 0	No = 2 Yes = 1	No = 1 Yes = 2	Coaxial = C	Single Mode ^[2] = 1 Special = 0	0.9mm Tube = 3 Special = 0	0.5m = 2 0.25m = 1 1.0 m = 3 Special = 0	FC/APC = 3 FC/PC = 2 Non = 1 SC/PC = 4 SC/APC = 5 LC/PC = 7 LC/UPC = U Special = 0

Note:

[1] Please refer to the supported wavelength list to find the correct wavelength

Supported Wavelength List (nm)

385	405	435	450	465	488
505	515	520	525	532	593
638	650	660	780	808	830
850	915	940	980	1064	1270
1310	1550				

[2] Fibers are different for different wavelength, contact us for details if necessary.

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Benchtop Matching Laser Diode Drivers

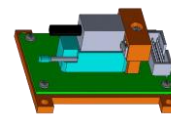
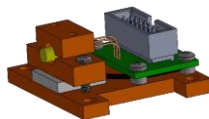
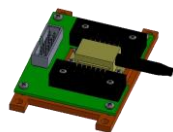


Agiltron cost-effective LDCB series benchtop control kit is designed for easy laser diode mounting and precise control. It incorporates a high-precision, low-noise auto-feedback drive electronics to ensure constant output power or a constant driving current and an integrated temperature control unit maintains optimal operating conditions. The system provides up to 1A driving current and up to 2A TEC cooling current. Each system features a front fiber output connector. The user interface includes an intuitive LCD display for independent control of output power and temperature via two front rotating knobs. The LDCB also includes a universal power supply compatible with 100 to 240 VAC. The LDCB has a built-in isolator option to prevent reflection-induced laser emissions instability. The LDCB is designed as a laser diode and TEC controller kit for customer to install laser diode. It has three types of pluggable laser mounts of butterfly, DIL, and TOCAN. The TOCAN mount contains an external TEC that maintains a constant temperature for wavelength stability.

Module Matching Laser Diode Drivers



Agiltron cost-effective LDCD series module control kit is designed for easy laser diode mounting and precise control. It incorporates a high-precision, low-noise auto-feedback drive electronics to ensure constant output power or a constant driving current and an integrated temperature control unit maintains optimal operating conditions. The system provides up to 1A driving current and up to 2A TEC cooling current. It has three types of pluggable laser mounts of butterfly, DIL, and TOCAN. The TOCAN mount contains an external TEC that maintains a constant temperature for wavelength stability. It comes with cables to connect between the mounting module to the driving module, making integration convenient.



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Caution Electrostatic Sensitivity



- Never touch laser diode and the module using hands
- Always use protections when handle a laser diode
- Recommend mounting the laser diode using an ionic gun and ESD finger cots



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.