

# Multimode Fiber Coupled Laser Source



Agiltron Fiber Pigtailed Laser Diode Modules feature low noise, high coupling efficiency and high reliability. They cover wide range of wavelength from VIS to IR with output power between a few mW to several ten mW. They provide the choice of single mode, multimode and polarization maintaining fibers.

Agiltron also provide customers design fiber pigtailed laser diode, including VCSEL and TO-CAN laser diode.

## Features

- Compact
- Ultra-Stable
- Low Cost
- High Reliability
- High Efficiency

## Applications

- R&D Applications
- Instrumentations
- Sensors

## Specifications

Wavelength (nm)			Typical Power (mW)	Spectral Width (nm)	Laser Type
Minimum	Typical	Maximum			
395	405	415	20	1	FP
440	445	450	10	1	FP
630	633	635	10	1	FP
632	635	638	1	0.5	FP
650	660	670	10	1	FP
750	760	770	3	0.5	FP
770	775	780	10	1	FP
770	780	785	10	1	FP
800	810	820	10	2.5	FP
810	820	830	10	2.5	FP
840	850	860	20	2	FP

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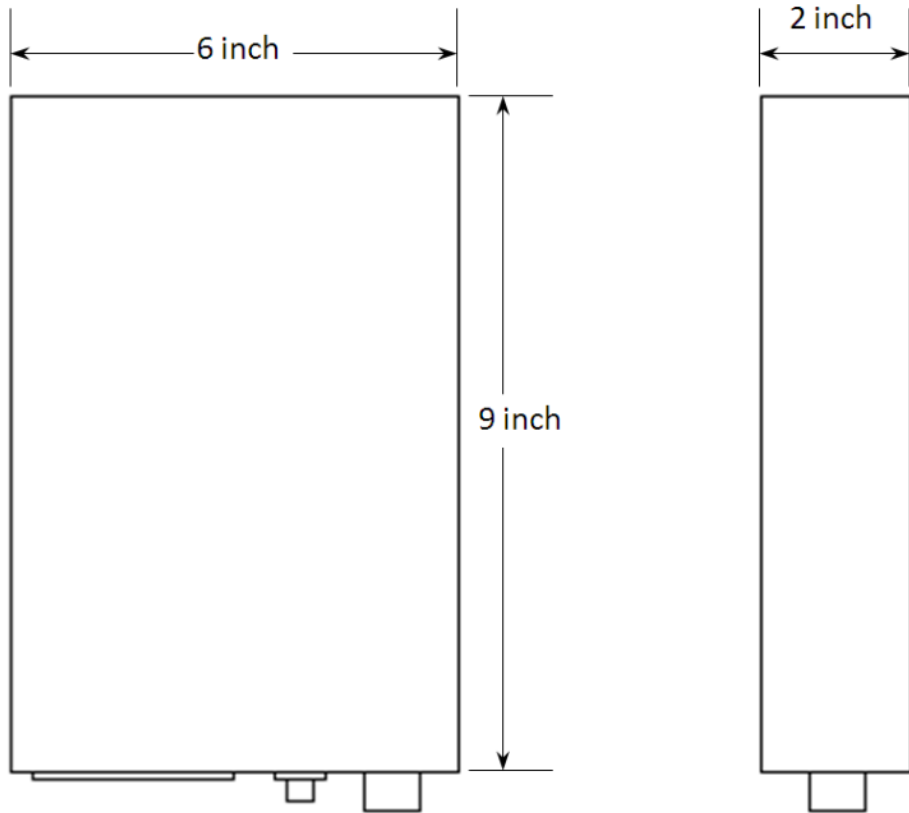
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### Mechanical Dimensions



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

### Ordering Information

Prefix	Package	Wavelength	Laser Type	Fiber Type	Optical Power	Connector
PLMM-	Standard = 1 Special = 0	405 nm = 0405 445 nm = 0445 633 nm = 0633 635 nm = 0635 660 nm = 0660 760 nm = 0760 775 nm = 0775 780 nm = 0780 810 nm = 0810 820 nm = 0820 850 nm = 0850	FP = 1	9	< 5mW = 1 < 10mW = 2 < 20mW = 3 < 30mW = 4 Special = 0	FC/PC = 1 FC/APC = 2 LC/PC = 3 ST/PC = 4 SC/PC = 5 SMA = 6 Special = 0

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## Application Notes

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### Fiber Core Alignment

Note that the minimum attenuation for these devices depends on excellent core-to-core alignment when the connectors are mated. This is crucial for shorter wavelengths with smaller fiber core diameters that can increase the loss of many decibels above the specification if they are not perfectly aligned. Different vendors' connectors may not mate well with each other, especially for angled APC.

### Fiber Cleanliness

Fibers with smaller core diameters (<5  $\mu\text{m}$ ) must be kept extremely clean, contamination at fiber-fiber interfaces, combined with the high optical power density, can lead to significant optical damage. This type of damage usually requires re-polishing or replacement of the connector.

### Maximum Optical Input Power

Due to their small fiber core diameters for short wavelength and high photon energies, the damage thresholds for device is substantially reduced than the common 1550nm fiber. To avoid damage to the exposed fiber end faces and internal components, the optical input power should never exceed 20 mW for wavelengths shorter 650nm. We produce a special version to increase the handling by expanding the core side at the fiber ends.