

Red & Green LOW PROFILE
FLAT PACK LASER (FPL)
Laser Diode Modules



NEED A VERY SMALL PROFILE LASER?

BEA Lasers' FPL Industrial Laser Diode Modules stand up to the most demanding conditions.

Ready for virtually unlimited robust applications, this unit is built to take extreme abuse in the toughest jobs, and small enough to fit in a very tight spaces.



Applications:

- | | |
|----------------------|-------------|
| Small Parts Assembly | Alignment |
| Robotic Assembly | Targeting |
| Medical | Positioning |
| Drilling | Riveting |

Light from green lasers is 7 times more visible to the human eye than red laser light!

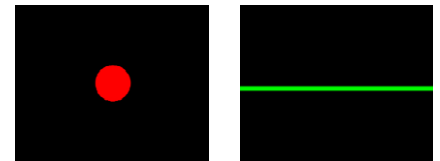
If you have high ambient light conditions, green laser diode modules are the choice for you.

The compact Aluminum heat sink body has two different mounting options. Mounting to a flat surface with two mounting holes (3.57mm / 9/16") in the base, or using the 1/4-20 mounting hole in the center of the base.

When paired with BEA Lasers Diffractive Optical Elements, our Flat Pack Laser Diode Modules will aid in targeting, alignment and positioning applications.

The complete package includes the Flat Pack Laser (FPL), a M8 connector cable assembly and a power supply. The straight cable is standard, but a 90 degree cable is available. Also the power supply is offered in an alternate 12/24VDC-5VDC package. The FPL laser can also be modified with different connectors and color laser diodes, please call for details.

Dot or Line Pattern



Flat Pack Laser Diode Modules are available in **Green (520nm)** or **Red (635nm)** colors.

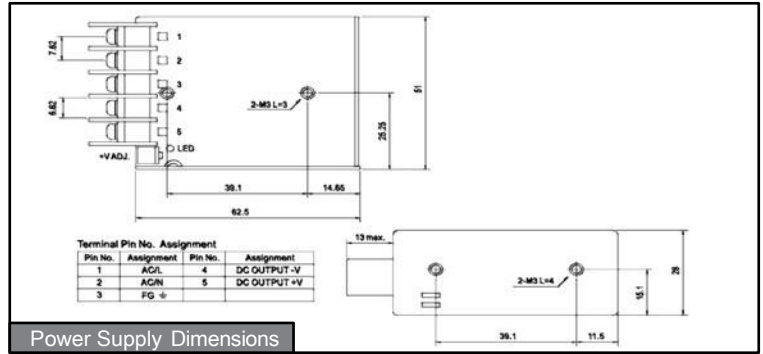
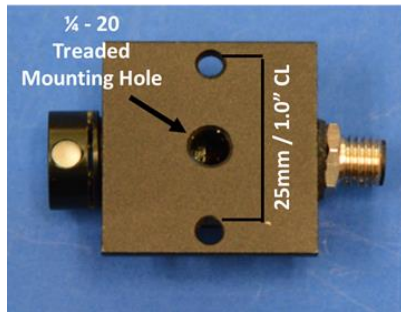
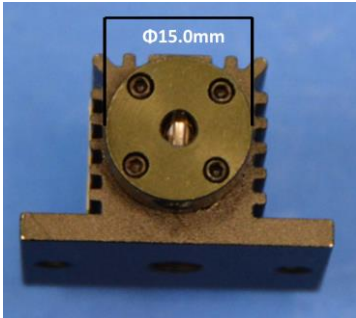
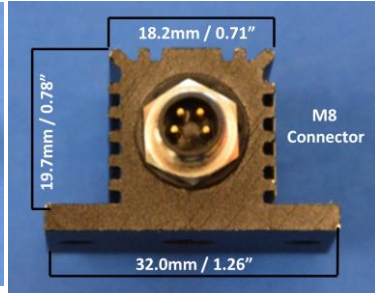
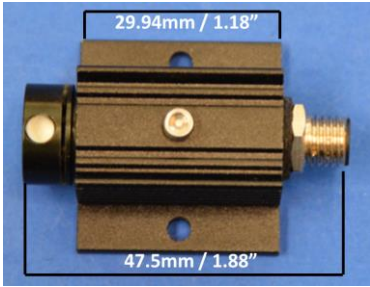
BEA's Laser Diode Modules are factory-set to FDA-Approved Power Levels (<5mw, class IIIa) to comply with Section 21 DFR Part 1040.10-11.



A Division of BEA Electro Sales

1400 Howard Street
 Elk Grove Village, IL
 60007

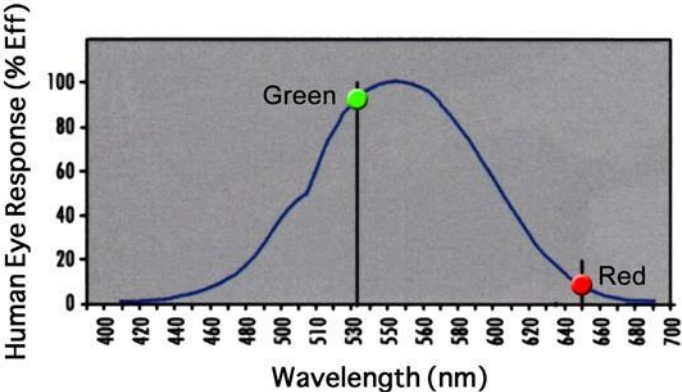
PHONE: (847) 238-1420
www.bealasers.com



Model Numbers:
Contact BEA Lasers for Full Model Number Information

GREEN LASERS vs. RED LASERS

Green laser light is significantly brighter than red laser light. All other factors being equal, the unaided human eye will perceive green laser light as over 8 times brighter than the common red laser (at 650nm). Green lasers are being adopted as a replacement for red lasers. Along with increased visibility, many OEMs are enjoying the benefits of offering green lasers as a premium option.



Optical		
Output Power (mW)	1, 3, 5	1, 3, 5
Wavelength (nm)	635 (Red Laser)	520 (Green Laser)
Class	IIIa	IIIa
Lens	Plastic	Glass
Focus	Fixed	Fixed
Operation Mode	Continuous Wave	Continuous Wave
Spectral Line width (nm)	<0.1	<0.1
Beam Diameter, 1/e ² (mm)	<1	<1.5
Beam Divergence (mrad)	0.8	<1.4
Output Power Stability for 1 hour	<±5% (typical 1%)	<±5% (typical 1%)
Electrical/Mechanical		
Operating Voltage (VDC)	3 - 5	3 - 5
Operating Current (mA)	<30	<150
Circuit Design	Auto Power Control	Auto Power Control
Lead Length	6.5' / 2M	
Housing Material	Alu	
Length (mm)	1.93 inches / 71 mm	
Body Diameter (mm)	1.26 inches / 88mm	
MTTF (hrs)*	>5,000	
DIN Rail Power Supply		
Rated Input Voltage	83 Vac ~ 230 Vac	
DCON indicate (Green LED)	>3V	
Current Range	0-3A	
Humidity	20%~90%RH	
MAX. Required Free Space	25mm on all sides	
UL/cUL	UL 60950-1 / TUV 60950-1AP	

WARNING: Laser Beams and Hazards

Lasers produce an intense, highly directional beam of light. If directed, reflected or focused upon an object, laser light will be partially absorbed, raising the temperature of the surface and/or the interior of the object, potentially causing an alteration or deformation of the material. Lasers can also cause tissue damage. However, lower-power lasers may emit levels of laser light that are not a hazard.