Red & Green **RUGGEDIZED** Industrial Laser Diode Modules

# NEED A TOUGHER LASER

LASERS

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

Ready for virtually unlimited heavy-duty applications, this unit is built to take extreme abuse in the toughest jobs.



	Applications:	
Metal-forming Drilling Punch Presses	Heavy Duty Saws Welding Alignment	

Targeting Positioning Riveting

With a stainless steel, black zinc-plated case and a steel mounting lock-nut, the unit may be panel- or bracketmounted and used in the heaviest equipment applications. The ruggedized Industrial Laser Diode Module is built to withstand liquids (water resistant), vibration, chemicals, impact and dust.

The complete package includes the ruggedized laser module, a connector cable assembly and a DIN railmounted power supply. Mounting brackets and other styles of cables are available, including straight, right-



angle (shown at left) and right-angle cable with LED "Power On" Indicator. Our modules are also available with industry-standard, fully threaded, stainless steel sensor body.

Ruggedized Industrial Laser Diode Modules are available in Green (532nm) or Red (650nm) colors.

### Green: MIL301GHD | Red: MIL301RHD

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.

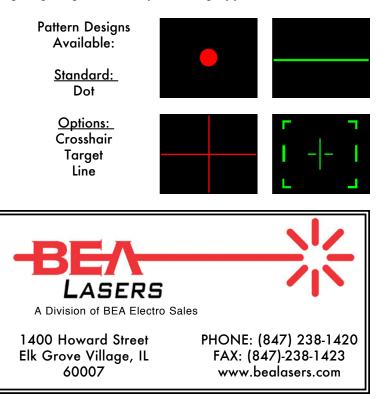


Complete System: Laser, Cable, Power Supply

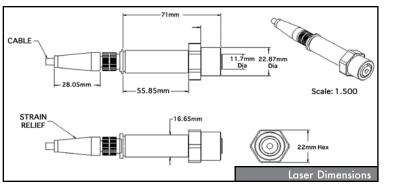
Light from green lasers is 7 times more visible to the human eye than red laser light!

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

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







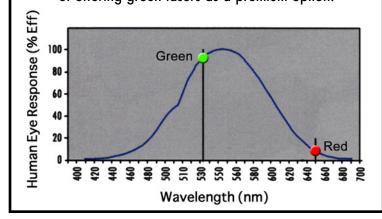


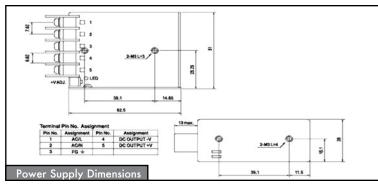
## GREEN LASERS vs. RED LASERS

Optional Mounting

**Brackets Available** 

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.





Lasers

#### Model Numbers:

#### Contact BEA Lasers for Full Model Number Information

Optical			
Output Power (mW)	1,3,5	1,3,5	
Wavelength (nm)	650 (Red Laser)	532 (Green Laser)	
Class	IIIa	Illa	
Lens	Plastic	Glass	
Focus	Adjustable	Fixed	
Operation Mode	Continuous Wave	Continuous Wave	
Spectral Line width (nm)	<0.1	٥.1	
Beam Diameter, 1/e²(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	3	
Operating Current (mA)	<30	<300	
Circuit Design	Auto Power Control	Auto Power Control	
Lead Length	6.5'/2M		
Housing Material	Black, Zinc-Coated Stainless Steel		
Length (mm)	2.795 inches / 71mm		
Body Diameter (mm)	.678 inches / 16.65 mm		
MTTF (hrs)*	>5,000		
DIN Rail Power Supply			
Rated Input Voltage	83 Vac ~ 230 Vac		
DC ON 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.