

## **DLC PN** **5T1322-0003.1**

### **Description**

Laser Module; 0.75"; Industrial; 45 Deg. Line; 520nm; Class II; Continuous Wave; M12 Connector; 24VDC; RoHS

### **Laser Classification**

Class II Laser Product

### **Key Features**

- 12 to 24 Volt Operation
- Laser Projection Type
  - Gaussian Line
- Wavelength
  - 520 nm
- Continuous Wave
- Hard anodized case
- Electrically isolated diode
- Custom drive circuit
  - Photodiode feedback
  - Optical power stability over device lifetime
- Advanced Thermal Management
- IP67 Environmentally sealed package
- Sapphire output window with BBAR coating
- ESD and reverse polarity protection
- Industrial Standard M12 Connector



Diode Laser Concepts, Inc. has an extensive portfolio of laser devices. Laser mounting and positioning fixtures are also available. For additional options and information, please contact us at [www.diodelaserconcepts.com](http://www.diodelaserconcepts.com).

**Optical Specifications (At Case Temperature of 25°C)**

Specifications	Min.	Typ.	Max.	Units
Wavelength <sup>1</sup>	510	515	530	nm
Wavelength Stability <sup>1,2</sup>	-	0.25	-	nm/°C
Optical Power <sup>3</sup>	3.00	3.45	3.90	mW
Optical Power Stability (Pk-Pk) <sup>1,4</sup>	-	-	5	%
Optical Power (Pk-Pk) over Temperature Range <sup>1,5</sup>	-	-	5	%
Beam Propagation <sup>6</sup>	Collimated Line			
Fan Angle	-	44	-	°
Line Thickness <sup>1</sup>	-	1.5	-	mm
Line Intensity Profile	Resembles Gaussian			
Pointing Accuracy <sup>7</sup>	-	-	5	mrad
Window	Sapphire			
Emission Indicator	LED			

**1.** Based on design.

**2.** For stabilized laser conditions at case temperatures within operating temperature range.

**3.** Total Output Power measured at the face.

**4.** Measured at working condition power at face

**5.** For stabilized laser conditions at case temperatures from 0°C to 45°C relative to working condition power at face (25°C case temperature).

**6.** Collimated beam using DLC standard metrology.

**7.** Angular measurement from mechanical axis.

**Electrical Specifications (At Case Temperatures of 25°C)**

Specifications	Min.	Typ.	Max.	Units
Operating Voltage	10	-	26	VDC
Load Current <sup>1,2</sup>	-	25	40	mA
Case	Electrically Isolated			
Operation Mode	Continuous Wave			
Interconnect	M12 Connector			
Electronic Protection	Surge Protection Static Discharge Immunity ( $\geq 4\text{kV}$ [contact]) Reverse Polarity Protection			

**1.** Based on design.

**2.** For stabilized laser conditions at case temperatures within operating temperature range.

## Mechanical Drawing

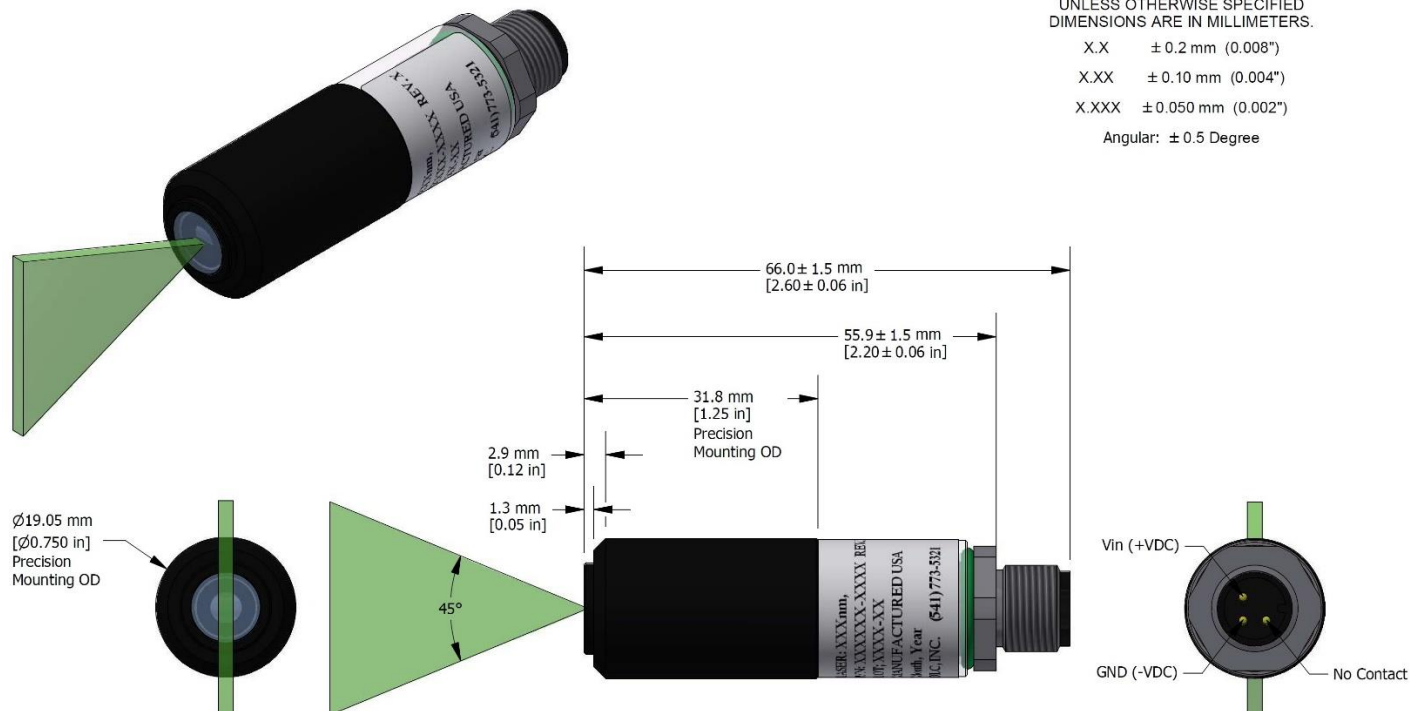
UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN MILLIMETERS.

X.X  $\pm 0.2$  mm (0.008")

X.XX  $\pm 0.10$  mm (0.004")

X.XXX  $\pm 0.050$  mm (0.002")

Angular:  $\pm 0.5$  Degree




**DO NOT SCALE**  
**CONTENTS OF PN LABEL MAY NOT BE ACCURATE**

### Environmental Specifications

Specifications	Min.	Typ.	Max.	Units
Operating Temperature <sup>1, 2</sup>	-15	-	55	°C
Storage Temperature <sup>2</sup>	-40	-	85	°C
IP67 Environmental Protection	Hard Anodized Case, Sapphire Optical Window, Clear Lexan® Rear Cover, M12 Connector			
<div><div>1.</div>Refers to module's case temperature.</div> <div><div>2.</div>Based on design.</div>				

### Reliability / Regulatory Specifications

Certifications	CE, RoHS Compliant, CDRH
Laser Safety Label	
Warranty	Two Year
Laser Lifetime <sup>1,2</sup>	10000 Hours
<sup>1.</sup> For reference only. <sup>2.</sup> When operated in CW mode with a case temperature of 25°C.	

### Testing / Data Sheets / Labeling

Thermal Bake Requirements	None
Operational Burn-In Requirements	None
Lot Data Report Requirements	None
Identification Labeling <sup>1</sup>	Serialized Identification Label
<sup>1.</sup> Refer to mechanical drawing for placement of labeling.	