

632.8nm, 55mW Free Space Frequency Stabilized Laser Diode



632.8nm Frequency Stabilized Laser Diodes (Free Space and Fiber-Coupled options shown)

Stock **#33-045** **2 In Stock**

⊖ 1 ⊕ €6.900⁰⁰

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Qty 1+	€6.900,00 each
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General

2.00 **Warm-Up Time (minutes):**

1.5 - 2 (Output Beam) **Aspect Ratio:**

Diode **Type of Laser:**

IIIb **Laser Class - CDRH:**

Physical & Mechanical Properties

71.0 L x 63.5 W x 19.8 H **Dimensions (mm):**

135.00 **Weight (g):**

<50 (8 Hours) **Pointing Stability (μrad):**

Optical Properties

100:1 Linear **Polarization:**

632.80 **Wavelength (nm):**

1.1 (Horizontal)
1.2 (Vertical) **Mode Quality, M²:**

±0.5 **Wavelength Tolerance (nm):**

0.8 x 1.6 **Beam Diameter (mm):**

Typical: 10 **Spectral Line Width (MHz):**

±0.002 **Beam Stability (nm):**

1.3 x 0.8 **Beam Divergence (mrad):**

Red **Color:**

Electrical

55 **Output Power (mW):**

1.00 **Power Stability (%):**

Max 5 **Power Consumption (W):**

±10 **Output Power Tolerance (%):**

10 Hz - 100 MHz 0.2% RMS **Noise Level:**

Max 2 @ 3.3 V **Input Current (A):**

Hardware & Interface Connectivity

10-pin Connectors (cable provided upon request) **Electrical Leads/ Pin Connections:**

USB **Computer Interface:**

Free Space **Output Type:**

Environmental & Durability Factors

+15 to +40 **Operating Temperature (°C):**

5 - 95% (non-condensing) **Operating Humidity:**

Regulatory Compliance

[View](#) **Certificate of Conformance:**

Product Details

- Single Longitudinal Mode (SLM) Performance
- ±0.002nm Wavelength Stability
- Very Low Power Consumption

632.8nm Frequency Stabilized Laser Diodes are ideal for typical HeNe laser applications including flow cytometry, interferometry, confocal microscopy, fluorescence excitation, and Raman spectroscopy. Whereas a comparable HeNe laser would be larger, more expensive, and consume more power, the 632.8nm Frequency Stabilized Laser Diodes feature more compact designs, ±0.002nm wavelength stability, and either greater than 60mW power (free-space model) or greater than 20mW power (fiber coupled model). Additionally, these lasers utilize Variable Bragg Gratings (VBG) to lock the 632.8nm wavelength to a 10MHz linewidth.