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# Coherent® BioRay™ Laser 1264214 | 450nm, 50mW

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- 1 + C\$3,976<sup>00</sup>

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**Note:** This item requires accessories for use | [Learn More](#)

#### Product Downloads



#### General

5 W Max **Heat Dissipation of Laser Head:**

Coherent® **Manufacturer:**

Diode **Type of Laser:**

IIIb **Laser Class - CDRH:**

1264214 **Model Number:**

## Physical & Mechanical Properties

<70 **Weight (g):**

<10 **Pointing Stability ( $\mu\text{rad}/^\circ\text{C}$ ):**

95.00 **Length (mm):**

## Optical Properties

TEM<sub>00</sub> **Spatial Mode:**

450.00 **Wavelength (nm):**

<1.5 **Mode Quality, M<sup>2</sup>:**

$\pm 10$  **Wavelength Tolerance (nm):**

<3 **Output Beam Angle (mrad):**

$\pm 5$  **Beam Waist Position at Exit (mm):**

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

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

Blue **Color:**

## Electrical

160 max @ 25°C **Operating Current (mA):**

50 **Output Power (mW):**

<2% (8 hours,  $\pm 3^\circ\text{C}$ ) **Power Stability (%):**

Max Analog: 500  
Rise Time (10% to 90%): <500 nsec  
Fall Time (10% to 90%): <500 nsec **Modulation Frequency (kHz):**

Level 4 **ESD Protection:**

20 Hz - 20 MHz <0.5%  
20 Hz - 20 MHz peak-to-peak: <1% **RMS Noise:**

## Hardware & Interface Connectivity

Power Supply Required and Sold Separately.  
USA: [#86-878](#)  
Europe: [#86-878](#)  
Japan: [#86-878](#)  
Korea: [#86-878](#)  
China: [#86-878](#) **Power Supply:**

Free Space **Output Type:**

5 - 24 **Input Voltage (V):**

## Threading & Mounting

Included **Mount:**

## Environmental & Durability Factors

15 to 40 **Operating Temperature ( $^\circ\text{C}$ ):**

-20 to +60 **Storage Temperature ( $^\circ\text{C}$ ):**

30 G **Shock Rating:**

## Regulatory Compliance

Exempt **RoHS 2015:**

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- External Focus with up to 100mW Output Power
- Auto Scaling Input Power 5 - 24VDC with Reverse Polarity Protection
- Built-In Microcontroller for Fault Monitor
- [Coherent® StingRay™ Developer's Kit](#) also available

Coherent® StingRay™ and BioRay™ Laser Diode Modules are ideal for a variety of alignment, machine vision, and biomedical applications. They are available in a wide range of output powers, wavelengths, and fan angles. High precision optical components and sophisticated drive electronics provide power and control to your application, reducing signal-to-noise ratios and increasing measurement speed. Coherent® StingRay™ and BioRay™ Laser Diode Modules are designed with a flat top power distribution across the beam profile for consistency in line projection widths.

**Note:** For CDRH certified systems (Class IIIb), [#86-878](#) Laser Controller and additional external voltage source (0.5–5V) with BNC connector is required.