

# MaxxPower

By Oxxius

<b>Product range</b>	High-Power Diode Modules
<b>Product name</b>	MaxxPower 638 nm
<b>Reference</b>	LBX-638
<b>Description</b>	<p>The MaxxPower LBX-638 is a compact 638 nm laser source that exhibits the highest optical power over an industry-standard 100×40 mm footprint. Its robust design, complete with readily available safety features makes it well-suited for both laboratory and industrial use.</p> <p>This model is a trusted solution for illumination or wide-field microscopy. Key features</p> <ul style="list-style-type: none"> <li>• ±1.0% long-term power stability; low optical noise</li> <li>• Modulation up to 1 MHz</li> <li>• Integrated control electronics Fully compatible with Oxxius MixxWave combiners for multi-mode fiber delivery in conjunction with other laser lines.</li> </ul>



## Product Variations

Part Number	Power
LBX-638-1100-HPE-PPA	1100mW

## Optical Characteristics

<b>Emission wavelength</b>	638 nm
<b>Tolerance</b>	(±5nm tolerance)
<b>Control modes</b>	Automated power control (APC), Automated current control (ACC)
<b>Optical noise</b>	≤ 0.2% rms, 10Hz-20MHz bandwidth
<b>Spectral linewidth</b>	≤ 2nm
<b>Analog modulation function - Rise / fall time</b>	≤ 500ns
<b>Analog modulation function - Bandwidth</b>	≥ 1MHz
<b>Beam diameter, 1/e<sup>2</sup> level, 50mm from the beam aperture</b>	4.5 x 4.5mm
<b>Beam divergence, 1/e<sup>2</sup> level full beam, far field</b>	3 x 0.2mrad

## General Specifications

<b>Supply voltage</b>	5V to 12V
<b>Operating temperature</b>	10°C to 50°C
<b>Storage temperature and humidity</b>	0°C to 60°C
<b>Warm up time</b>	≤2 minutes
<b>Interfaces</b>	USB, RS-232, direct modulation inputs
<b>Dimensions (laser head)</b>	100x40x40 mm
<b>Weight (laser head)</b>	≤330 g
<b>Controller dimensions</b>	106x126x56 mm
<b>Compliance</b>	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
<b>Laser class</b>	4
<b>Warranty</b>	24 months or 5000 hours, whichever occurs first

## Options

Multimode fiber coupling
Heat management
Band-pass filter
OEM version

Oxxius has a policy of continuous product improvement. Specifications may change without notice.