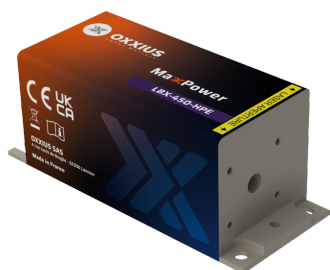


# MaxxPower

By Oxxius

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product range</b> | High-Power Diode Modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Product name</b>  | MaxxPower 450 nm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Reference</b>     | LBX-450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>   | <p>The MaxxPower LBX-450 is a compact 450 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, atom pumping or wide-field microscopy. Key features</p> <ul style="list-style-type: none"> <li>• <math>\pm 1.0\%</math> 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-450-650-HPE-PPA  | 650mW  |
| LBX-450-1200-HPE-PPA | 1200mW |

## Optical Characteristics

|                                                                          |                                                                |
|--------------------------------------------------------------------------|----------------------------------------------------------------|
| <b>Emission wavelength</b>                                               | 450 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>                     | ≤ 200ns                                                        |
| <b>Analog modulation function - Bandwidth</b>                            | ≥ 1MHz                                                         |
| <b>Beam diameter, 1/e<sup>2</sup> level, 50mm from the beam aperture</b> | 2.6 x 0.7mm                                                    |
| <b>Beam divergence, 1/e<sup>2</sup> level full beam, far field</b>       | 0.2 x 4.0mrad                                                  |

## General Specifications

|                                         |                                                         |
|-----------------------------------------|---------------------------------------------------------|
| <b>Supply voltage</b>                   | 9V 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>Controler 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 10000 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.*