

# MaxxPower

By Oxxius

|                    |  |
|--------------------|--|
| <b>Gamme</b>       | High-Power Diode Modules   |
| <b>Title</b>       | MaxxPower 520 nm   |
| <b>Reference</b>   | LBX-520  |
| <b>Description</b> | <p>The MaxxPower LBX-520 is a compact 520 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. This model is a trusted solution for illumination or wide-field microscopy.</p> <p>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</li></ul> <p>Fully compatible with Oxxius MixxWave combiners for multi-mode fiber delivery in conjunction with other laser lines.</p> |

## Product Variations

| Part Number         | Puissance |
|---------------------|-----------|
| LBX-520-800-HPE-PPA | 800mW     |

## Optical Characteristics

|   |  |
|---|--|
| <b>Emission wavelength</b>  | 520 nm   |
| <b>Tolerance</b>  | ( $\pm 5$ nm tolerance)  |
| <b>Control modes</b>  | Automated power control (APC), Automated current control (ACC) |
| <b>Optical noise</b>  | $\leq 0.2\%$ rms, 10Hz-20MHz bandwidth                         |
| <b>Spectral linewidth</b>   | $\leq 2$ nm  |
| <b>Analog modulation function - Rise / fall time</b>                        | $\leq 200$ ns  |
| <b>Analog modulation function - Bandwidth</b>                               | $\geq 1$ MHz   |
| <b>Beam diameter, <math>1/e^2</math> level, 50mm from the beam aperture</b> | 2.7 x 0.8mm  |
| <b>Beam divergence, <math>1/e^2</math> level full beam, far field</b>       | 0.2 x 2.6mrad  |

## 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>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 10000 hours, whichever occurs first        |

## Options

|                 |                          |
|-----------------|--------------------------|
| <b>Option 1</b> | Multimode fiber coupling |
| <b>Option 2</b> | Heat management          |
| <b>Option 3</b> | Band-pass filter         |
| <b>Option 4</b> | OEM version              |