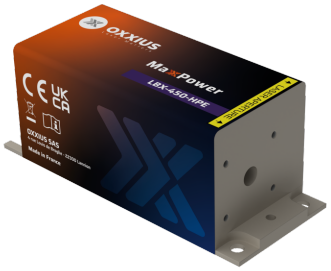
MaxxPower

By Oxxius

Product range	High-Power Diode Modules
Product name	MaxxPower 450 nm
Reference	LBX-450
Description 	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. This model is a trusted solution for illumination, atom pumping or wide-field microscopy. **Key features** • ±1.0 % long-term power stability; low optical noise • Modulation up to 1 MHz • Integrated control electronics Fully compatible with Oxxius MixxWave combiners for multi-mode fiber delivery in conjunction with other laser lines.

Product Variations

Part Number	Power
LBX-450-650-HPE-PPA	650 mW
LBX-450-1200-HPE-PPA	1200 mW

Optical Characteristics

Emission wavelength	450 nm
Tolerance	(±5 nm tolerance)
Control modes	Automated power control (APC), Automated current control (ACC)
Optical noise	≤0.2% rms, 10 Hz-20 MHz bandwidth
Spectral linewidth	≤2 nm
Analog modulation function - Rise / fall time	≤200 ns
Analog modulation function - Bandwidth	≥1 MHz
Beam diameter, 1/e² level, 50mm from the beam aperture	2.6 x 0.7 mm
Beam divergence, 1/e² level full beam, far field	0.2 x 4.0 mrad

General Specifications

Supply voltage	9 V to 12 V
Operating temperature	10 °C to 50 °C
Storage temperature and humidity	0 °C to 60 °C
Warm up time	≤2 minutes
Interfaces	USB, RS-232, direct modulation inputs
Dimensions (laser head)	100x40x40 mm
Weight (laser head)	≤330 g
Controler dimensions	106x126x56 mm
Compliance	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
Laser class	4
Warranty	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.