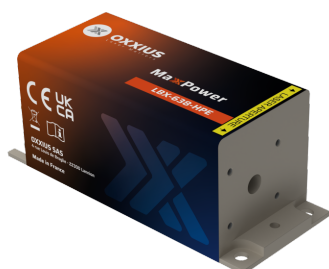


Gamme	High-Power Diode Modules
Title	MaxxPower 638 nm
Reference	LBX-638
Description	The MaxxPower LBX-638 is a compact 638 nm laser source that exhibits the highest optical power over an industry-standard 100×40 mm footprint. Its robust design, complete with readily available safety features makes it well-suited for both laboratory and industrial use. This model is a trusted solution for illumination or wide-field microscopy. Key features • $\pm 1.0\%$ 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	Puissance
LBX-638-1100-HPE-PPA	1100mW

Optical Characteristics

Emission wavelength	638 nm
Tolerance	(± 5 nm tolerance)
Control modes	Automated power control (APC), Automated current control (ACC)
Optical noise	$\leq 0.2\%$ rms, 10Hz-20MHz bandwidth
Spectral linewidth	≤ 2 nm

Analog modulation function - Rise / fall time	≤ 500ns
Analog modulation function - Bandwidth	≥ 1MHz
Beam diameter, 1/e² level, 50mm from the beam aperture	4.5 x 4.5mm
Beam divergence, 1/e² level full beam, far field	3 x 0.2mrad

General Specifications

Supply voltage	5V to 12V
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 5000 hours, whichever occurs first

Options

Option 1	Multimode fiber coupling
Option 2	Heat management
Option 3	Band-pass filter
Option 4	OEM version