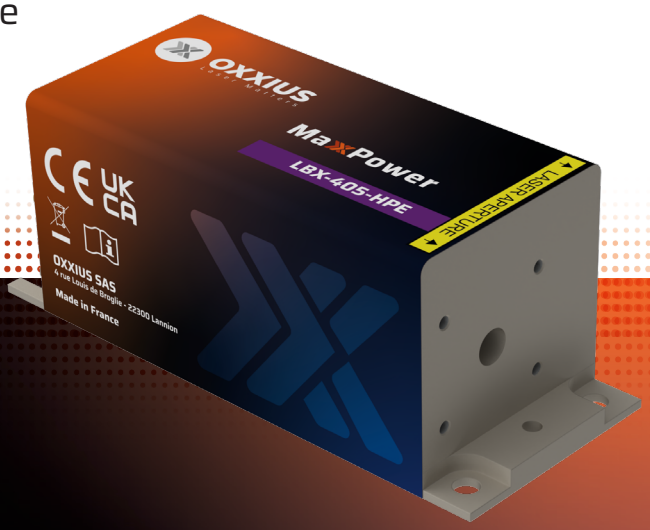
MaxPower

By Oxxius

High Power Lasers

375 nm to 980 nm

Oxxius MaxxPower® deliver outstanding optical power and reliability in free space or through optical fibers.



- Up to 1100 mW
- Elliptical collimated beam
- Compact size
- Integrated control electronics
- Modulation possible up to 1 MHz
- Same interface for all wavelengths

OXXIUS
Laser Matters

www.oxxius.com

Go compact. Stay powerful.

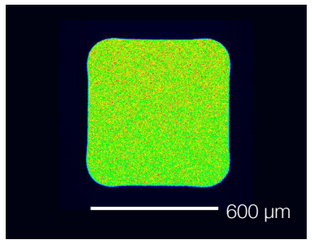
Oxxius
High Power Lasers

At Oxxius, we turn compactness into capability. The MaxxPower series brings together high power, reliability and flexibility, delivering consistent multimode beams. Ready to integrate, ready to perform.

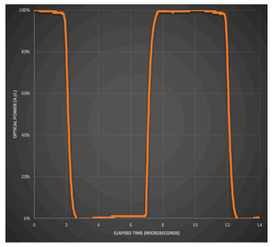
Why Oxxius MaxxPower?

- Continuous-wave, high-power laser output in a compact housing
- Semiconductor laser emitter with **integrated control electronics**
- **Excellent output stability** for consistent performance
- **Fast modulation** capability

Reliable Performances



Power distribution out of a square-core fiber
(LBX-488-1000-HPE)



Modulated output; 5 µs pulses at 100 kHz repetition rate
(LBX-405-1200-HPE)

Combine up to 4 or 6 wavelengths by selecting your MaxxPower® lasers

Harness multiple wavelengths in a single, powerful beam

MixxWave
By Oxxius

A single laser beam combining multiple wavelengths is now essential for many applications. The MixxWave combiner is built for this need: a customizable source integrating multiple MaxxPower modules, delivering collinear multi-wavelength beams either fiber-coupled or in free space.

Available Options

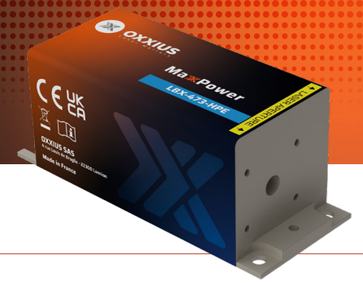
- Multimode Fiber Coupling
- Heatsink
- Customized Beam Shape
- Band-Pass Filter

Applications at a Glance

MaxxPower® is the ideal choice for a wide range of life science and industrial applications:

- Illumination
- Wide-field microscopy
- Fluorescence excitation
- Semiconductor inspection
- Photoluminescence
- Laser pumping
- Additive manufacturing
- Polymer curing

Optical specifications



Laser specifications

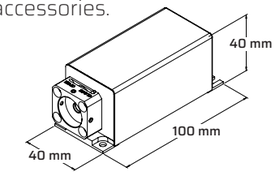
	LBX-375	LBX-405	LBX-425	LBX-450	LBX-473	LBX-488	LBX-520	LBX-638	LBX-750	LBX-785	LBX-830	LBX-940	LBX-980
Central wavelength (Tolerance)	375 nm (±5 nm)	405 nm (±5 nm)	425 nm (±5 nm)	450 nm (±10 nm)	473 nm (±5 nm)	488 nm (±5 nm)	520 nm (±10 nm)	638 nm (±10 nm)	750 nm (±5 nm)	785 nm (±5 nm)	830 nm (±5 nm)	940 nm (±10 nm)	980 nm (±10 nm)
CW Output power (mW)	200 400	900 1200	1400	650 1200	1000	1000	800	1100	1200	800	1200	600	1000
Linewidth (FWHM)	≤ 5 nm												
Power stability over 8 hours, temperature within +/-3°C	±1.0 %												
Control modes	APC	Automatic Power Control (APC) and Automatic Current Control (ACC)							ACC				
Power adjustment range	0% to 100%												
Optical noise, 20Hz to 10MHz bandwidth	≤ 0.2% rms												
Beam diameter (at 1/e²)	3.0 x 1.4 mm	2.6 x 1.2 mm	2.6 x 0.7 mm	2.6 x 0.7 mm	2.6 x 1.2 mm	2.2 x 1.2 mm	2.7 x 0.8 mm	4.5 x 4.5 mm	1.9 x 3.8 mm	3.8 x 1.9 mm	5.2 x 2.6 mm	1.9 x 3.8 mm	3.5 x 1.5 mm
Full angle divergence (1/e² level)	1.4 x 2.2 mrad	0.2 x 2.6 mrad	0.2 x 4.0 mrad	0.2 x 4.0 mrad	0.2 x 2.6 mrad	0.2 x 2.6 mrad	0.2 x 2.6 mrad	3 x 0.2 mrad	6 x 0.2 mrad	0.3 x 15 mrad	0.3 x 22 mrad	0.3 x 15 mrad	0.2 x 12 mrad
Analog modulation													
-3dB bandwidth	≥ 1 MHz												
Digital modulation													
Rise/Fall time	≤ 300 ns	≤ 200 ns						≤ 500 ns	≤ 200 ns				
-3dB bandwidth	≥ 1 MHz												
Fiber coupling efficiency	80%												
Fiber core diameter	50 µm or larger									200 µm or larger		105 µm or larger	

Two Configurations. Same Performance.

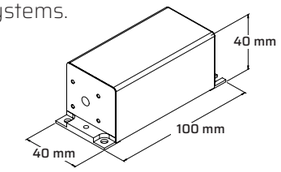
GENERAL SPECIFICATIONS (ALL MODELS)

	End-User Version	OEM Version
Compliance	CE compliant, including 60825-1 FDA 21 CFR 1040.10 and 1040.11	FDA 21 CFR 1040.10 and 1040.11
Operating temperature	10°C to 50°C (baseplate temperature) Refer to "Heat management" for the performance with a heatsink Humidity is non-condensing	
Storage temperature	0°C to 60°C	
Warm-up time	2 minutes	
Supply voltage	110 to 240 VAC	5 V to 12 V DC
Communication	USB, RS-232	

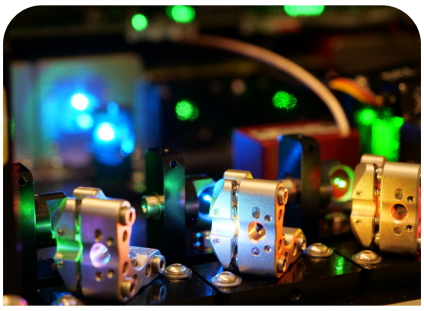
› End-User Version
Ready to operate out of the box. Supplied with controller, power supply, and accessories.



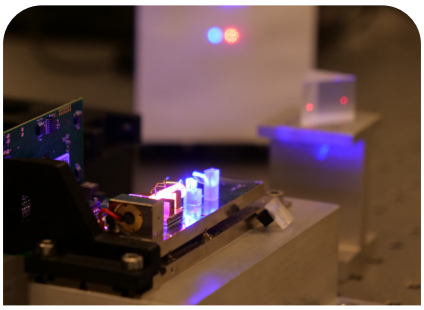
› OEM Version
Designed for seamless integration into larger systems.



When laser matters, innovation happens.



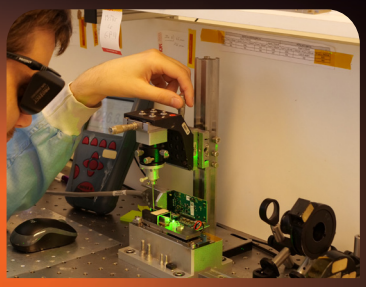
Rely on Oxxius' stable and compact lasers to speed your development in life science, metrology, and industrial applications.



Oxxius develops, designs and delivers powerful, high-performance, spectrally pure visible lasers, built to evolve with your needs.

Our compact, ultra-stable, ISO 9001-certified solutions speed development, simplify integration, and enable breakthroughs in medical diagnostics, research, semiconductor inspection, and more.
Every system is backed by fast iteration, proven reliability and dedicated customer support.

Let's configure the right laser for your application: contact us for technical guidance, lead times and demo options at sales@oxxius.com.



Global sales network

Our distributors are worldwide, making Oxxius products easy to access wherever you are.
See the full list of partners and locations at www.**oxxius.com**.

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