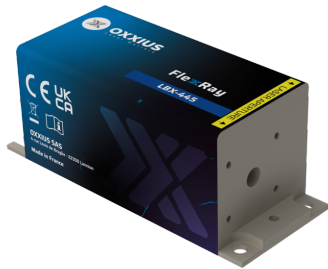


<b>Gamme</b>	CW & Modulated Lasers
<b>Title</b>	FlexxRay 445 nm
<b>Reference</b>	LBX-445
<b>Description</b>	<p>The FlexxRay LBX-445 is a compact 445 nm laser source delivering one of the highest power available on the market over a beam of superior quality, and featuring a high-speed modulation. Its integrated control electronics and robust design suit both laboratory and industrial use. Performance, stability, and versatility make it a trusted solution for fluorescence-based microscopy, flow cytometry and optical pumping.</p> <p>Key features</p> <ul style="list-style-type: none"> <li>• TEM<sub>00</sub> spatial mode</li> <li>• <math>\pm 0.5\%</math> long-term power stability; low optical noise</li> <li>• Modulation up to 150 MHz</li> <li>• Integrated control electronics</li> <li>• 100×40 mm industry-standard footprint</li> </ul> <p>Fully compatible with Oxxius MixxWave combiners for single-mode fiber delivery alongside other laser lines.</p>



## Product Variations

Part Number	Puissance
LBX-445-100-CSB-PPA	100mW
LBX-445-500-CSB-PPA	500mW

## Optical Characteristics

<b>Emission wavelength</b>	445 nm
<b>Tolerance</b>	( $\pm 5$ nm tolerance)

<b>Power stability over 8 hours, temperature within <math>\pm 3^{\circ}\text{C}</math></b>	100mW
<b>Control modes</b>	Automated power control, Automated current control
<b>Optical noise</b>	$\leq 0.2\%$ rms, 10Hz-20MHz bandwidth
<b>Spectral linewidth</b>	$\leq 1.5\text{nm}$
<b>Digital modulation function - Rise / fall time</b>	$\leq 2\text{ns}$
<b>Digital modulation function - Bandwidth</b>	$\geq 150\text{MHz}$
<b>Analog modulation function - Rise / fall time</b>	$\leq 150\text{ns}$
<b>Analog modulation function - Bandwidth</b>	$\geq 3\text{MHz}$
<b>Beam diameter, <math>1/e^2</math> level, 50mm from the beam aperture</b>	$0.7 \pm 0.2\text{mm}$
<b>Beam divergence, <math>1/e^2</math> level full beam, far field</b>	$\leq 1.4\text{mrad}$
<b>Beam quality factor <math>M^2</math></b>	$\leq 1.25$
<b>Beam circularity, far field</b>	$\geq 90\%$
<b>Polarization state</b>	Linear, vertical, extinction ratio $\geq 20\text{dB}$

## General Specifications

<b>Power consumption</b>	10W max.
<b>Supply voltage</b>	5V to 12V
<b>Operating temperature</b>	$10^{\circ}\text{C}$ to $50^{\circ}\text{C}$
<b>Storage temperature and humidity</b>	$0^{\circ}\text{C}$ to $60^{\circ}\text{C}$
<b>Warm up time</b>	$\leq 2$ minutes
<b>Interfaces</b>	USB, RS-232, direct modulation inputs
<b>Dimensions (laser head)</b>	100x40x40 mm
<b>Weight (laser head)</b>	$\leq 330$ 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>	3B, 4
<b>Warranty</b>	24 months or 10000 hours, whichever occurs first

## Options

<b>Option 1</b>	Single-mode fiber coupling
<b>Option 2</b>	Multimode fiber coupling
<b>Option 3</b>	Heat management

<b>Option 4</b>	Electromechanical shutter
<b>Option 5</b>	Band-pass filter
<b>Option 6</b>	OEM version