

# StaxxBeam

By Oxxius

<b>Gamme</b>	Single Frequency Lasers
<b>Title</b>	StaxxBeam 1064 nm (fixed power)
<b>Reference</b>	LCX-1064S (fixed power)
	<p>The StaxxBeam 532 is a compact and powerful 532 nm laser source that delivers a narrow linewidth emission and a spectrum of outstanding purity. Its robust design, complete with readily available safety features makes it well-suited for both laboratory and industrial use. Its proven performance, stability, and versatility make it a trusted solution for laser Raman spectroscopy, interferometry, laser seed, and other applications.</p>
<b>Description</b>	<p>Key features</p> <ul style="list-style-type: none"><li>• Single frequency emission, <math>\leq 1</math> MHz linewidth</li><li>• <math>\leq 1\text{pm}</math> wavelength stability</li><li>• <math>\text{TEM}_{00}</math> spatial mode</li><li>• <math>\pm 1.0\%</math> long-term power stability; low optical noise</li><li>• Integrated control electronics</li></ul> <p>Fully compatible with Oxxius' AOM option, or with MixxWave combiners, in combination with other laser lines.</p>



## Product Variations

Part Number	Puissance
LCX-1064S-100-CSB-PPF	100mW
LCX-1064S-200-CSB-PPF	200mW
LCX-1064S-300-CSB-PPF	300mW
LCX-1064S-500-CSB-PPF	500mW

## Optical Characteristics

<b>Emission wavelength</b>	1064 nm
<b>Tolerance</b>	( $\pm 0.6$ nm tolerance)
<b>Control modes</b>	Automated power control, fixed or adjustable power level
<b>Optical noise</b>	$\leq 0.5\%$ rms, 10Hz-20MHz bandwidth
<b>Spectral linewidth</b>	$\leq 1$ pm
<b>Wavelength stability over 8 hours, temperature within <math>\pm 3^\circ\text{C}</math></b>	$\leq 1$ pm
<b>Wavelength drift over consecutive on/off cycles, temperature within <math>\pm 3^\circ\text{C}</math></b>	$\leq 1$ pm
<b>Coherence length</b>	$\geq 100$ m
<b>Side mode suppression ratio, +/- 0.5nm from the main peak</b>	$\geq 30$ dB
<b>Side mode suppression ratio, +/- 5nm from the main peak</b>	$\geq 60$ dB typ.
<b>Beam diameter, <math>1/e^2</math> level, 50mm from the beam aperture</b>	$0.7 \pm 0.1$ mm
<b>Beam divergence, <math>1/e^2</math> level full beam, far field</b>	$\leq 2$ mrad
<b>Beam quality factor <math>M^2</math></b>	$\leq 1.1$
<b>Beam circularity, far field</b>	$\geq 90\%$
<b>Polarization state</b>	Linear, vertical, extinction ratio $\geq 25$ dB

## General Specifications

<b>Power consumption</b>	20 W max.
<b>Supply voltage</b>	5V 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>	$\leq 10$ minutes
<b>Interfaces</b>	USB, RS-232, direct modulation inputs
<b>Dimensions (laser head)</b>	100x40x32 mm
<b>Weight (laser head)</b>	250 g
<b>Controller dimensions</b>	109x84x30 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
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<b>Option 2</b>	Multimode fiber coupling
<b>Option 3</b>	Heat management
<b>Option 4</b>	Electromechanical shutter
<b>Option 5</b>	Flange
<b>Option 6</b>	Optical Isolator
<b>Option 7</b>	OEM version