

StaxxBeam

By Oxxius

Gamme	Single Frequency Lasers
Title	StaxxBeam 830 nm
Reference	LBX-830S
	<p>The StaxxBeam 830 is a compact and powerful 830 nm laser source that delivers an powerful, narrow linewidth emission over a multimode beam. 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.</p>
Description	<p>Key features</p> <ul style="list-style-type: none">• Single frequency emission, ≤ 100 MHz linewidth• $\leq 10\text{pm}$ wavelength stability• $\pm 1.0\%$ long-term power stability; low optical noise• Integrated control electronics <p>Fully compatible with MixxWave combiners, in combination with other laser lines.</p>



Product Variations

Part Number	Puissance
LBX-830S-100-CIR-PPF	100mW
LBX-830S-450-MM-PPA	450mW
LBX-830S-600-MM-PPA	600mW

Optical Characteristics

Emission wavelength	830 nm
Tolerance	(0.5nm tolerance)

Control modes	Automated current control
Optical noise	$\leq 0.2\%$ rms, 10Hz-20MHz bandwidth
Spectral linewidth	100 pm
Wavelength stability over 8 hours, temperature within $\pm 3^\circ\text{C}$	≤ 10 pm
Wavelength drift over consecutive on/off cycles, temperature within $\pm 3^\circ\text{C}$	≤ 10 pm
Coherence length	n/a
Side mode suppression ratio, +/- 0.5nm from the main peak	≥ 35 dB
Beam diameter, $1/e^2$ level, 50mm from the beam aperture	N/A
Beam divergence, $1/e^2$ level full beam, far field	N/A
Beam quality factor M^2	N/A
Beam circularity, far field	$\geq 90\%$
Polarization state	N/A

General Specifications

Power consumption	10 W max.
Supply voltage	5V to 12V
Operating temperature	20°C to 35°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
Controller dimensions	106x126x56 mm
Compliance	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
Laser class	3B, 4
Warranty	24 months or 5000 hours, whichever occurs first

Options

Option 1	Heat management
Option 2	OEM version