

StaxxBeam

By Oxxius

Gamme	Single Frequency Lasers
Title	StaxxBeam 532 nm (adjustable power)
Reference	L1C-532S (adjustable power)
Description	<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.</p> <p>Its proven performance, stability, and versatility make it a trusted solution for laser Doppler anemometry, Raman and Brillouin spectroscopy, interferometry, zeta-potential measurements, and other applications.</p> <p>Key features</p> <ul style="list-style-type: none">• Single frequency emission, ≤ 1 MHz linewidth• ≤ 1 pm wavelength stability• 0%-100% user-adjustable power• TEM₀₀ spatial mode• $\pm 1.0\%$ long-term power stability; low optical noise• Integrated control electronics <p>Fully compatible with Oxxius' AOM option, or with MixxWave combiners, in combination with other laser lines.</p>



Product Variations

Part Number	Puissance
L1C-532S-50-CSB-MPA	500mW
L1C-532S-100-CSB-MPA	100mW
L1C-532S-150-CSB-MPA	150mW
L1C-532S-200-CSB-MPA	200mW
L1C-532S-300-CSB-MPA	300mW
L1C-532S-500-CSB-MPA	500mW
L1C-532S-800-CSB-MPA	800mW

Optical Characteristics

Emission wavelength	532 nm
Tolerance	(± 0.5 nm tolerance)

Control modes	Automated power control, fixed or adjustable power level
Optical noise	? 0.5% rms, 10Hz-20MHz bandwidth
Spectral linewidth	? 1nm
Wavelength stability over 8 hours, temperature within $\pm 3^{\circ}\text{C}$? 1pm
Wavelength drift over consecutive on/off cycles, temperature within $\pm 3^{\circ}\text{C}$? 1pm
Coherence length	? 100 m
Side mode suppression ratio, +/-0.5nm from the main peak	? 30 dB
Side mode suppression ratio, +/-5nm from the main peak	? 60 dB typ.
Beam diameter, 1/e² level, 50mm from the beam aperture	0.7 \pm 0.1mm (\pm 0.15mm for 500mW and above)
Beam divergence, 1/e² level full beam, far field	? 1.4mrad
Beam quality factor M²	1.1
Beam circularity, far field	? 90%
Polarization state	Linear, vertical, extinction ratio ? 20dB

General Specifications

Power consumption	20 W max.
Supply voltage	7V to 12V
Operating temperature	10°C to 50°C
Storage temperature and humidity	0°C to 60°C
Warm up time	?10 minutes
Interfaces	USB, RS-232, direct modulation inputs
Dimensions (laser head)	120x40x32 mm
Weight (laser head)	?1150 g (up to 300mW) ?1250 g (500mW and above)
Controller dimensions	109x84x30 mm
Compliance	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
Laser class	4
Warranty	24 months or 10000 hours, whichever occurs first

Options

Option 1	Single-mode fiber coupling
Option 2	Multimode fiber coupling
Option 3	Heat management
Option 4	High rate modulation
Option 5	Optical Isolator
Option 6	OEM version