

StaxxBeam

By Oxxius

Gamme	Single Frequency Lasers
Title	StaxxBeam 785 nm (fixed power)
Reference	LSX-785S (fixed power)
Description	<p>The StaxxBeam 785 is a compact and powerful 785 nm laser source that delivers an isolated, narrow linewidth emission. 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 Raman spectroscopy, interferometry, and dynamic light scattering.</p> <p>Key features</p> <ul style="list-style-type: none">• Single frequency emission, ≤ 100 MHz linewidth• ≤ 10 pm wavelength stability• ≤ 1 m coherence length• $\pm 1.0\%$ 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
LSX-785S-150-ISO-PPF	150mW

Optical Characteristics

Emission wavelength	785 nm
Tolerance	(0.5nm tolerance)
Control modes	Automated current control
Optical noise	$\leq 0.2\%$ rms, 10Hz-20MHz bandwidth
Spectral linewidth	≤ 100 MHz
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	≤ 1 m
Side mode suppression ratio, +/-0.5nm from the main peak	\geq dB
Beam diameter, $1/e^2$ level, 50mm from the beam aperture	0.5 ± 0.1 mm

Beam divergence, 1/e² level full beam, far field	? 3.1mrad
Beam quality factor M²	? 1.25
Beam circularity, far field	? 90%
Polarization state	Linear, 45° azimuth ±5°

General Specifications

Power consumption	10W 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)	120x40x40 mm
Weight (laser head)	?330 g
Controller dimensions	109x84x30 mm
Compliance	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
Laser class	3B
Warranty	24 months or 5000 hours, whichever occurs first

Options

Option 1	Single-mode fiber coupling
Option 2	Multimode fiber coupling
Option 3	Heat management
Option 4	Electromechanical shutter
Option 5	Flange
Option 6	OEM version