

<b>Gamme</b>	Single Frequency Lasers
<b>Title</b>	StaxxBeam 785 nm (fixed power)
<b>Reference</b>	LSX-785S (fixed power)
<b>Description</b>	<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><b>Key features</b></p> <ul style="list-style-type: none"> <li>• Single frequency emission, <math>\approx 100</math> MHz linewidth</li> <li>• <math>\approx 10</math> pm wavelength stability</li> <li>• <math>\approx 1</math> m coherence length</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
LSX-785S-150-ISO-PPF	150mW

## Optical Characteristics

<b>Emission wavelength</b>	785 nm
<b>Tolerance</b>	(0.5nm tolerance)
<b>Control modes</b>	Automated current control
<b>Optical noise</b>	$\approx 0.2\%$ rms, 10Hz-20MHz bandwidth
<b>Spectral linewidth</b>	$\approx 100$ MHz
<b>Wavelength stability over 8 hours, temperature within <math>\pm 3^\circ\text{C}</math></b>	$\approx 10$ pm
<b>Wavelength drift over consecutive on/off cycles, temperature within <math>\pm 3^\circ\text{C}</math></b>	$\approx 10$ pm
<b>Coherence length</b>	$\approx 1$ m
<b>Side mode suppression ratio, <math>\pm 0.5</math> nm from the main peak</b>	$\approx >=$ dB
<b>Beam diameter, <math>1/e^2</math> level, 50mm from the beam aperture</b>	$0.5 \pm 0.1$ mm

Beam divergence, 1/e <sup>2</sup> level full beam, far field	? 3.1mrad
Beam quality factor M <sup>2</sup>	? 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