

StaxxBeam

By Oxxius

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| Gamme | Single Frequency Lasers |
| Title | StaxxBeam 785 nm (fixed power) |
| Reference | LSX-785S (fixed power) |
| | <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> |
| Description | <p>Key features</p> <ul style="list-style-type: none">• Single frequency emission, \leq 100 MHz linewidth• \leq 10pm wavelength stability• \geq 1m 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

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| Emission wavelength | 785 nm |
| Tolerance | (0.5nm tolerance) |

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| Control modes | Automated current control |
| Optical noise | $\leq 0.2\%$ rms, 10Hz-20MHz bandwidth |
| Spectral linewidth | $\leq 100\text{MHz}$ |
| Wavelength stability over 8 hours, temperature within $\pm 3^\circ\text{C}$ | $\leq 10\text{ pm}$ |
| Wavelength drift over consecutive on/off cycles, temperature within $\pm 3^\circ\text{C}$ | $\leq 10\text{ pm}$ |
| Coherence length | $\geq 1\text{ m}$ |
| Side mode suppression ratio, +/- 0.5nm from the main peak | $\geq >= \text{dB}$ |
| Beam diameter, 1/e² level, 50mm from the beam aperture | $0.5 \pm 0.1\text{mm}$ |
| Beam divergence, 1/e² level full beam, far field | $\leq 3.1\text{mrad}$ |
| Beam quality factor M² | ≤ 1.25 |
| Beam circularity, far field | $\geq 90\%$ |
| Polarization state | Linear, 45° azimuth $\pm 5^\circ$ |

General Specifications

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| 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

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

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| Option 6 | OEM version |
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