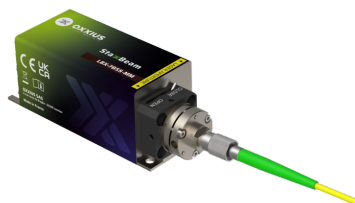


# StaXXBeam

By Oxxius

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product range</b> | Single Frequency Lasers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Product name</b>  | StaxxBeam 785 nm pigtailed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Reference</b>     | LBX-785S pigtailed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>   | <p>The StaxxBeam 785 is a compact and powerful pigtailed 785 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.</p> <p>Its proven performance, stability, and versatility make it a trusted solution for laser Raman spectroscopy. <b>Key features:</b></p> <ul style="list-style-type: none"> <li>• Single frequency emission, <math>\leq 100</math> MHz linewidth</li> <li>• <math>\leq 10</math> pm wavelength stability</li> <li>• <math>\pm 1.0</math> % long-term power stability; low optical noise</li> <li>• Integrated control electronics</li> <li>• Multimode fiber 105/125 <math>\mu\text{m}</math> – FC/APC – 1 m</li> </ul> |



**Caption: LBX-785S MM fibered**

## Product Variations

| Part Number         | Power  |
|---------------------|--------|
| LBX-785S-500-MM-PPA | 500 mW |

## Optical Characteristics

|                                                                                                               |                                         |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Emission wavelength</b>                                                                                    | 785 nm                                  |
| <b>Tolerance</b>                                                                                              | 0.5 nm                                  |
| <b>Control modes</b>                                                                                          | Automated current control               |
| <b>Optical noise</b>                                                                                          | $\leq 0.2$ % rms, 10Hz-20 MHz bandwidth |
| <b>Spectral linewidth</b>                                                                                     | 0.07 nm                                 |
| <b>Wavelength stability over 8 hours, temperature within <math>\pm 3^{\circ}\text{C}</math></b>               | $\leq 10$ pm                            |
| <b>Wavelength drift over consecutive on/off cycles, temperature within <math>\pm 3^{\circ}\text{C}</math></b> | $\leq 10$ pm                            |
| <b>Coherence length</b>                                                                                       | N/A                                     |
| <b>Side mode suppression ratio, +/- 0.5nm from the main peak</b>                                              | $\geq 30$ dB                            |
| <b>Side mode suppression ratio, +/- 5nm from the main peak</b>                                                | $\geq 40$ dB                            |

## General Specifications

|                                         |                                                         |
|-----------------------------------------|---------------------------------------------------------|
| <b>Power consumption</b>                | 4 W typ. / 10 W max.                                    |
| <b>Supply voltage</b>                   | 5 V to 12 V                                             |
| <b>Operating temperature</b>            | 20 °C to 35 °C                                          |
| <b>Storage temperature and humidity</b> | 0 °C to 60 °C                                           |
| <b>Warm up time</b>                     | $\leq 2$ minutes                                        |
| <b>Interfaces</b>                       | USB, RS-232, direct modulation inputs                   |
| <b>Dimensions (laser head)</b>          | 100x40x40 mm                                            |
| <b>Weight (laser head)</b>              | $\leq 330$ g                                            |
| <b>Controller dimensions</b>            | 106x126x56 mm                                           |
| <b>Compliance</b>                       | CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11 |
| <b>Laser class</b>                      | 4                                                       |
| <b>Warranty</b>                         | 24 months or 5000 hours, whichever occurs first         |

## Options

|                 |
|-----------------|
| Heat management |
| OEM version     |

*Oxxius has a policy of continuous product improvement. Specifications may change without notice.*