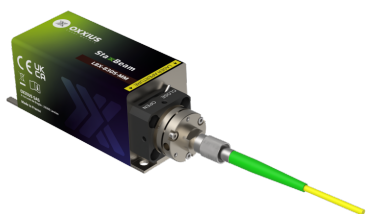


# StaXXBeam

By Oxxius

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product range</b> | Single Frequency Lasers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Product name</b>  | StaxxBeam 830 nm (pigtailed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reference</b>     | LBX-830S pigtailed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>   | <p>The StaxxBeam 830 is a compact and powerful pigtailed 830 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 Fully compatible with MixxWave combiners, in combination with other laser lines.</li> </ul> |



**Caption: LBX-830S MM fibered**

## Product Variations

| Part Number         | Power  |
|---------------------|--------|
| LBX-830S-500-MM-PPA | 500 mW |

## Optical Characteristics

|                                                                                                               |                                           |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>Emission wavelength</b>                                                                                    | 830 nm                                    |
| <b>Tolerance</b>                                                                                              | 0.5 nm                                    |
| <b>Power stability over 8 hours, temperature within <math>\pm 3^{\circ}\text{C}</math></b>                    | $\pm 1 \%$                                |
| <b>Control modes</b>                                                                                          | Automated current control                 |
| <b>Optical noise</b>                                                                                          | $\leq 0.2 \%$ rms, 10 Hz-20 MHz bandwidth |
| <b>Spectral linewidth</b>                                                                                     | $\leq 70 \text{ pm}$                      |
| <b>Wavelength stability over 8 hours, temperature within <math>\pm 3^{\circ}\text{C}</math></b>               | $\leq 10 \text{ pm}$                      |
| <b>Wavelength drift over consecutive on/off cycles, temperature within <math>\pm 3^{\circ}\text{C}</math></b> | $\leq 10 \text{ pm}$                      |
| <b>Coherence length</b>                                                                                       | N/A                                       |
| <b>Side mode suppression ratio, +/- 0.5nm from the main peak</b>                                              | $\geq 30 \text{ dB}$                      |
| <b>Side mode suppression ratio, +/- 5nm from the main peak</b>                                                | $\geq 40 \text{ dB}$                      |

## General Specifications

|                                         |                                                         |
|-----------------------------------------|---------------------------------------------------------|
| <b>Power consumption</b>                | 10 W max.                                               |
| <b>Supply voltage</b>                   | 5 V to 12 V                                             |
| <b>Operating temperature</b>            | 20 $^{\circ}\text{C}$ to 35 $^{\circ}\text{C}$          |
| <b>Storage temperature and humidity</b> | 0 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$           |
| <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>              | $\leq 330 \text{ g}$                                    |
| <b>Controler dimensions</b>             | 106x126x56 mm                                           |
| <b>Compliance</b>                       | CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11 |
| <b>Laser class</b>                      | 3B, 4                                                   |
| <b>Warranty</b>                         | 24 months or 5000 hours, whichever occurs first         |

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