

# FlexxRay

By Oxxius

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product range</b> | CW & Modulated Lasers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Product name</b>  | FlexxRay 607 nm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Reference</b>     | LPX-607L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>   | <p>The FlexxRay LPX-607 is a compact 607 nm laser source delivering one of the highest power available on the market over a beam of superior quality, and featuring an analogue modulation function. Its integrated control electronics and robust design suit both laboratory and industrial use.</p> <p>Performance, stability, and versatility make it a trusted solution for STED microscopy, optogenetics and fluorescence imaging.</p> <p><b>Key features</b></p> <ul style="list-style-type: none"> <li>• TEM<sub>00</sub> spatial mode</li> <li>• <math>\pm 1.0</math> % long-term power stability</li> <li>• Modulation up to 1.5 kHz</li> <li>• Integrated control electronics Fully compatible with Oxxius MixxWave combiners for single-mode fiber delivery alongside other laser lines.</li> </ul> |



## Product Variations

| Part Number          | Power  |
|----------------------|--------|
| LPX-607L-100-CSB-PPA | 100 mW |
| LPX-607L-200-CSB-PPA | 200 mW |

## Optical Characteristics

|                                                                                            |                                                 |
|--------------------------------------------------------------------------------------------|-------------------------------------------------|
| <b>Emission wavelength</b>                                                                 | 607 nm                                          |
| <b>Tolerance</b>                                                                           | ( $\pm 1$ nm tolerance)                         |
| <b>Power stability over 8 hours, temperature within <math>\pm 3^{\circ}\text{C}</math></b> | $\pm 1.0$ %                                     |
| <b>Control modes</b>                                                                       | Automated power control                         |
| <b>Optical noise</b>                                                                       | $\leq 2.0\%$ rms, 10 Hz-100 kHz bandwidth       |
| <b>Spectral linewidth</b>                                                                  | $\leq 0.5$ nm                                   |
| <b>Digital modulation function - Rise / fall time</b>                                      | $\leq 20$ $\mu\text{s}$                         |
| <b>Digital modulation function - Bandwidth</b>                                             | $\geq 1.5$ kHz                                  |
| <b>Analog modulation function - Rise / fall time</b>                                       | $\leq 20$ $\mu\text{s}$                         |
| <b>Analog modulation function - Bandwidth</b>                                              | $\geq 1.5$ kHz                                  |
| <b>Beam diameter, <math>1/e^2</math> level, 50mm from the beam aperture</b>                | $0.7 \pm 0.1$ mm                                |
| <b>Beam divergence, <math>1/e^2</math> level full beam, far field</b>                      | $\leq 1.6$ mrad                                 |
| <b>Beam quality factor <math>M^2</math></b>                                                | $\leq 1.1$                                      |
| <b>Beam circularity, far field</b>                                                         | $\geq 90$ %                                     |
| <b>Polarization state</b>                                                                  | Linear, vertical, extinction ratio $\geq 20$ dB |

## General Specifications

|                                         |                                                                                    |
|-----------------------------------------|------------------------------------------------------------------------------------|
| <b>Power consumption</b>                | 20 W max.                                                                          |
| <b>Supply voltage</b>                   | 5 V to 12 V                                                                        |
| <b>Operating temperature</b>            | 10 °C to 50 °C                                                                     |
| <b>Storage temperature and humidity</b> | 0 °C to 60 °C                                                                      |
| <b>Warm up time</b>                     | ≤5 minutes                                                                         |
| <b>Interfaces</b>                       | USB, RS-232, direct modulation inputs                                              |
| <b>Dimensions (laser head)</b>          | 120x40x32 mm                                                                       |
| <b>Weight (laser head)</b>              | 250 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>                      |  |
| <b>Warranty</b>                         | 24 months or 10000 hours, whichever occurs first                                   |

## Options

|                            |
|----------------------------|
| Single-mode fiber coupling |
| Multimode fiber coupling   |
| Heat management            |
| High rate modulation       |
| Optical Isolator           |
| OEM version                |

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