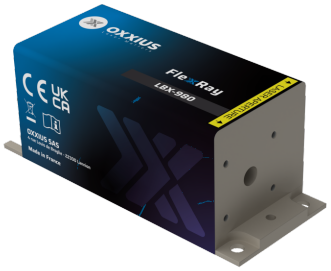
FlexxRay

By Oxxius

Product range	CW & Modulated Lasers
Product name	FlexxRay 980 nm
Reference	LBX-980
Description 	The FlexxRay LBX-980 is a compact 980 nm laser source built for demanding imaging and analytical applications, combining a diffraction-limited TEM_{00} beam, ultra-low optical noise, and modulation speeds up to 150 MHz. Its integrated control electronics and robust design suit both laboratory and industrial use. Precision, stability, and versatility make it a trusted solution for optical pumping and photoluminescence where beam quality and fast switching matter more than raw output power. Key features • TEM_{00} spatial mode • ±0.5% long-term power stability; low optical noise • Modulation up to 150 MHz • Integrated control electronics • 100×40 mm industry-standard footprint Fully compatible with Oxxius MixxWave combiners for single-mode fiber delivery alongside other laser lines.

Product Variations

Part Number	Power
LBX-980-250-CSB-PPA	250mW

Optical Characteristics

Emission wavelength	980 nm
Tolerance	(±10nm tolerance)
Control modes	Automated current control
Optical noise	≤ 0.8% rms, 10Hz-20MHz bandwidth
Spectral linewidth	≤ 1.2nm
Digital modulation function - Rise / fall time	≤ 2ns
Digital modulation function - Bandwidth	≥ 150MHz
Analog modulation function - Rise / fall time	≤ 150ns
Analog modulation function - Bandwidth	≥ 3MHz
Beam diameter, 1/e² level, 50mm from the beam aperture	0.9 ±0.2mm
Beam divergence, 1/e² level full beam, far field	≤ 2.3mrad
Beam quality factor M²	≤ 1.25
Beam circularity, far field	≥ 90%
Polarization state	Linear, vertical,extinction ratio ≥ 17dB

General Specifications

Power consumption	2 W typ. / 10 W max.
Supply voltage	5V to 12V
Operating temperature	10°C to 50°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)	100x40x40 mm
Weight (laser head)	≤330 g
Controler dimensions	106x126x56 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

Single-mode fiber coupling
Multimode fiber coupling
Heat management
Electromechanical shutter
Band-pass filter
OEM version

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