



**SUPERLUM**  
The driving pulse of SLD technology

SUPERLUM is the industry leading manufacturer of state-of-the-art, ultimate quality superluminescent diodes and light sources, semiconductor optical amplifiers and tuneable swept lasers

## Broadsweepers. Swept Wavelength Tunable Lasers

The **Broadsweeper series** is a family of tunable/swept wavelength external cavity semiconductor lasers. Narrow-band intra-cavity Acousto-Optical Tunable Filter (AOTF) is used for wavelength tuning. Broadsweeper series sources provide high output power, high wavelength accuracy and a hop-free wavelength tuning and sweeping over wide wavelength range with a very small ASE (Amplified Spontaneous Emission) noise floor. High accuracy of wavelength setting and excellent wavelength reproducibility in sweep operation are ensured by proper AOTF stabilization and «akinetik» cavity design. The laser is based on a PANDA-type polarization maintaining (PM) fiber providing PER exceeding 18 dB.



### Features

- Wide Wavelength Tuning Range
- Wide Range of Sweep Speeds:
  - 2 nm/s to 10,000 nm/s (for Slow Sweep Speed Models)
  - 100 nm/s to 10,0000 nm/s (for High Sweep Speed Models)
- High Stability and Repeatability of the Output Wavelengths
- ASE-Free Operation for High Dynamic Measurements
- Flat-Top-Shaped Tuning Characteristic
- PM-Fiber Output with a PER of 20 dB (typ)
- RS-232 Interface for Remote Control

### Applications

- Biomedical Imaging
- Optical Coherence Tomography
- Optical Metrology

- Fiber-Optic Sensing
- Interferometric Applications
- Optical Component Characterization

### General specifications

- Power Requirements: 110 VAC or 220 VAC, 50 Hz or 60 Hz
- Power Consumption: 20 W / 25 W\*
- Operating Temperature: +15... + 30 °C
- Storage Temperature: 0... +40 °C
- Outline Dimensions (W x H x D): 257 x 170 x 325 mm / 362 x 160 x 326 mm\*
- Weight: 9 kg / 12 kg\*

\* for models with internal optical power booster

[www.superlumdiodes.com](http://www.superlumdiodes.com)  
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## Standard Models Available for Ordering

Model	Tuning Range (nm)	Output Power (mW)	Sweep Speed (nm/s)	Linewidth (nm)
<b>765–815 nm Spectral Range</b>				
BS-785-1	50	3	2–10,000	0.06
BS-785-1-HP*	50	20	2–10,000	0.06
BS-785-2	50	3	100–100,000	0.12
BS-785-2-HP*	50	20	100–100,000	0.12
<b>805–880 nm Spectral Range</b>				
BS-840-1	75	3	2–10,000	0.06
BS-840-1-HP*	75	20	2–10,000	0.06
BS-840-2	75	3	100–100,000	0.12
BS-840-2-HP*	75	20	100–100,000	0.12
<b>900–980 nm Spectral Range</b>				
BS-930-1	80	3	2–10,000	0.09
BS-930-1-HP*	80	20	2–10,000	0.09
BS-930-2	80	3	100–100,000	0.15
BS-930-2-HP*	80	20	100–100,000	0.15
<b>1020–1090 nm Spectral Range</b>				
BS-1060-1	70	3	2–10,000	0.09
BS-1060-1-HP*	70	20	2–10,000	0.09
BS-1060-2	70	3	100–100,000	0.15
BS-1060-2-HP*	70	20	100–100,000	0.15

*\* for models with internal optical power booster*



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