

Product description:

Safibra's SLEDs (Superluminescent Light Emitting Diodes) are of Light Emitting Diodes (semiconductor light sources that merge the best features LEDs and semiconductor lasers. The SLEDs provide broadband output optical spectrum and low temporal coherence typical of LEDs, with high output power levels and high spatial coherence typical of semiconductor lasers.

SAFIBRA offers a wide range of standard SLED sources with different wavelengths ranging from 750 to 1600 nm, with different power and bandwidth values according to customer's need.

Optical sources are provided in two various packaging according to their cooling. Cooled version includes TEC (thermo electrical cooler) inside to stabilize SLEDs temperature.

In addition to standard products, SAFIBRA can also offer devices with custom performance and custom housing/ solutions. Our diverse portfolio of SLEDs provides our customers with a wide variety of choices, when determining the optimal SLED for their application.

Optical source can be operated in **continual mode** (CW) and it could be also modulated – **internally** by 1 kHz or **externally** by 0-10 kHz (TTL).

The **OFLS-B-13** is a universal optical light source optimal for testing of fiber optic components like CD and PMD, optical channel monitoring, passive component testing, sensor applications and medical imaging

Particularly the light source could be applied in **research field**, where experiments under specific conditions are performed. Thanks competitive pricing is also suitable for **teaching and learning purpose** especially in fiber optics and optoelectronics labs at university institutions.



Features:

- Broad range of wavelength: **1280 to 1340nm**
- Broadband Optical Emissions: FWHM **up to 60nm**
- High Optical Power: **up to 25mW** (from the fiber)
- Low Spectral Modulation (Ripple)
- Short Coherence Lengths (Low Temporal Coherence)
- High Spatial Coherence
- External modulation

Applications:

Fiber optic component testing

Optical channel monitors (DWDM, OCM, and OPM)
Chromatic & Polarization mode dispersion
Passive component characterization

Fiber optic sensor

Civil structure monitoring (Bridges, tunnels,...)
Atomic Force microscopy
Temperature, strain, pressure, el. power measurement

Navigation / Fiber optic gyroscopes

Avionics
Aerospace
Navigation

Medical imaging

Optical coherence tomography
Confocal microscopy
Endoscopy, Cardiovascular & Gastrointestinal
Cornea & Retina diagnostics

Technical specification: ($T_{SLED}=25^{\circ}C$)

Parameter	Min.	Typ.	Max.	Unit	Remarks
Central Wavelength	1300	1320	1340	nm	OFLS-B-13-06-U
	1280	1300	1320	nm	
	1290	1310	1330	nm	OFLS-B-13-55-C
Output power	0.4	0.8		mW	OFLS-B-13-06-U
	1.0	1.5		mW	OFLS-B-13-10-C
	4.0	8.0		mW	OFLS-B-13-55-C
	15	20		mW	OFLS-B-13-75a-C
	18	25		mW	OFLS-B-13-75b-C
	18	20		mW	OFLS-B-13-75c-C
	35	40		nm	
Bandwidth	55	60		nm	OFLS-B-13-10-C
					OFLS-B-13-75a-C
	40	45		nm	OFLS-B-13-75b-C
	50	55		nm	OFLS-B-13-75c-C
Spectral Ripple		0.1	0.2	dB	
		0.15	0.3	dB	OFLS-B-13-55-C
		0.4	0.6	dB	OFLS-B-13-06-U
Storage temperature	-40		85	°C	
Operation temperature	-20		60	°C	
Dimensions		35 × 84 × 166		mm	uncooled version
		44 × 115 × 160		mm	cooled version
Power supply	AC 230V/ DC 9V				
Operation mode	CW / internal modulation (1 kHz) / external modulation (max 10 kHz)				
Optical output	Optical connector as required				

Order information:

OFLS-B-13 - XX - Y - ZZ

OFLS-B-13 1300 nm Broadband Optical Fiber Light Source

Code	Optical power In SMF	Bandwidth FWHM	Spectral Ripple
55	10.0 mW > P ≥ 5.0 mW	≥20 nm	≤0.4dB
10	3.0 mW > P ≥ 2.0 mW	≥ 20 nm	≤0.2 dB
06	1.0 mW > P ≥ 0.5 mW	≥ 20 nm	>0.4 dB
75 (abc)	P ≥ 20 mW	≥20 nm	≤0.4dB

Code	Package Version
C	Cooled
U	Uncooled

Code*	Connector type
FA	FC/APC

* Other types of connectors are on request