SUPERLUM — SLD-47-HP: Very-high-power wide-spectrum SLDs at 930 nm

Features:

- Very wide, 70 nm (up to 100 nm) FWHM optical spectrum
- Short coherence length
- High output power
- Very low residual Fabry-Perot modulation depth

Packages:

- Fiber coupled: Butterfly, DIL
- Free space: TOW
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Additional & customized:

- PD monitors
- FC/APC terminated pigtails
- PM pigtails (polarized or pseudo-depolarized output)

Applications

- fiberoptic sensors
- Bragg grating sensors
- optical coherence tomography
- optical measurements

Specifications
(Nominal Emitter Stabilization Temperature +25 °C)

Parameter	Category	Min	Typ	Max
Output power, SM fiber pigtail, SLD-471-HP, mW	HP1	3.0	3.5	-
	HP2	7.0	10.0	-
Free space output power*, in a cone N.A=0.71, emitter @ +25 °C, mW	HP1	6.0	7.5	-
	HP2	15.0	20.0	-
Forward current**, mA	HP1	-	150	200
	HP2	-	190	250
Forward voltage, V	All	-	-	2.5
Central wavelength, nm	All	910	935	950
Spectrum width, FWHM, nm	HP1	60	70	-
	HP2	60	65	-
Residual spectral modulation depth, %	All	-	2.0	5.0
Secondary coherence subpeaks, dB (10 log)	All	-	-25	-
Spectral Flatness***, dB	All	-	1	2
Slow / fast polarization ratio (PM "polarized" modules)****, dB	All	5	10	-
Operating temperature*****, °C	All	-55	-	+80
Cooler current, A	All	-	-	1.2
Cooler voltage, V	All	-	-	3.5

* TOW packaged SLDs;
** current is specially adjusted to get highest output power with equal intensity of spectral lobes; different for different modules;
*** Spectral Flatness parameter describes spectral intensity dropout between spectral lobes;
**** Pseudo-depolarized versions (light is launched into the fiber with its polarization oriented at 45° to the birefringent axes) are available upon request;
***** Butterfly packaged SLDs

Very broad 100 nm FWHM spectrum SLDs are available upon request!

The following part numbers should be used when **ordering**:

SLD-47(a)-(b)-(c)-(d)-(e),
where: (a) – 0 (free space) or 1 (fiber pigtailed),
(b) – power category HP1 or HP2, (c) – package type,
(d) – SM or PM (fiber coupled modules),
(e) – PD (if PD monitor is required).

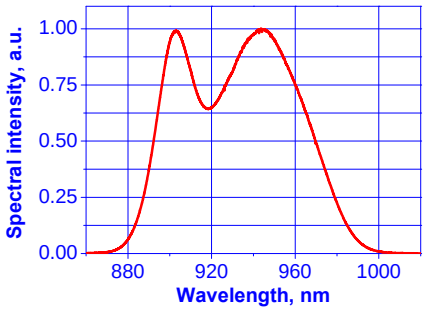
Example: SLD-471-HP1-DIL-SM-PD.

A maximum feedback of 10^{-3} is allowed to run HP series SLDs safely at full power.

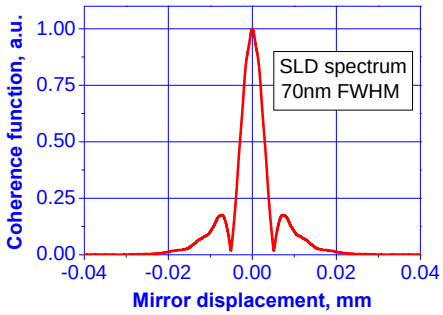
All specifications are subject to change without notice.

PERFORMANCE EXAMPLES

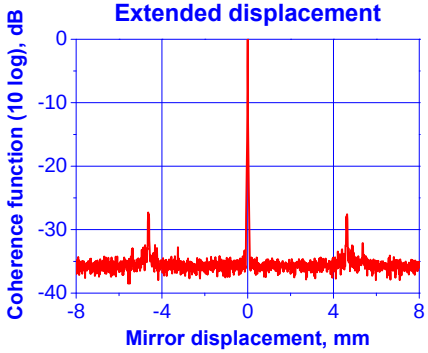
HP1 Spectrum - 3.5 mW ex SM Fiber



Short displacement



Extended displacement



Mirror displacement = Optical path difference / 2

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