SUPERLUM — SLD-52: Very wide spectrum SLDs at 1000 nm and 1020 nm

Features:

- very wide, 100 nm FWHM optical spectrum
- negligible residual Fabry-Perot modulation depth
- internal PD monitor
- FC/APC terminated pigtails

Applications:

- optical sensing
- optical coherence tomography
- optical measurements

Packages:

- fiber coupled – Butterfly, DIL
- free space – TOW

Additional and customized:

- PM pigtails (slow axis alignment; 45 degree orientation upon request)

Specifications (nominal emitter stabilization temperature +25°C)

Parameter	Category	Min	Typ	Max
Output power, SM fiber pigtailed, SLD-521, mW	MP	1.5	2.0	-
	HP	4.0	5.0	-
Output power, Glass window, SLD-520, mW	MP	3.0	4.0	-
	HP	8.0	10.0	-
Forward current, mA	MP	-	220	300
	HP	-	280	350
Forward voltage, V	All	-	-	2.2
Central wavelength, nm	All	990 1010	1000 1020	1010 1030
Spectral width FWHM, nm	All	90	100	-
Residual spectral modulation depth, %	All	-	2.0	5.0
Spectral flatness, dB	All	-	-	2.5
Secondary coherence subpeaks, (Reflectivity), dB (10 log)	All	-	25	-
Slow / fast polarization ratio (PM- modules), dB*	All	10		-
Operating temperature (case), °C	All	-55	-	+65
Cooler current, A	All	-	-	1.2
Cooler voltage, V	All	-	-	3.5

* Pseudo-depolarized versions (light is launched into the fiber with its polarization oriented at 45° to the birefringent axes) are available upon request

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

SLD-52(a)-(b)-(c)-(d)-(e)-(f),
where: (a) – 0 (free space) or 1 (fiber pigtailed),
(b) – power category (MP, HP), (c) – package type,
(d) – SM (isotropic) or PM (polarization maintaining) fiber (pigtailed versions only), (e) – PD (if PD monitor is required),
(f) – central wavelength.

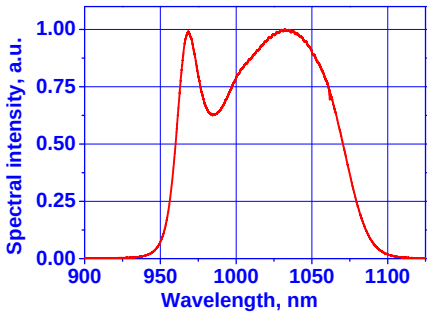
Example: SLD-521-HP2-DBUT-SM-PD-1020 or SLD-521-HP1-DBUT-SM-PD-1000.

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

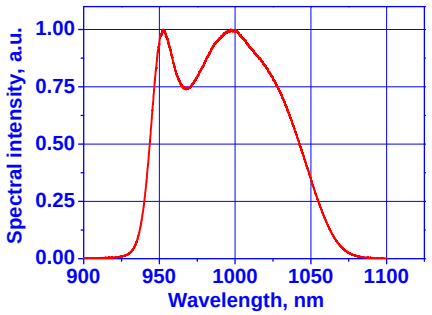
All specifications are subject to change without notice.

PERFORMANCE EXAMPLES

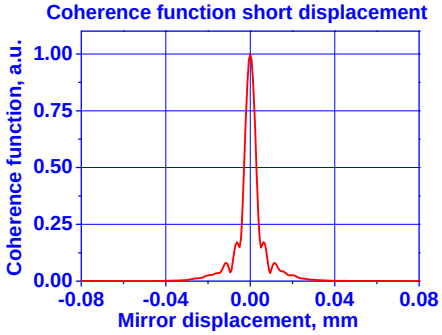
Typical spectrum of SLD-52 at 1020 nm



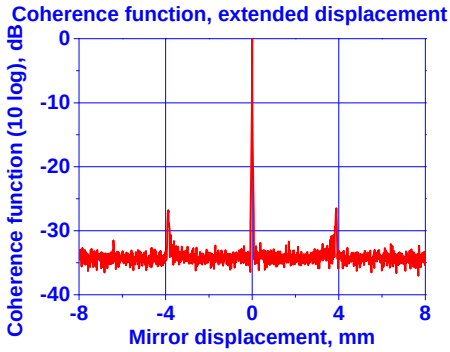
Typical spectra of SLD-52 at 1000 nm



Coherence function short displacement



Coherence function, extended displacement



Mirror displacement = Optical path difference /2

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