SUPERLUM — SLD-54-HP: High-power broadband SLDs at 1060 nm

Features:

- 3 power categories, up to 20 mW ex SM fiber
- 70-nm-wide spectrum with negligible residual Fabry-Perot modulation depth
- internal PD monitor
- FC/APC terminated pigtails

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-541, mW	HP1	4.0	5.0	-
	HP2	8.0	10.0	-
	HP3	16.0	20.0	-
Output power, Glass window, SLD-540, mW	HP1	8.0	10.0	-
	HP2	16.0	20.0	-
	HP3	35.0	40.0	-
Forward current, mA	HP1	-	180	220
	HP2	-	220	280
	HP3	-	260	330
Forward voltage, V	All	-	-	2.2
Central wavelength, nm	All	1040	1055	1070
Spectral width FWHM, nm	All	60	70	-
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	-	7.0	-
Operating temperature (case), °C	All	-55	-	+60
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-54(a)-(b)-(c)-(d)-(e),
where: (a) – 0 (free space) or 1 (fiber pigtailed),
(b) – power category (HP1, HP2, HP3), (c) – package type,
(d) – SM (isotropic) or PM (polarization maintaining) fiber (pigtailed versions only), (e) – PD (if PD monitor is required).

Example: SLD-541-HP2-DBUT-SM-PD.

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

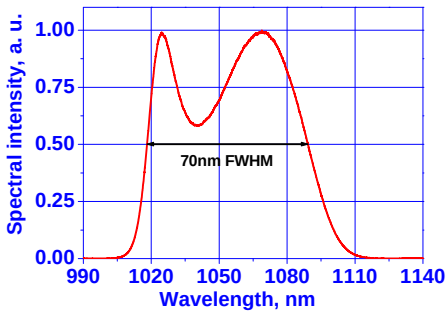
All specifications are subject to change without notice.

Applications:

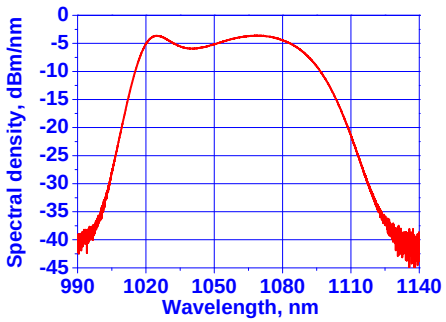
- optical sensing
- optical measurements

PERFORMANCE EXAMPLES

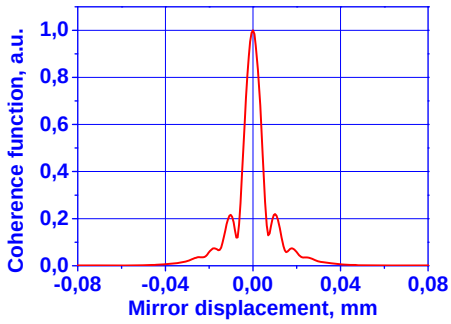
Spectrum of SLD-54-HP3, 20 mW ex SM fiber



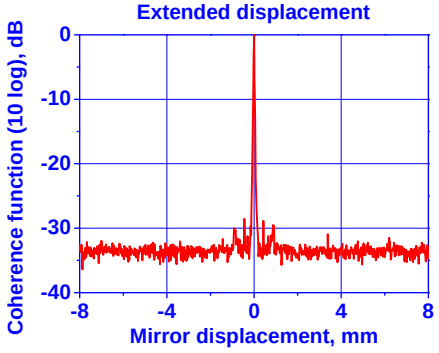
Spectrum of SLD-54-HP3, log scale



Short displacement, 70 nm FWHM



Extended displacement



Mirror displacement = Optical path difference /2

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