SUPERLUM

SLD-57-HP: wide-spectrum, high-power SLD modules at 1300 nm

Features:

- **High output power, 10 mW from SM fiber**
- Very wide spectrum, 60-nm and 50-nm FWHM for HP1 and HP2 respectively
- Flat spectrum with small Fabry-Perot modulation depth

Packages: DBUT; others on request

Additional & customized:

- PD monitors
- PM fiber pigtails, polarized / pseudo-depolarized output
- FC/APC terminated pigtails

Specifications (Nominal Emitter Stabilization Temperature +20 °C)

Parameter	Category	Min	Typ.	Max
Output power ex SM fiber, fiber pigtailed SLD-57-HP, mW	HP1	4.0	5.0	-
	HP2	8.0	10.0	-
Forward current, mA	HP1	-	320	400
	HP2	-	400	500
Forward voltage, V	All	-	-	2.5
Peak wavelength, nm	All	1270	1300	1330
Spectrum width, nm	HP1	50	60*	-
	HP2	40	50*	-
Residual spectral modulation depth, %	All	-	2.5	5.0
Secondary coherence subpeaks (10 log), dB	All	-	-	-20
Slow / fast polarization ratio (PM "polarized" modules)**, dB	All	5	10	-
Operating temperature (case) at full power, °C	HP1	-55	-	+65
	HP2	-55	-	+60
Cooler current***, A	All	-	-	1.2
Cooler voltage***, V	All	-	-	3.5

* A spectral width of 60 nm and 50 nm for HP1 and HP2 respectively can be guaranteed upon request. Please note that the SLD spectrum width depends on drive current. The spectrum width increases with output power.

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

*** 2.5 A/ 4 V TE cooler may be used to extend operating temperature range.

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

SLD-571-HP(N)-(c)-(d)-(e),
where:
(N) – 1 or 2 (for HP1 or HP2, respectively),
(c) – package type,
(d) – SM (isotropic) or PM (polarization maintain),
(e) – PD monitor.

Example: SLD-571-HP2-DBUT-SM-PD.

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

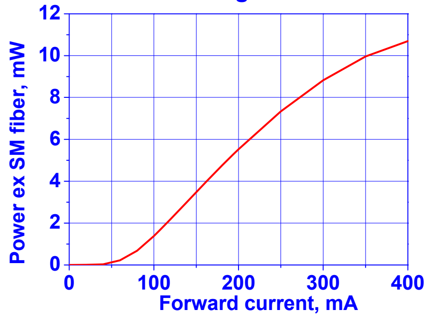
All specifications are subject to change without notice.

Applications:

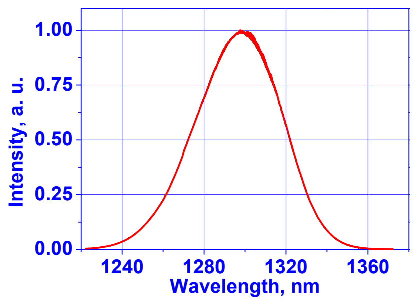
- **optical sensing**
- **optical coherence tomography**
- **optical measurements**

PERFORMANCE EXAMPLES

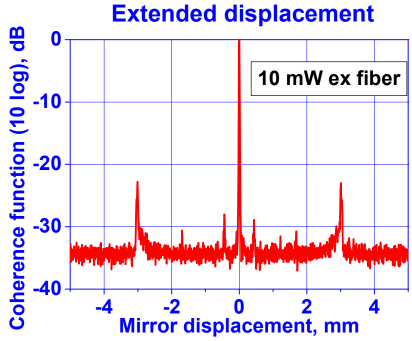
SLD-571-HP2. Light-current curve



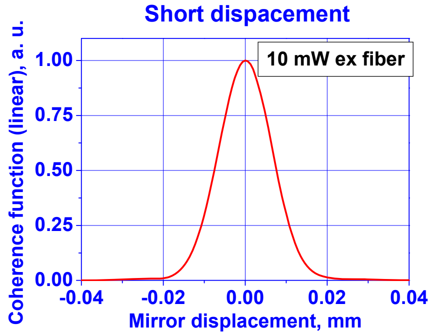
Spectrum at 10 mW ex SM fiber



Extended displacement



Short dispacement



Mirror displacement = Optical path difference / 2

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