Superlum Diodes, Ltd. — SLD-52-HP: Very wide spectrum SLD modules at 1020 nm

Features:

- very wide, 100-nm FWHM optical spectrum
- short coherence length
- high output power
- negligible residual Fabry-Perot modulation depth

Packages:

- **fiber coupled:** DIL, Butterfly
- **free space:** TOW

Additional & customized:

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

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, mW, SM fiber pigtail, SLD-521	HP	5.0	-	-
Free space output power, mW, in a cone N.A=0.71, SLD-520 *	HP	10.0	-	-
Forward current**, mA	HP	-	350	400
Forward voltage, V	HP	-	-	2.2
Central wavelength, nm	HP	1010	1025	1040
Spectrum width, FWHM, nm	HP	95	-	-
Residual spectral modulation depth, %	HP	-	2.0	5.0
Secondary coherence subpeaks (Reflectivity), dB (10 log)	HP	-	-25	-
Spectral Flatness***, dB	HP	-	-	2.5
Slow / fast polarization ratio (PM modules), dB****	HP	5.0	-	-
Operating temperature range*****, °C	HP	-55	-	+75
Cooler current, A	HP	-	-	1.2
Cooler voltage, V	HP	-	-	3.5

* TOW packaged SLDs;

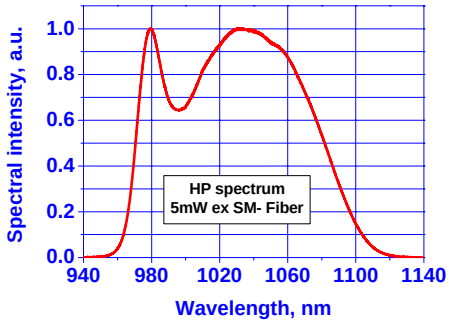
** Current is specially adjusted to get the highest output power with equal intensity of spectral lobes; different for different modules;

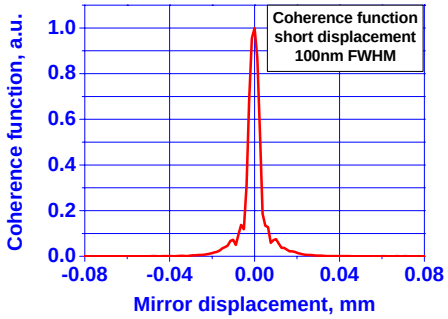
*** Spectral Flatness parameter describes spectral intensity dropout between spectral lobes;

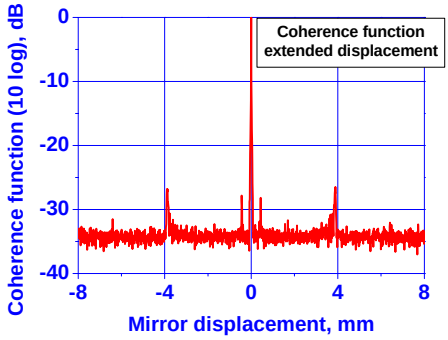
**** Pseudo-depolarized versions (light is launched into the fiber at 45 degrees to the birefringent axes) are available upon request;

***** Butterfly packaged SLDs.

PERFORMANCE EXAMPLES







Mirror displacement = Optical path difference / 2

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

SLD-52(a)-(b)-(c)-(d)-(e),
where:
a – 0 (free space) or 1 (fiber pigtailed),
b – power category (HP),
c – package type,
d – type of fiber, SM or PM (for fiber coupled modules),
e – PD (if a PD monitor is required).

Example: SLD-521-HP-DIL-SM-PD.

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

All specifications are subject to change without notice.

A lot of customized solutions are available – contact us with your detailed requirements!

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