# SUPERLUM — SLD-53-MP: medium power SLD modules at 1050 nm

**Features:**

- low cost medium power modules at 1050 nm
- flat spectrum with negligible residual Fabry-Perot modulation depth

**Packages:**

- **fiber coupled –** Butterfly, DIL
- **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, SM-fiber pigtail, SLD-531, mW | MP1 | 1.0 | 1.5 | - |
| | MP3 | 4.0 | 5.0 | - |
| Free space output power, in a cone N.A.=0.71, SLD-530*, mW | MP1 | 3.0 | 5.0 | - |
| | MP3 | 8.0 | 10.0 | - |
| Forward current**, mA | MP1 | - | 150 | 200 |
| | MP3 | - | 200 | 250 |
| Forward voltage, V | All | - | - | 2.0 |
| Central wavelength, nm | MP1 | 1025 | 1045 | 1050 |
| | MP3 | 1030 | 1050 | 1065 |
| Spectrum width, FWHM, nm | MP1 | 50 | 70 | - |
| | MP3 | 20 | 35 | - |
| Residual spectral modulation depth, % | All | - | 2.0 | 5.0 |
| Secondary coherence subpeaks (Reflectivity), dB (10 log) | All | - | -25 | - |
| Slow / fast polarization ratio (PM fiber-coupled modules)***, dB | All | 5.0 | - | - |
| 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;

*** 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.

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

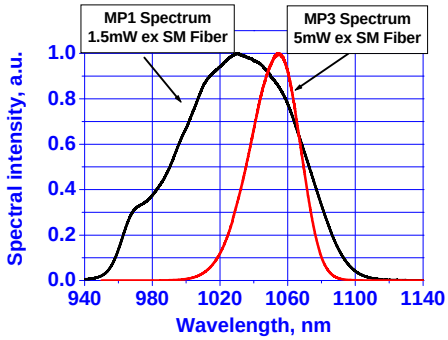
SLD-53(a)-(b)-(c)-(d)-(e),
where: (a) – 0 (free space) or 1 (fiber pigtailed),
(b) – power category MP1 or MP2, (c) – package type,
(d) – SM or PM (fiber coupled modules),
(e) – PD (if PD monitor is required).

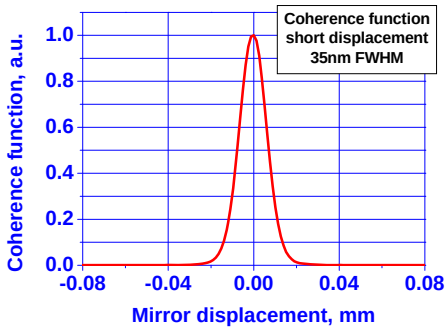
Example: SLD-531-MP1-DIL-SM-PD.

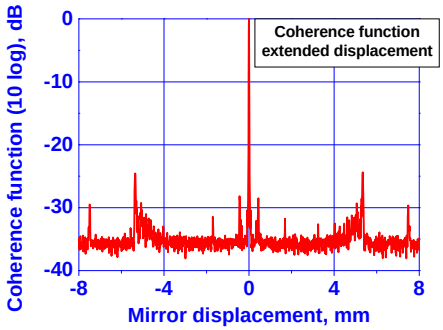
**A maximum feedback of $10^{-3}$ is allowed to run MP series SLDs safely at full power.**

All specifications are subject to change without notice.

## PERFORMANCE EXAMPLES




**Mirror displacement = Optical path difference / 2**

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