

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 pigtailed

Packages:

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

Additional and customized:

- PM pigtailed (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.

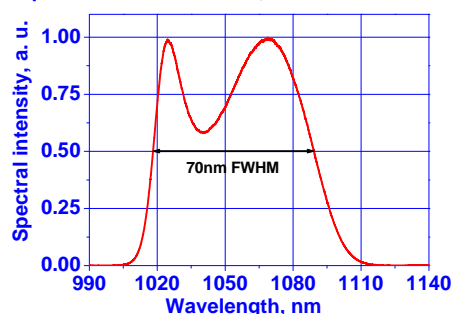
All specifications are subject to change without notice.

Applications:

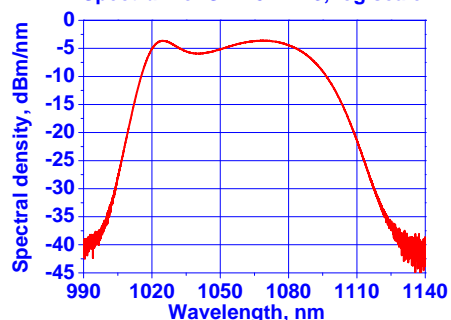
- optical sensing
- optical measurements

PERFORMANCE EXAMPLES

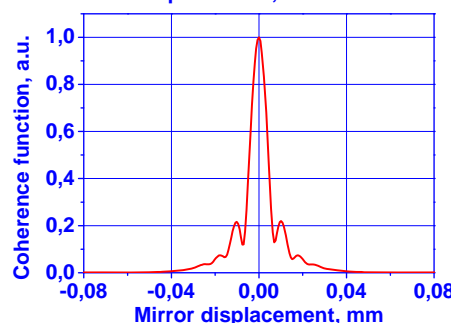
Spectrum of SLD-54-HP3, 20 mW ex SM fiber



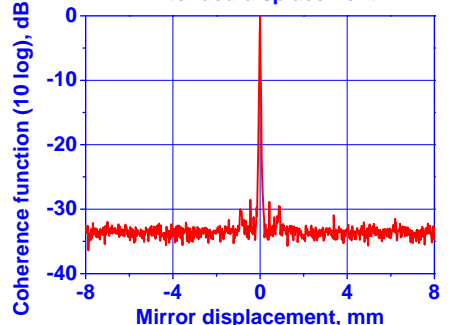
Spectrum of SLD-54-HP3, log scale



Short displacement, 70 nm FWHM



Extended displacement



Mirror displacement = Optical path difference / 2