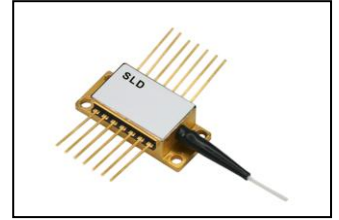


Superluminescent diodes are semiconductor emitters that combine the high brightness of laser diodes with a broad spectrum of LEDs. They are light sources of choice for numerous applications based on low coherence measurements like Optical Coherence Tomography, spectroscopy, low speckle illumination, and others. Superlum offers a wide range of SLD modules and SLD-based light sources. Please also check our SLD controllers and light source modules to ensure safe and stable SLD operation in your system.



#### Specifications – Optical Parameters

Parameter	MIN	TYP	MAX
Output power $P_{op}$ , ex SM fiber, mW	5.0	7.0	–
Forward current at $P_{op}$ , mA	–	220	300
Central wavelength at $P_{op}$ , nm	1035	1050	1065
Spectrum width at $P_{op}$ , FWHM, nm	75	85	–
Spectral flatness at $P_{op}$ , dB	–	2.2	2.5
Residual spectral modulation depth at $P_{op}$ , %	–	–	5.0
Secondary coherence subpeaks <sup>†</sup> at $P_{op}$ , dB (10 log)	–	-25	-20
Slow / fast polarization ratio (PM modules) at $P_{op}$ , dB	–	10	–
PD monitor current <sup>††</sup> at $P_{op}$ , mA	0.1	–	–

<sup>†</sup> - direct measurement by Michelson interferometer

<sup>††</sup> - at 5 V reverse bias

#### Other Parameters

SLD forward voltage at $P_{op}$ , V	–	–	2.6
PD monitor bias voltage, V	–	–	5.0
Operating temperature at $P_{op}$ , °C	-20	–	+65
Storage temperature at $P_{op}$ , °C	-40	–	+85
Cooler current, A	–	–	2.5
Cooler current, V	–	–	3.2
Thermistor BETA, K	–	3892	–
Thermistor Resistance at 25 °C, kΩ	–	10	–

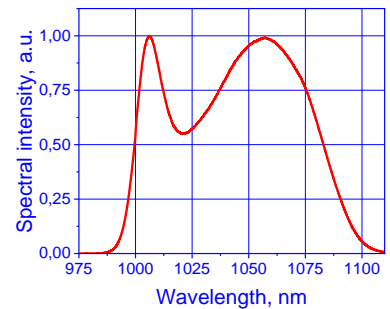
#### Applications

- High Resolution Optical Coherence Tomography
- Spectroscopy
- Optical sensing
- Optical metrology

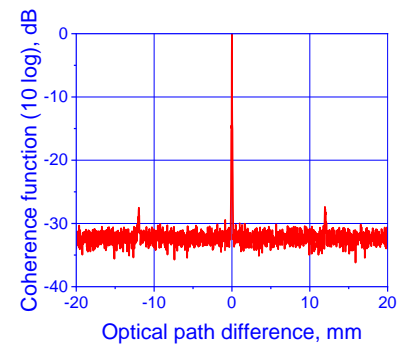
#### Typical Performance Examples



Light-current characteristic



Optical spectrum at  $P_{op}$



Coherence function at  $P_{op}$

**The following marking should be used for ordering:**

**P/N (fiber type)**

**Examples :** **S1050.85.7S** – as rated above, SMF pigtail, FC/APC; **S1050.85.7P**– as rated above, PMF pigtail, FC/APC.

MMF pigtailed SLDs are available upon request. Modules will be shipped FC/APC finished if not specified otherwise in the PO. SLDs with LC/APC finished fiber pigtails are available upon request.

Superlum offers customization of its products to fit the requirements of every Customer. Please get in touch with us for more details before ordering if you need customer-specific SLD parameters.