

## LIGHT SOURCES

# Superluminescent Diode Light Source (SLD-101S)



The SLD-101S is a highly stable superluminescent light source designed specifically for OCT, sensor and test & measurement applications. During operation, both the current and temperature are accurately controlled for superb power and spectral stabilities. The output power and diode temperature are stabilized to 0.02 dB and 0.05°C respectively. The light source has three available operation modes: constant current, constant power (optional), and modulated power. The modulation can be either external or internal, with different waveforms (sine or square) and different speeds (up to 100 kHz). One unique feature is that users can select either low or high degree of polarization (DOP) options for specific applications. Other user-selectable options include output fiber type (SM or PM), center wavelength, spectral width, and output power. Finally, the SLD-101S comes with USB, RS-232, Ethernet, and GPIB communication ports for easy, flexible interface with computers and other instruments. It is an ideal source for OCT, fiber sensors, fiber gyros, PM patch cord extinction ratio (ER) measurement, and general-purpose test and measurement.

### Specifications:

Center Wavelengths <sup>1</sup>	1310 nm	1550 nm
Output Power <sup>1</sup>	10 mW typical	10 mW typical
Spectral Width <sup>1</sup>	> 30 nm	> 40 nm
Short Term Optical Power Stability <sup>2</sup> Long Term Stability	±0.02 dB over one hour ±0.05 dB over 8 hours	
DOP	Low DOP option: < 5%, 2% typical High DOP option: > 95% Neutral: no specific DOP requirement	
PER <sup>3</sup>	> 18 dB for PM output option with high DOP	
Temperature Stability	0.05 °C	
Temperature Setting Range	10 to 40 °C	
Internal Modulation Waveforms & Speed	Sine: 0 – 200 Hz Square: 0 – 2 kHz	
External Modulation Speed	DC to 100 kHz	
External Modulation Connector	BNC	
Display	2 x 20 character LCD display	
Connector Type	FC/PC, FC/APC, SC/PC, SC/APC	
Operating Temperature	0 to 50 °C	
Storage Temperature	-20 to 65 °C	
Communication Interface	USB, Ethernet, RS-232, and GPIB	
Electrical Power Supply	100 – 240 VAC, 50 – 60 Hz	
Dimensions	2U 19" half rack width 14" (L) x 8.5" (W) x 3.5" (H)	

#### Notes:

1. Other options available. Contact General Photonics for details.
2. Stability specs listed apply to standard configuration with neutral DOP at an output larger than 80% of the maximum output power or driving current. Other options, such as low DOP, high DOP or high PER, may degrade stability.
3. High ER polarizer (ER > 35 dB) with long PM pigtails available. Contact General Photonics for details.

### Features:

- Extremely power stable
- Extremely temperature stable
- Internal and external modulation options
- Low and high DOP options

### Applications:

- Optical coherence tomography (OCT)
- Fiber sensors
- Fiber gyros
- Test and measurement
- Component and system QA
- R&D

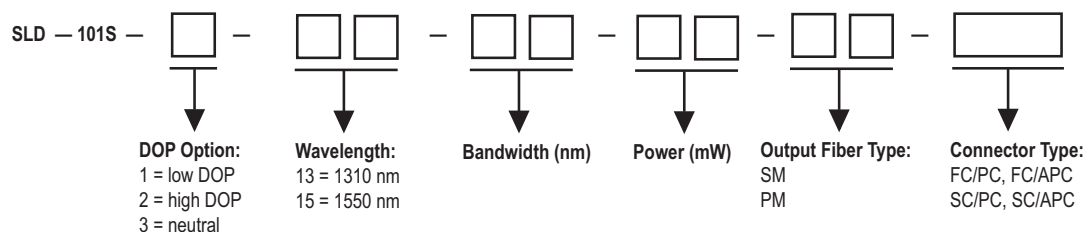
### Related Products:

- Rack Mount Kit (RCK-001)
- Components

### Tech Info:

- [Optical Coherence Tomography Technologies](#)

### Ordering Information:



Distribution in the UK & Ireland



**Characterisation,  
Measurement &  
Analysis**

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