Benchtop Superluminescent Light Source

S5FC1021S

Description

The Thorlabs Fiber Coupled SLD Source provides easy coupling and simple control of a Superluminescent Diode (SLD). Each system is equipped with a single FC/APC connector output. The drive electronics feature an independent, high-precision, low-noise, constant-current source and a temperature control unit. An intuitive LCD interface allows the user to view and set current and temperature parameters independently. The S5FC includes a universal power supply allowing operation over 100 to 240 VAC without the need for selecting the line voltage and is supplied with a US line cord as well as a standard European line cord. The fuse access is conveniently located on the rear panel. The SLD offered here is an indium phosphide (InP) device coupled to a SM fiber. For added safety, the system is designed to meet 3B laser class requirements.

SLDs are excellent high power broadband light sources for use as ASE Light Sources and in applications like Optical Coherence Tomography (OCT) Imaging Systems and Fiber Optic Gyroscopes (FOG).

Specifications

General Specification	Value
AC Input	100 - 240 VAC, 50 - 60 Hz
Input Power	20 VA Max
Fuse Ratings	250 mA
Fuse Type	IEC60127-2/III (250 VA, Slow Blow Type 'T')
Fuse Size	5 mm x 20 mm
Dimensions (W x H x D)	5.8" x 11.4" x 2.6" (146 mm x 290 mm x 66 mm)
Weight	5 lbs (9.1 lbs Shipped Weight)
Operating Temperature	15 to 35 °C
Storage Temperature	0 to 50 °C
Connections and Controls	
Interface Control	Optical Encoder with Pushbutton
Enable Select	Keypad Switch with LED Indicator
Power On	Key Switch
Fiber Ports	FC/APC
Display	LCD, 16 x 2
Input Power Connection	IEC Connector
Modulation Input Connector	BNC (Referenced to Chassis)
Interlock	100 mil Header
Communications	
Communications Port	USB 2.0
Com Connection	USB Type B Connector
Required Cable	2 m USB Type A t B Cable (Replacement Item # USB-A-79)

Specifications Continued

Optical Specifications			
	Min	Typical	Max
Operating Current	-	700 mA	900 mA
Center Wavelength	1290 nm	-	1330 nm
ASE Power	10 mW	12.5 mW	-
Optical Bandwidth	80 nm	85 nm	-

Performance Specifications	
Current Set Point Resolution	0.1 mA
Temperature Adjust Range	20 to 30 °C
Temp Set Point Resolution	± 0.01 °C
Noise, (Typ Source Dependent)	<0.1%
Rise Time / Fall Time	1.4 µsec / 1.6 µsec
Modulation Input	0-5 V = 0 – Full Power
Modulation Bandwidth	250 KHz Full Depth of Modulation

Drawings