850nm 3mW Benchtop Single-Mode SLD Light Source

Product Description

Idealphotonics' Ultra-Width Series 850nm High-Stability Single-Mode Pump Light Source utilizes a TEC wavelength-stabilized single-mode semiconductor laser, offering wavelength stability and high output power. Based on an advanced microprocessor control system, combined with high-precision ATC and ACC (APC) control circuits, this light source achieves highly stable laser output while ensuring quick and intuitive operation. We can also provide corresponding communication interfaces and control software based on user requirements for computer control. This light source features a Turn-Key pump laser protection function to effectively prevent damage due to user error. Power can be coarsely adjusted (in 1mW steps) or finely tuned (in 0.1mW steps). 850nm single-mode pump light source is a highly integrated benchtop system light source, equipped with a high-definition LCD display, continuously adjustable output power, and synchronous display of current and voltage, making it ideal for experimental scientific research and production testing. Additionally, the company can provide modular packaging tailored to user needs for easy system integration.

Part Number

LP-SLD-850-B-3-40-SM

● Product features

Single-mode high-power output: Up to 25mW、 Spectral width up to 80nm、 ASE light isolation protection design、 Stable and continuously adjustable output power、 LCD status display、 High-precision ACC and ATC control circuits、 Optional built-in isolator

● Application area

Fiber Optic Gyroscopes、Optical Coherence Testing、Test and Measurement、Nonlinear Effect Studies

Parameters

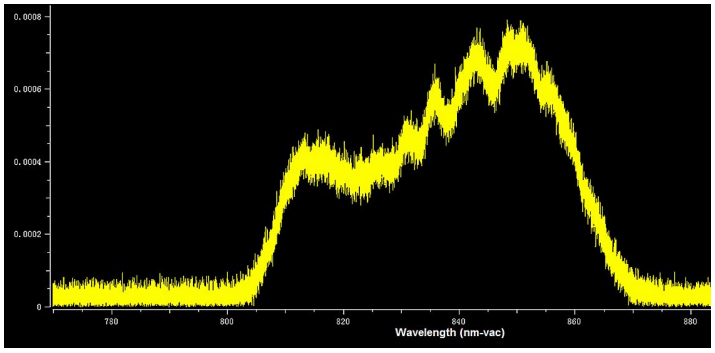
Parameters

Parameters	Unit	Specs		
		Min.	Typ.	Max.
PN#		LP-SLD-850-B		LP-SLD-850-M*
Output Power	mW	3	-	35
Peak Operating Wavelength	nm	830	850	870
Spectral Width (FWHM)	nm	25	40	80
Output Side Mode Suppression Ratio (SMSR)	dB	20	-	-
Output Isolation	dB	-	30	-
Output Power Stability (15 minutes)	%	-	±0.5	± 1.0
Output Power Stability (8 hours)	%	-	±1.0	±2.0
Output Power Adjustable Range	%	0	-	100
Output Power Adjustment Mode		Coarse/Fine Adjustment		
TEC Stability	℃	-	±0.1	±0.2
TEC Operating Range	℃	25	30	35
Operating Voltage	VAC	100	220	240
Electrical Power Consumption	W	-	-	30
Operating Temperature	℃	0	-	50
Storage Temperature	℃	-40	-	85

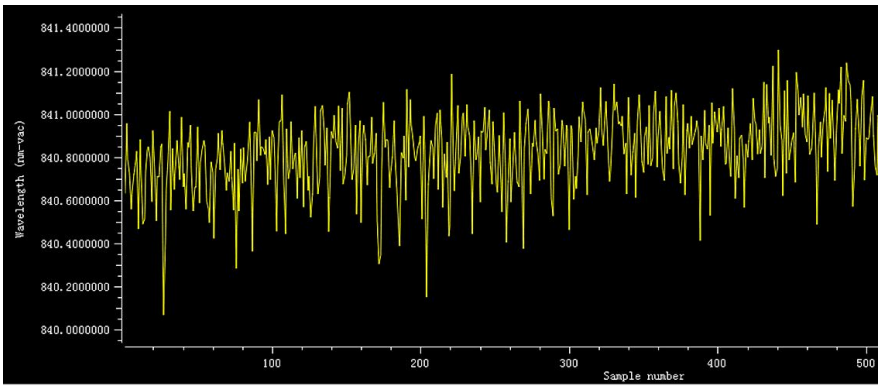
Output Fiber Type		SMF-28E+
Output Fiber Length	m	>1
Output Fiber Connector		FC/APC, other models optional
Dimensions	mm	340(L) × 240(W) × 100(H) Benchtop
		150(L) × 125(W) × 25(H) Module

Technical Notes:
Remote software control optional
Output power customizable
Peak operating wavelength can be specified
Isolation refers to protection against ASE light
Power stability tested at 25°C after 30-minute warm-up
Maximum power consumption refers to overall consumption under extreme conditions

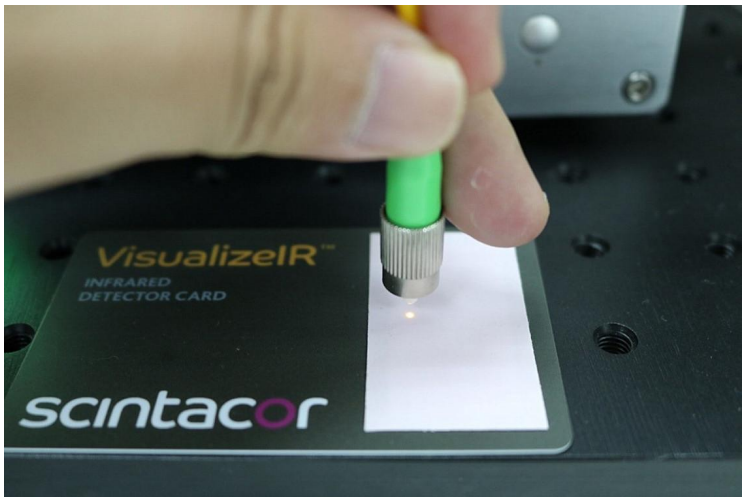
Test Data
Test Spectrum
Test Conditions: Temperature: 20°C; Test Current: 250mA



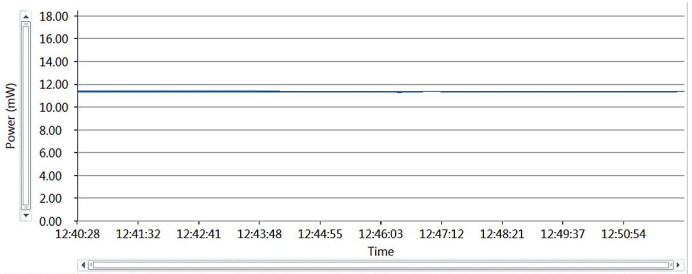
Wavelength Stability



Beam Quality



Power Test Table (@ 250mA) & Power Stability



Most Recent Value	Samples	Time
11.41 mW	100000	00:11:33

SLD light source power stability test curve

Ordering info
Ordering Information
Model: LP-SLD-850-PG-<OPP>-<BWD>-FT
PG:
B: Benchtop

M: Module
OPP: Output power in mW (e.g., 10 = 10mW, 50 = 50mW)
BWD :
25: 25nm
40: 40nm
50: 50nm
60: 60nm
80: 80nm
100: 100nm
FT:
SM = HI780
PM = PM850