### **SLD Light Source Module**

Part Number: IPSDS0905-××××

#### 1. Configuration

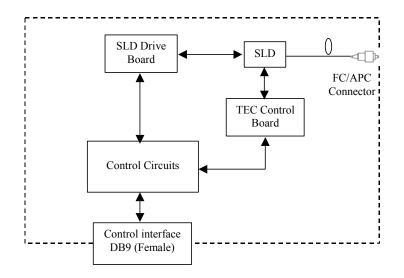


Figure 1 Configuration of IPSDS0905-×××× SLD light source module

#### 2. Absolute Maximum Ratings

Parameter	Min.	Max.	Unit
Power Supply Voltage	4.5	5.5	V
Storage Temperature	-40	+85	°C
Humidity	10	95	%

#### 3. Recommended Operational Condition

Parameter	Min.	Тур.	Max.	Unit
Power Supply Voltage	4.75	5.00	5.25	V
Ripple/spike noise of Power Supply Voltage	-	50	120	mV <sub>p-p</sub>
Operating Temperature	15	25	50	°C
Operating Humidity	30	60	90	%

#### 4. Optical characteristics

Itoms	Specifications			Unit	Notes
Items	Min.	Тур.	Max.	Umt	notes
Center Wavelength	900	920	940	nm	@ 25°C and CW.
@ -3dB					Connectors are included.
3dB Optical Bandwidth	90	100	-	nm	
Optical Output Power	3	5	-	mW	
ASE Ripple @ 0.1nm	-	0.1	0.2	dB	
Optical Power Stability	-	-	±0.1	dB	Stability test of P <sub>max</sub> after
(8hr)					0.5 hour warm up at 25°C
Optical Output Type	FC adaptor or pigtail fiber			-	As shown in Figure 2 of
		out			Section 7 in detail
Fiber Connector	FC	FC or SC type		-	
Fiber Type	Corning HI780 or equivalent			-	
Fiber Jacket	900µm loose tube			-	
Fiber Length	0.5	-	-	m	If pigtail fiber out is
					selected.

### **5.** Electrical characteristics

Itom	Item Specifications Uni		Units	Notes	
Item	Min.	Тур.	Max.	Units	notes
Power supply current	-	1.0	2.0	Α	Pmax CW optical output
Power consumption	-	5.0	10.0	W	
Range of V <sub>SET</sub>	0.0	-	2.5	V	
Input impedance for V <sub>SET</sub>	> 20k			Ω	
VH for TTL input/output	3.80	-	-	V	For SLD Enable and Alarm
VL for TTL input/output	-	-	1.02	V	
Optical Power Control	SLD Current Adjustment			-	
	via $V_{SET}$ as shown in				
	Section 6 in detail				
Connector Type	DB9 Connector, Female			-	See section 6 for Pin
					Allocation in detail

#### 6. Pin Assignment Specifications

#### **DB9** Connector Pin Allocation

Pin #	Function	In/Out	Туре	Description
1	+5VDC	IN	Analog (5.0V)	Power Supply, $\leq 2A$ .
2	NC	NA	NA	Reserved
3	SLD Enable	IN	TTL	SLD turn on control. TTL high turns on SLD and TTL low turns off SLD. See Figure 3 in detail.
4	Alarm	OUT	TTL	TEC operation status. TTL high indicates that TEC failure has activated and TTL low indicates that TEC operation is normal. See Figure 3 in detail.
5	V <sub>SET</sub>	IN	Analog (0~2.5V)	Input voltage to set SLD current. The range of 0.0-2.5V for $V_{SET}$ corresponds to $0 \sim I_{max}$ mA of SLD operation current.
6	GND	IN	GND	Power supply and signals GND.
7	NC	NA	NA	Reserved
8	NC	NA	NA	Reserved
9	NC	NA	NA	Reserved

#### 7. Mechanical Specifications

31. Drawing and dimensions (unit: mm): 100mm(L)×80mm(W)×26mm(H)

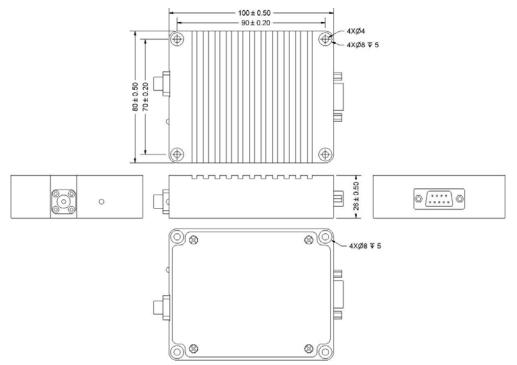


Figure 2 Mechanical drawing of module box (FC/APC connector with FC adaptor)

2. Module case is isolated from any electrical connection.

#### 8. Signals Characteristics

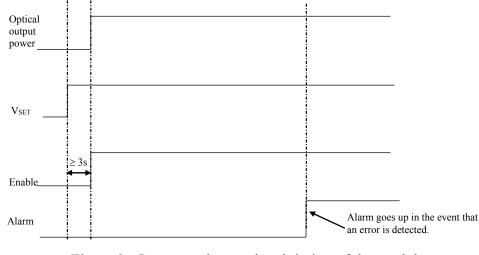


Figure 3 Startup and operational timing of the module

#### 9. Part Numbering Structure of SLD light source module

Model Number	
07**: 700~790nm SLD	
08**: 800~890nm SLD	
09**: 900~990nm SLD	
10**: 1010~1090nm SLD	
13**: 1300~1390nm SLD	
14**: 1400~1490nm SLD	
15**: 1500~1590nm SLD	
Output Type	
0: FC Adaptor	
1: Pigtail fiber	
Connector Type	
0: No Connectors	
3: FC/APC 4: FC/UPC	
7: SC/APC 8: SC/UPC	
Fiber Type	
1: 900µm SM Fiber	
2: 900µm PM Fiber	
Case Size	

- 1: 100×80×26mm case
- 2: 130×100×26mm case
- 3: 130×115×36mm case

**Example:** IPSDS0701-1011: 700nm-type SLD light source module in 100×80×26mm case with pigtail fiber output, 900µm SM fiber without connector

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