

SLD Light Source Module

Part Number: IPSDS1510-×××

1. Configuration

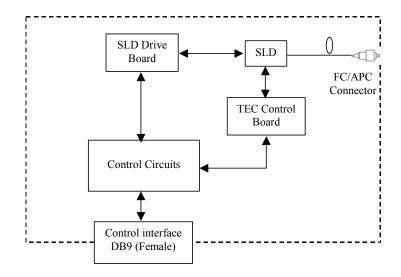


Figure 1 Configuration of IPSDS1510-×××× SLD light source module

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.	Typ.	Max.	Unit
Power Supply Voltage	4.75	5.00	5.25	V
Ripple/spike noise of Power Supply Voltage	-	50	120	mV_{p-p}
Operating Temperature	15	25	50	°C
Operating Humidity	30	60	90	%



4. Optical characteristics

Items	Specifications			Unit	Notes
Items	Min.	Typ.	Max.	Omt	Notes
Center Wavelength	1570	1580	1590	nm	@ 25°C and CW.
@ -3dB					Connectors are included.
3dB Optical Bandwidth	55	60	-	nm	
Optical Output Power	3	5	-	mW	
ASE Ripple @ 0.1nm	-	0.2	0.3	dB	
Optical Power Stability	-	-	±0.1	dB	Stability test of P _{max} 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 or SC type		-		
Fiber Type	Corning SM-28 or		-		
	equivalent				
Fiber Jacket	900µm loose tube		-		
Fiber Length	0.5	-	-	m	If pigtail fiber out is
					selected.

5. Electrical characteristics

Item	Specifications			Units	Notes	
Item	Min.	Typ.	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 _{SET}	0.0	-	2.5	V		
Input impedance for V _{SET}	> 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	Type	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	$V_{ m SET}$	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

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7. Mechanical Specifications

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

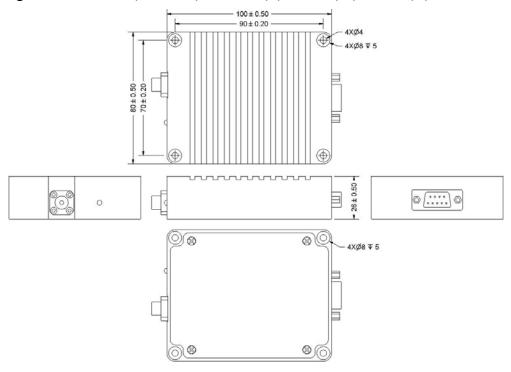


Figure 2 Mechanical drawing of module box (FC/APC connector with FC adaptor)

2. Module case is isolated from any electrical connection.

8. Signals Characteristics

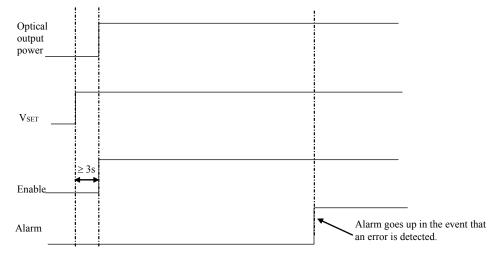
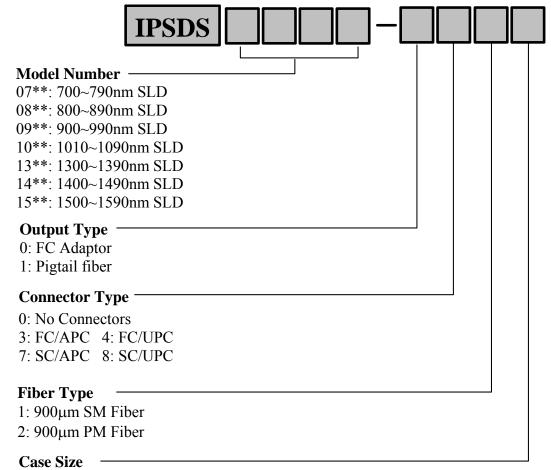


Figure 3 Startup and operational timing of the module

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9. Part Numbering Structure of SLD light source module



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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