

# INPHENIX

## Broadband SLD Light Source Module

Part Number: IPSDW0835-0315

### 1. Configuration

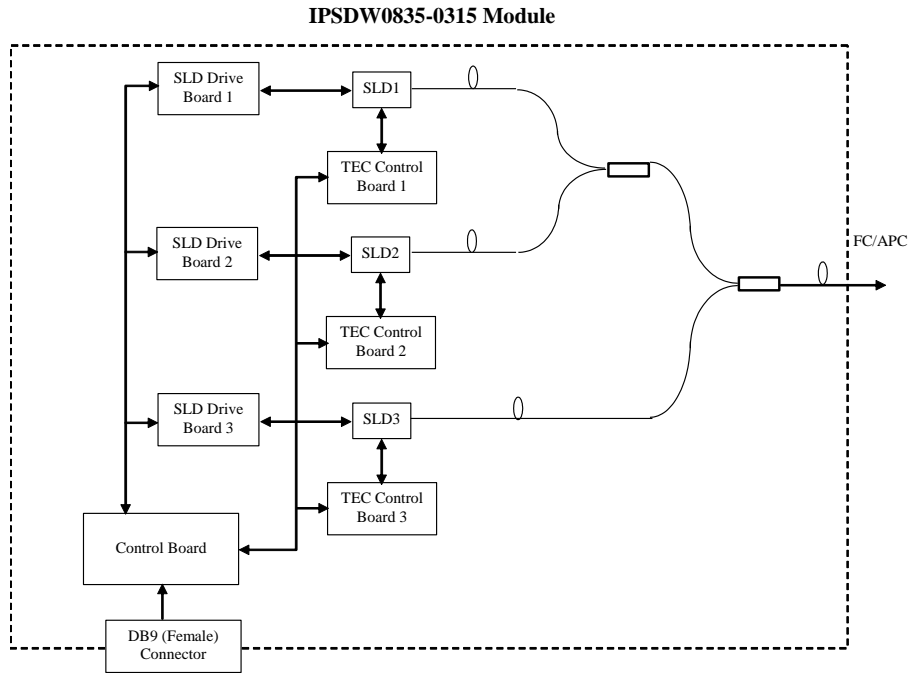


Figure 1 Configuration of IPSDW0835-0315 module

### 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 <sub>p-p</sub>
Operating Temperature	10	25	55	°C
Operating Humidity	30	60	90	%



#### 4. Optical characteristics

Items	Specifications			Unit	Notes
	Min.	Typ.	Max.		
Center Wavelength	830	850	870	nm	@25°C and CW. Connectors are included.
Total Optical Power	5.0	-	-	mW	
3 dB Optical Bandwidth	120	-	-	nm	
Wavelength Range@-6 dB	770	-	930	nm	
ASE Ripple @ 0.1nm	-	-	5	%	
Spectrum Flatness	-	1.0	2.0	dB	
Optical Power Stability (8hr)	-	-	±0.1	dB	Stability test of Pmax after 0.5 hour warm up at 25°C.
Optical Output Type	Fiber pigtail or FC Adaptor			-	As shown in Figure 3 of Section 8 in detail
Fiber Connector	FC/APC			-	
Fiber Type	Corning HI780 or equivalent			-	
Fiber jacker	900um loose tube			-	
Fiber Length	50	-	-	cm	
					If pigtail fiber out is selected.

#### 5. Electrical characteristics

Item	Specifications			Unit	Notes
	Min.	Typ.	Max.		
Power supply current	-	1.2	2.5	A	Pmax CW optical output
Power consumption	-	6.0	13.0	W	
Range of Vset1,2,3	0.0	-	2.5	V	
Input impedance for Vset1,2,3	>20k			ohm	
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 Vset1 and Vset2 as shown in Section 6			-	
Connector Type	DB9 Connector, Female			-	See section 6-Pin Allocation in detail



## 6. Pin-Out Assignment and Specifications

### 1. DB9 Connector Pin Allocation

Pin #	Function	In/Out	Type	Description
1	+5VDC	IN	Analog (5.0V)	Power Supply, $\leq 3A$ .
2				
3	<b>SLD Enable</b>	IN	TTL	SLD turn on control. TTL high turns on SLD and TTL low turns off the SLD. See Figure 2 in detail.
4	<b>Alarm</b>	OUT	TTL	TEC operation status. TTL high indicates TEC failure and TTL low indicates TEC operation is in normal. See Figure 2 in detail.
5	$V_{SET1}$	IN	Analog (0~2.5)V	Input voltage to set SLD1 current. The range of 0.0-2.5V for $V_{SET1}$ corresponds to 0~I1max mA of SLD1 operation current.
6	<b>GND</b>	IN	GND	Power supply and signals GND.
7				
8	$V_{SET3}$	IN	Analog (0~2.5)V	Input voltage to set SLD3 current. The range of 0.0-2.5V for $V_{SET2}$ corresponds to 0~I3max mA of SLD3 operation current.
9	$V_{SET2}$	IN	Analog (0~2.5)V	Input voltage to set SLD2 current. The range of 0.0-2.5V for $V_{SET2}$ corresponds to 0~I2max mA of SLD2 operation current.

## 7. Signals Characteristics

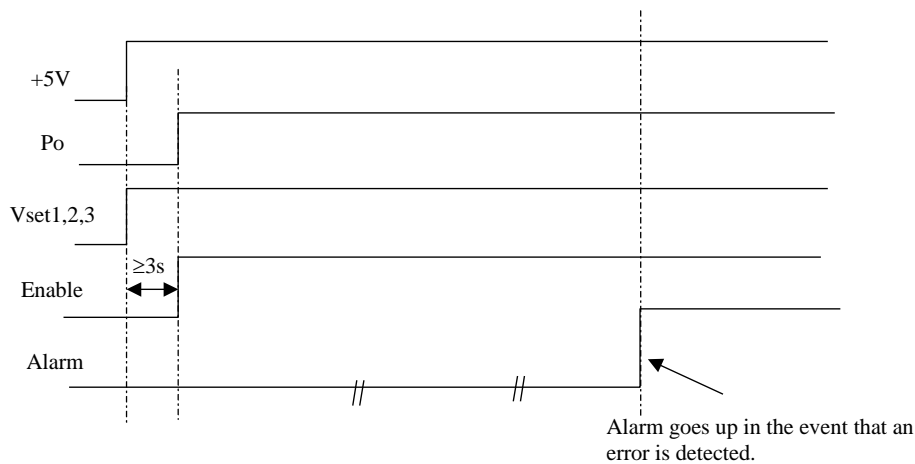


Figure 2 Startup and working timing of IPSDW0835 module



## 8. Mechanical Specifications

1. Drawing and dimensions (unit: mm)

Size: 120mm (L) × 100mm (W) × 36mm (H)

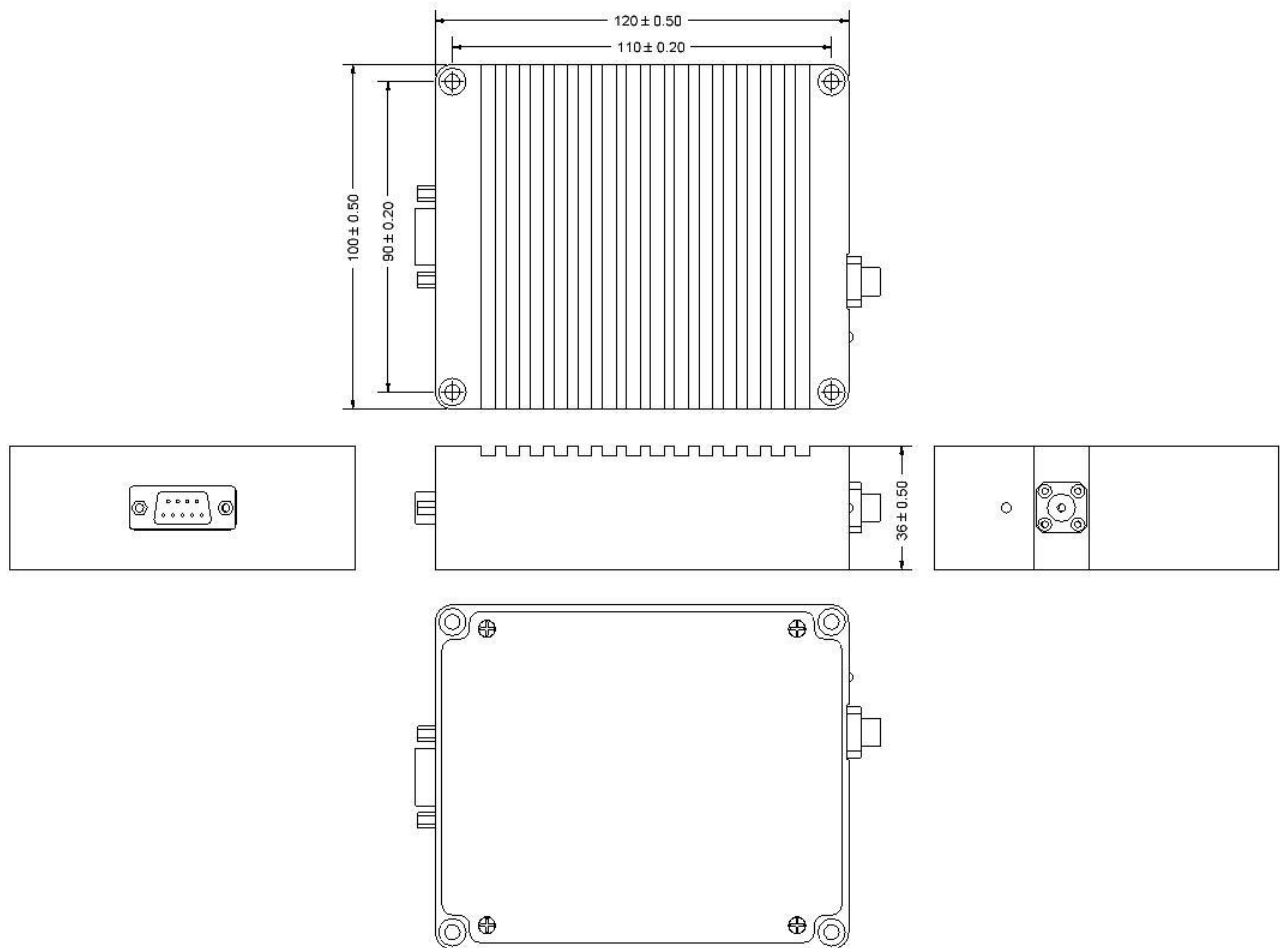
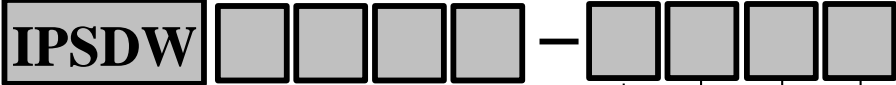


Figure 3 Mechanical drawing of IPSDW0835-0315

2. Module case is isolated from any electrical connection.



9. Part Numbering Structure



**Model Number**

- 07xx: 700~790nm SLD
- 08xx: 800~890nm SLD
- 09xx: 900~990nm SLD
- 10xx: 1010~1090nm SLD
- 13xx: 1300~1390nm SLD
- 15xx: 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**

- 1-900 μm SM Fiber
- 2-900 μm PM Fiber

**Case Size**

- 5: 120x100x36mm case

**Example:** IPSDW0835-0315: 850nm-type SLD module in 120x100x36mm case with FC/adaptor, FC/APC connector and 900 μm SM Fiber.