

Technical Specifications

Model No.	Pump-974-8-150-SM-025-FC/PC
Product Name	8-pin 980nm Cooled Pump Laser
Technical File	OP.01.0252-000/OP.01.0252-001_SPEC
Version	V1.0

PRODUCT SPECIFICATION

1. Performance

Parameter	Level P			Level A			Unit	Remark
	Min	Typ.	Max	Min	Typ.	Max		
Operating Wavelength	973	974	978	973	974	978	nm	
Output Optical Power	130	-	-	110	-	-	mW	I _{OP} =250mA
Threshold Current	-	-	35	-	-	35	mA	Max Injection Current
Operating Voltage	-	-	2	-	-	2	V	@100mA
13dB Bandwidth	-	-	0.8	-	-	0.8	nm	@100mA
Side Mode Suppression Ratio	40	-	-	35	-	-	dB	
Peak Wavelength Shift Rate	-	-	0.01	-	-	0.01	nm/°C	
Wavelength Variation @Full Temperature	-	-	1.2	-	-	1.5	nm	
Power Variation @Room Temperature	-	-	4	-	-	5	μW	@100mA, 5min
Power Variation @Full Temperature	-	-	8	-	-	-	%	$\frac{2 \times (P_{MAX} - P_{MIN})}{P_{MAX} + P_{MIN}}$
Max Cooling Current @Full Temperature	-	-	1200	-	-	1200	mA	
Thermistor Beta Value	-	3950	-	-	3950	-	K	@25°C
Thermistor Resistance	9.5	10	10.5	9.5	10	10.5	kΩ	@25°C
Chip Operating Temperature	20	-	30	-	25	-	°C	
Device Operating Temperature	-50	-	75	-45	-	75	°C	
Fiber Type	HI1060			HI1060				
Grating Type	Dual-grating			Dual-grating				
TEC Working Current	-	-	1	-	-	1	A	@250mA, 75°C
TEC Working Voltage	-	-	1.6	-	-	1.6	V	
TEC Power Consumption	-	-	1.6	-	-	1.6	W	
Device Power Consumption	-	2	2.2	-	2	2.2	W	

2. Working Environment

Parameter	Min.	Typ.	Max.	Unit
Working Temperature	-50	-	75	°C
Storage Temperature	-55	-	85	-55
Working Humidity	5	-	95	%

3. Electrical Specifications

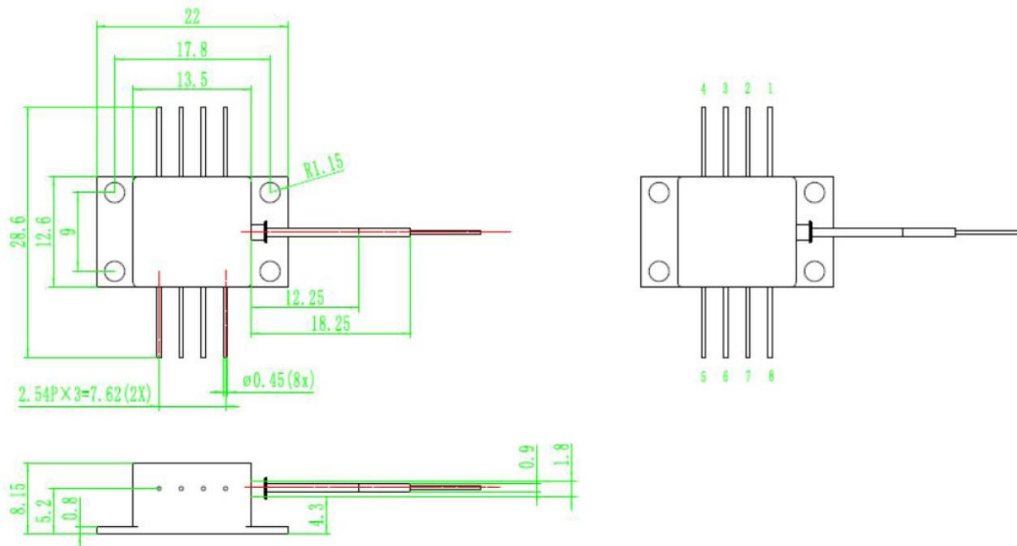
Parameter	Min.	Typ.	Max.	Unit
Power Supply	+4.75	+5	+5.25	V
Power Consumption	-	10	15	W

4. Absolute Maximum Ratings

Communication: RS232 26-pin. PIN Assignment as below.

Parameter	Min	Typ.	Max	Unit	Remark
Fiber Pulling Force (Axial)	-	-	10	N	3 × 10s
Fiber Pulling Force (Lateral)	-	-	5	N	3 × 10s
Fiber Bending Radius	13	-	-	mm	
Soldering Temperature	-	-	350	°C	10s
LD Maximum Forward Current	-	-	500	mA	
LD Transient Current	-	-	-	mA	1000ns max
LD Reverse Current	-	-	-	μ A	
LD Reverse Voltage	-	-	2	V	Continuous Bias
TEC Maximum Current	-	-	260	mA	The thermistor and TEC are always operated under closed-loop control
TEC Maximum Voltage	-	-	3.6		

5. Mechanical Structure



Pin No.	1	2	3	4	5	6	7	8
Pin Definition	TEC+	Therm	Therm	LD+	LD-	NC	NC	TEC-

6. Pigtail

Items	Specifications	Remarks
Pigtail Length	$\geq 2.8\text{m}$	
Connector Type	Bare Fiber, FC/PC, FC/APC	Optional