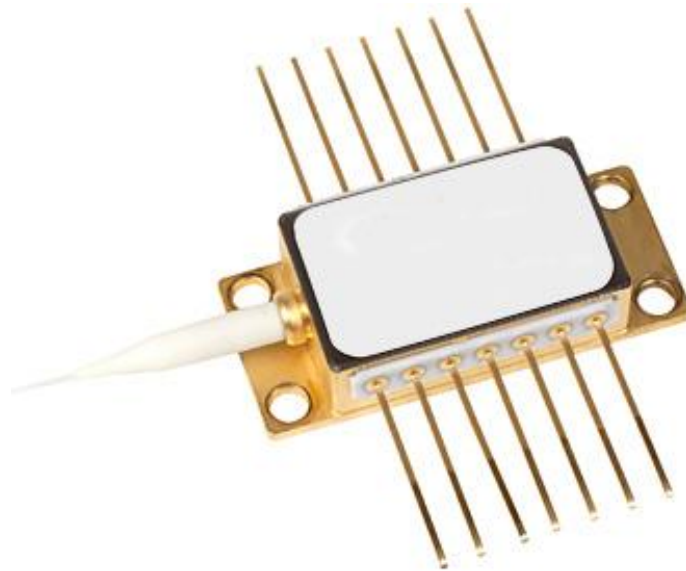




976nm 420mW SM Pumping Laser



- **Product Description**

Optional peak wavelength, optional output power, and optional FC/APC connector.

- **Product features**

Single-mode fiber output; high power stability; narrow linewidth characteristic; low noise design; industrial-grade package

- **Part Number**

MP-FP-976-420-14BF-SM

● Application area

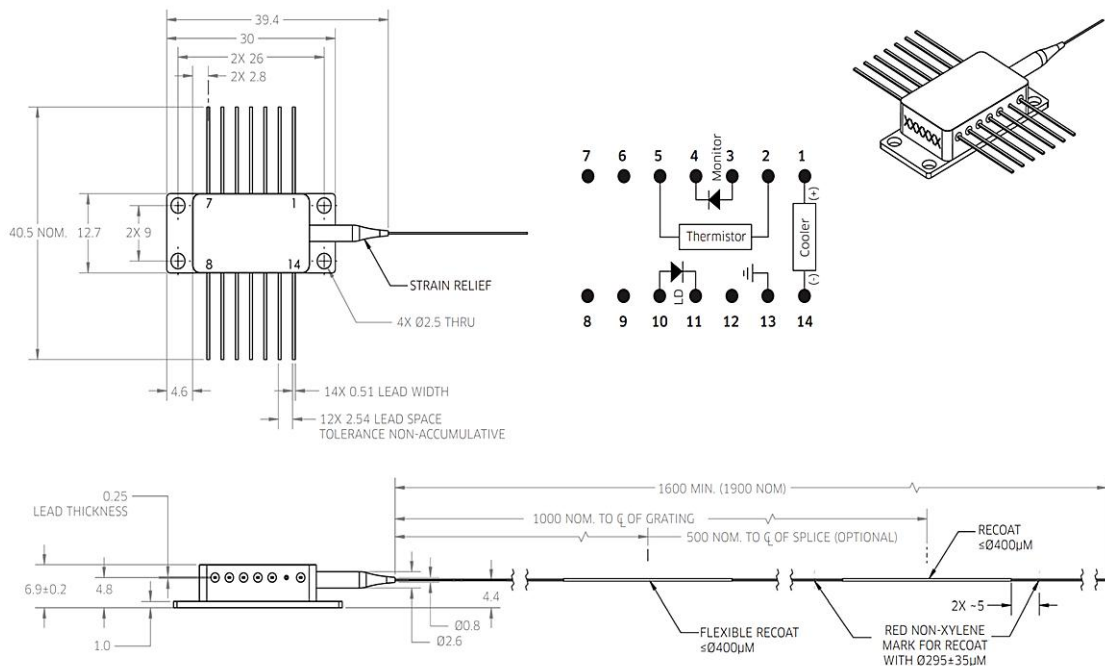
Fiber Amplifier Pumping | Fiber Lasers | Coherent Optical Communication |

Fiber Optic Sensing | Quantum Technology

● Core parameters

Center Wavelength	Output Power
976nm	420mW

● Dimension Drawing



● General Parameters

Model Parameters

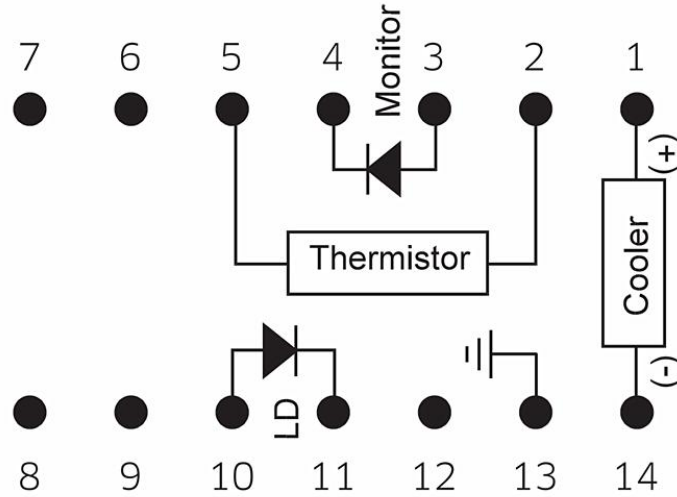
Parameter	Symbol	Min	Typ	Max	Unit
Center Wavelength	λ	974	976	980	nm
Spectral Width	$\Delta\lambda$	0.6	0.8	2.0	nm
Threshold Current	I_{th}	-	-	42	mA
Operating Current	I_{op}	-	-	1000	mA
Fiber Output Power	P_f	-	420	460	mW
Wavelength Tuning vs. Temperature	$\Delta\lambda/T$	-	-	0.01	nm/°C
Tracking Ratio ($0.1P_{op} < P_f < P_{op}$) ¹	TR	0.75	-	1.25	-
Tracking Error ²	TE	-25	-	25	-
PD Monitor Responsivity	IBF	1	-	5	$\mu\text{A}/\text{mW}$
PD Dark Current (VRD = 5 V)	I_d	-	-	0.1	μA
Fiber Type	HI1060				

Forward Voltage	V_f	-	1.8	2.5	V
Thermistor Resistance	R_T	9.5	10	10.5	kΩ
Output Connector	-	-	None or FC/APC	-	-

HI1060 Fiber Characteristics & Tolerances

Parameter	Value
Cut-off Wavelength	920 nm
Maximum Attenuation	2.1 dB/km
Cladding Diameter	125 μm
Coating Diameter	250 μm
Core-Cladding Concentricity Error	≤ 0.5 μm
Mode Field Diameter	5.9 μm

Pin Definitions



Pin	Description	Pin	Description
1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (-)



Ordering Information

Peak Wavelength	Maximum Operating Power
973.0 to 975.0 nm	100 mW
975.0 to 977.0 nm	120 mW
973.0 to 981.5 nm	140 mW
	160 mW
	180 mW
	200 mW
	220 mW
	240 mW
	260 mW
	280 mW
	300 mW
	320 mW
	340 mW
	360 mW
	380 mW
	400 mW
	420 mW
	440 mW
	460 mW