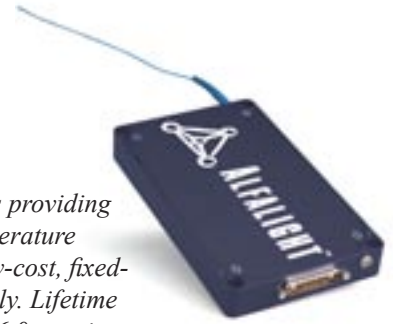




Wavelength Stabilized CPM II

27W 7 Fiber Output



The CPM-II products are ideal high-brightness fiber laser pump sources providing precision wavelength control of the pump light through integrated temperature stabilization. The compact $4.5 \times 7 \times 1$ inch solution requires only a low-cost, fixed-voltage supply to drive the temperature control and a laser current supply. Lifetime exceeds 10,000 hours. Wavelength is adjustable from the factory-set 976.0 nm via an on-board potentiometer or optional external voltage input. A 2-meter cable is included.

The AC2-976-17-273 provides 27 watts of 976 nm fiber-coupled light output (105 micron, 0.15NA).



Features

- 27 watts output power
- Seven 105 μm / 0.15NA fiber-coupled outputs
- Stable 976.0nm output with integrated controller requires only fixed 3.3/5V power supply
- Advanced diode protection circuitry
- Highly reliable hermetic design
- Compact $4.5 \times 7 \times 1$ inch module

Applications

- Fiber laser pumping
- Pulsed fiber lasers
- Power amplifiers
- LIDAR/LADAR
- Pulsed and CW operation

Device Characteristics

Optical Performance - Pump	Symbol	AC2-976-17-273	Unit
CW optical output power	P_{op}	27	W
Center wavelength, operating	λ_c	976 ± 0.5	nm
Wavelength adjustment control	nm	± 2	nm
Spectral width, FWHM	$\Delta\lambda$	3.5	nm
Output fiber		7x 105 μm /0.15 NA	
Encircled flux		> 95%	
Pump power optical monitor		50	mV/W
Connector termination		8°	cleave
Fiber jacket		900 μm furcation	

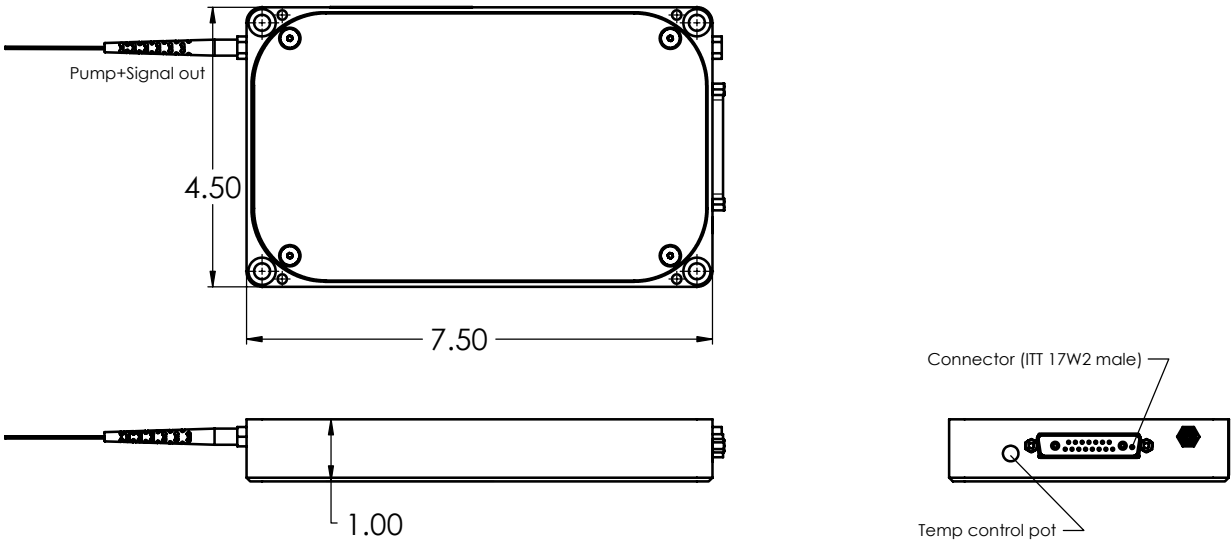
Electrical-Optical Performance-Pump

Operating current	I_o	5.8 (typical)	A
Operating voltage	V_o	12.2 (typical)	V
Operating mode	R_s	CW or pulsed	
Overvoltage/overcurrent protection		Provided	

Thermal Performance

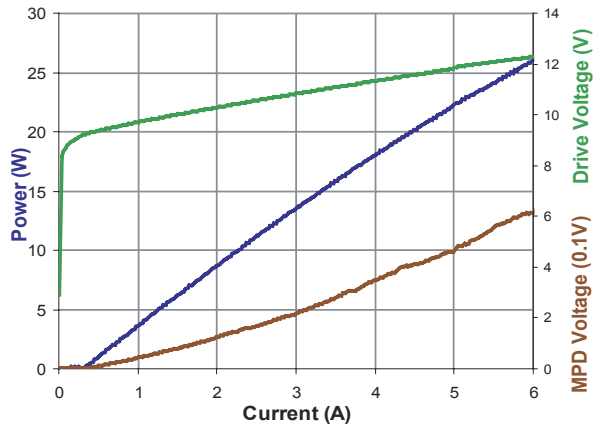
Power requirements	Fixed voltage source required to drive TEC and control circuit		
Supply voltage		3.3 - 5.0	V
Supply current		8.5 (typical)	A
Laser operating temperature	T_{set}	10 - 40	°C
Case operating temperature	T_{case}	15 - 45	°C
Dissipation		58 W (typical) at 25°C	

Package Dimensions

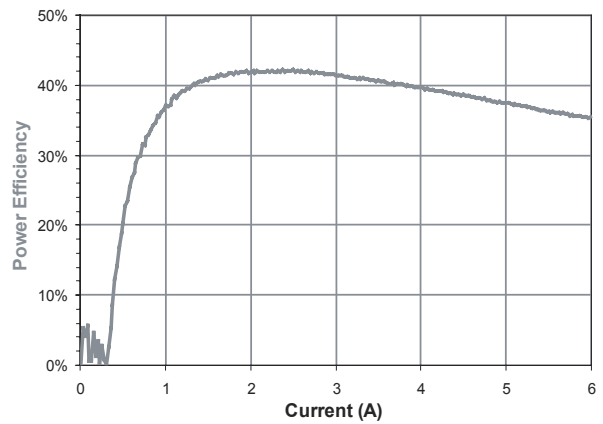


Typical Performance

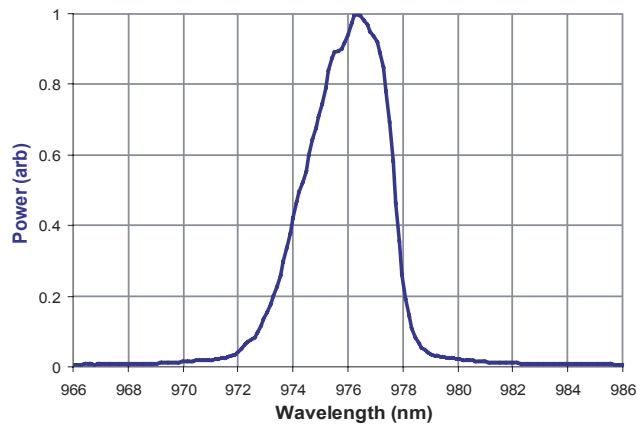
LIV Characteristics



Power Conversion Efficiency



976 nm Optical Spectrum



Alfalight, Inc.

1832 Wright Street • Madison, WI 53704 • 608.240.4800 **telephone** • 608.240.4801 **facsimile** • alfa-sales@alfalight.com

Copyright © 2005 Alfalight, Inc.

QS4242 v1.0