

Uncooled Multimode Pump Laser Modules

B10-915 B10-975

Multi-mode Pump Laser modules from Spectra-Physics Telecom are available at wavelengths of 915 nm and 975 nm, packaged in a fiber-coupled 14-pin butterfly package. Laser chip is optimized for over 50% power efficiency and high-temperature operation. Improved fiber-coupling techniques result in over 1 W out of a 100 μm , 0.15 NA fiber, making it a high brightness multimode pump laser module. Spectra-Physics Telecom has also leveraged its high-volume laser diode fabrication expertise to ramp up production of these Telecom pump lasermodules. Full qualification for high reliability Telecom pump application is ongoing.

915 nm and 975 nm

pump lasers in fiber-coupled

14-pin butterfly packages.

Features

- ▲ Fiber-coupled power output of over 1 W
- 100 μm core, 0.15 NA high-brightness fiber-coupled output
- Available at 915 nm & 975 nm wavelengths
- No internal TE-cooler
- ▲ Electrically isolated case

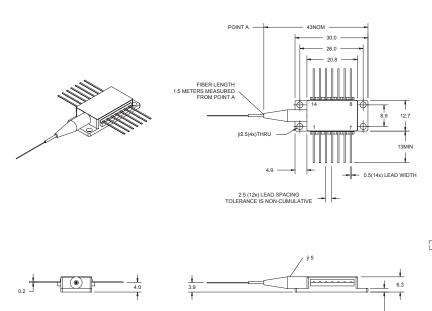
Applications

- Pumping Raman fiber lasers
- Pumping ytterbium-doped double-clad fiber lasers
- Pumping double-clad fiber amplifiers
- Pumping waveguide amplifiers
- ▲ Pumping specialty fiber amplifiers



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Parameter	Condition	Symbol	Min.	Max.	Units
Laser Characteristics					
Optical power (fiber)	lop= 2.0 A	Pop	0.90	1.20	W
Center wavelength	$T_s = 25^{\circ}C$	λρ	910/970	920/980	nm
Operating current		lop	-	2.6	А
Laser threshold	$T_s = 25^{\circ}C$	lth	-	400	mA
Output W/A	Fiber output	λ	0.45	-	W/A
Operating voltage	lf = lop	Vf	-	1.9	V
Spectral bandwidth	FWHM	$\Delta\lambda$	-	5	nm
Power in spectral band	λ = λ p ±2.5 nm	Pband	90	-	%
Spectral shift with temperature		Δλ /ΔΤ	-	0.38	nm/°C
Monitor Photodiode					
Responsivity	Vr = -3 V	lm	10	200	μA/W
Dark current	$I_f = 0 \text{ mA}$	Id	-	1	μА
Reverse voltage		Vr		5.0	V
Temperature Control					
Sensor	$Ts = 25^{\circ}C$	Rт	9.8	10.2	kΩ
Temperature range	Case	ΔΤ	-20	65	'C
Storage temperature	Hum. < 20%		-40	80	,C
Fiber Pigtail				Typical	
Fiber core diameter				105	μm
Fiber N.A.				0.15	
Fiber cladding				125	μm
Fiber buffer diameter				250	μm
Fiber length				1.5	meter
Fiber bend diameter			2.0	> 5	cm
Fiber end style	cleaved end				



ELECTRICAL SCHEMATIC

LEAD CONNECTIONS

1 = N/C

2 = THERMISTOR

3 = MONITOR PD ANODE

4 = MONITOR PD CATHODE

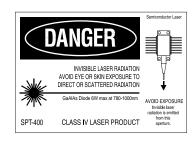
5 = THERMISTOR

6 = N/C

6 = N/C 7 = N/C 8 = N/C

8 = N/C 9 = N/C 10 = LASER ANODE 11 = LASER CATHODE 12 = N/C 13 = CASE GROUND 14 = N/C

13 12 BYPASS DIODE THERMISTOR



Due to our continuous improvement program, specifications are subject change without notice.