

Multimode Pump Laser Modules

BT15-915
BT15-975

*915 nm and 975 nm
pump lasers in fiber-coupled
14-pin butterfly packages.*

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 1.5 Watts out of a 100 μm , 0.15 NA fiber, making it a high brightness multi-mode pump laser module. Spectra-Physics Telecom has also leveraged its high-volume laser diode fabrication expertise to ramp up production of these Telecom pump laser modules. Full qualification for high reliability Telecom pump application is ongoing.

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
- ▲ TE-cooled internally
- ▲ Electrically isolated case

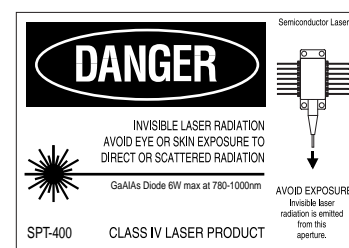
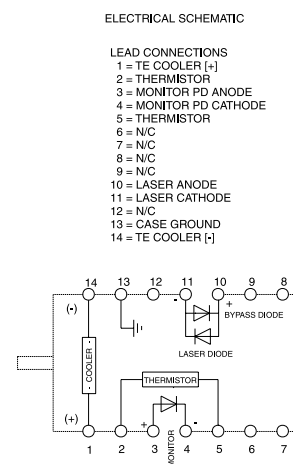
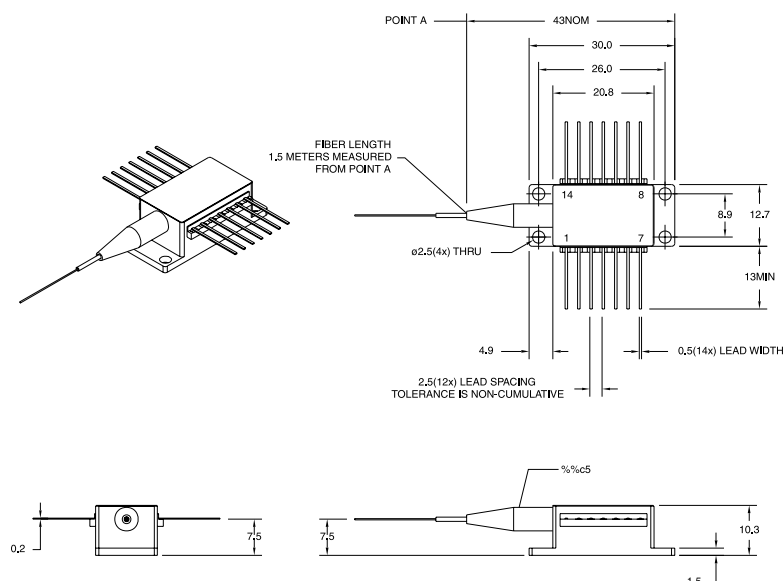
Applications

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

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Parameter	Condition	Symbol	Min.	Max.	Units
Laser Characteristics					
Optical power (fiber)	I _{op} = 2.65 A	P _{op}	1.4	-	W
Center wavelength	T _s = 25°C	λ _p	910/970	920/980	nm
Operating current		I _{op}	-	3.2	A
Laser threshold	T _s = 25°C	I _{th}	-	420	mA
Output W/A	Fiber output		0.50	-	W/A
Operating voltage	I _f = I _{op}	V _f	-	1.9	V
Spectral bandwidth	FWHM	Δλ	-	5	nm
Power in spectral band	λ=λ _p ±2.5 nm	P _{band}	90	-	%
Spectral shift with temperature		Δλ /ΔT	-	0.38 (TYP)	nm/°C
Monitor Photodiode					
Current	I _f = I _{op}	I _m	40	600	μA
Reverse voltage		V _r	-	5.0	V
Temperature Control					
Sensor	T _s = 25°C	R _T	-	10.5	kΩ
TEC drive current	P _{op} =1.5 W, ΔT=45°C	I _{TEC}	-	3.0	A
TEC drive voltage	P _{op} =1.5 W, ΔT=45°C	V _{TEC}	-	2.5	V
Temperature range	Case to laser	ΔT		45	°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				> 5	cm
Fiber end style	cleaved end				



*Please call the factory for additional wavelengths.
Due to our continuous improvement program, specifications are subject change without notice.