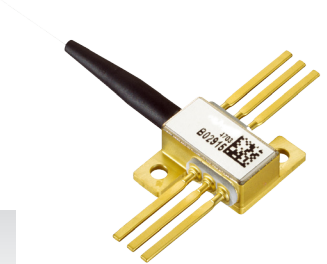


976 nm 6-pin Wavelength-Stabilized Lasers

Compound Photonics' Wavelength-Stabilized Technology (WST) pump lasers enable narrow spectral width and minimizes wavelength shift over temperature while maintaining high power conversion efficiency. These lasers do not require temperature control to maintain wavelength, reducing their energy consumption by up to three times over a thermally-controlled pump laser. These fiber-coupled devices offer 2.5 watts ex-fiber in high-reliability packages with high-brightness 105 μm /0.15 NA fiber. Fiber-coupled packages are fully qualified to GR-468.



Key Characteristics

- On-chip semiconductor grating
- Stable wavelength with temperature changes
- Narrow linewidth (~ 0.1 nm)
- Proven lifetime and fully environmentally qualified

Applications

- Fiber laser pumping
- Yb:YAG and Yb:KGW pumping
- Spectroscopy

Device Parameters*

XM6-976CW-10-251

Electro-Optical	Symbol	Min	Typ	Max	Units
Center wavelength	λ_c	976 \pm 1.5			nm
Output power	P_o	2.5			W
Operating current	I_o	3.6	4.2		A
Forward voltage	V_f	1.7	2.0		V
Threshold current	I_{th}	0.27	0.4		A
Spectral width, FWHM	$\Delta\lambda$	0.15			nm

Thermal

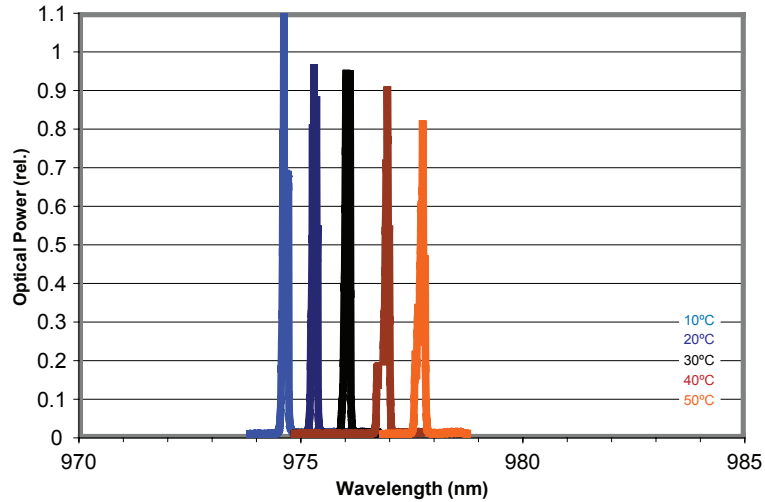
Spectral shift with temperature		0.07			nm/ $^{\circ}\text{C}$
Spectral shift with power		0.4			nm/W
Locking range over temperature		15	45		$^{\circ}\text{C}$
Locking range of power		0.5	2.5		W
Thermistor value at 25 $^{\circ}\text{C}$	R_{th}	9.5	10	10.5	k Ω
Thermistor constant, 0 - 50 $^{\circ}\text{C}$	β	3892			K

Mechanical

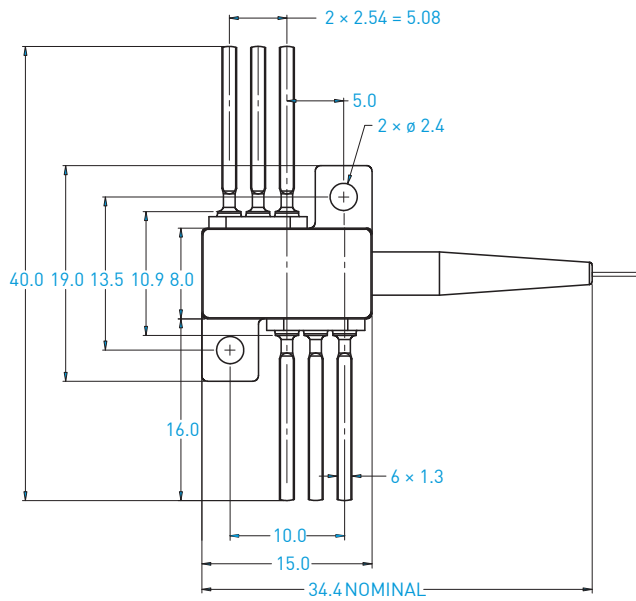
Case operating temperature		0	50		$^{\circ}\text{C}$
Case storage temperature		-40	85		$^{\circ}\text{C}$
Fiber core diameter		105			μm
Fiber numerical aperture	NA	0.15			
Fiber length		1.5			m
Fiber pull strength		1.0			kg-f

*All conditions at 25 $^{\circ}\text{C}$ case temperature and nominal output power unless otherwise noted.

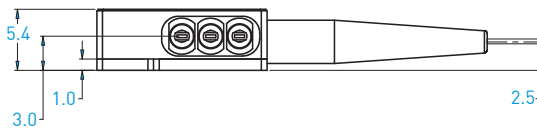
Typical Spectral Performance



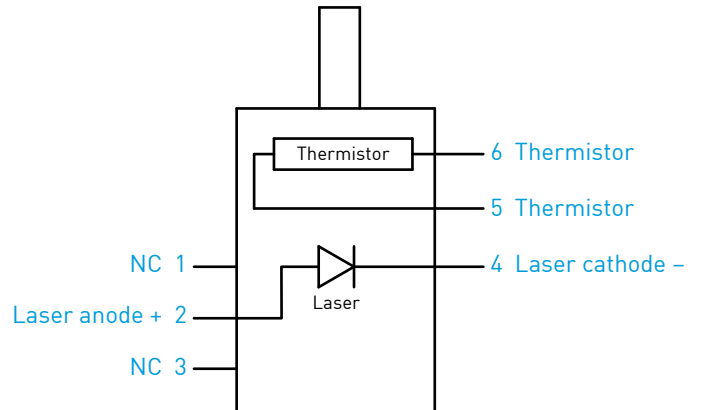
Package Dimensions



All units in mm



Package Pinout



For more information, ordering, and support.

www.compoundphotonics.com