

Starbright 980XM



The Starbright lasers are based on the company's novel proprietary feedback technology for broad-area emitting diode lasers.

Compact, Low Power Consumption, and Reliability

A passive feedback system causes the diode laser to emit an output power of 800 mW with near diffraction limited beam quality and single frequency operation.

The spectral linewidth of the Starbright lasers is very narrow, leading to a unique

combination of high power, excellent beam quality and perfect stability in terms of power and wavelength, even under the influence of strong ambient temperature changes. The laser is available with single mode fiber coupling and coupling to larger diameter fibers.

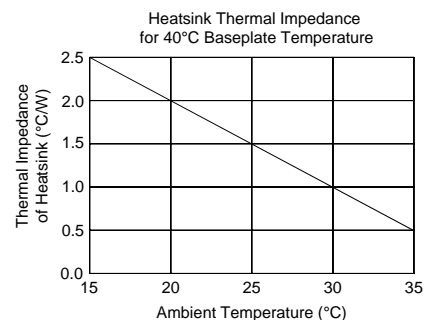
The Starbright 980 XM will enable:

Output power (CW)	800 mW
Wavelength	980 nm \pm 0.3 nm
Linewidth	\approx 10 – 15 MHz (single-frequency)
Wavelength stability	\approx 20 pm/100hr ambient temperature from 20 – 30 °C
Beam Diameter	0.7 mm (elliptical < 1.5:1)
Beam pointing stability	40 μ rad (15 – 35 °C)
Long term power stability	< 2% over 2 hrs
Noise, rms (20 Hz – 2 MHz)	< 0.5 %
Noise, peak - peak (20 Hz – 20 KHz)	< 1.5 %
Polarization	1:100
Beam quality	$M^2 < 1.7$
Beam Divergence (full angle)	2.9 mrad
Warm up time from Off	< 10 min
Warm up time from stand by	< 30 sec
Ambient temperature range	20 – 30 °C
Expected lifetime	> 10.000 hours
Power consumption	Max. 8A / 40 Watt
Physical dimensions, laser head incl. connector	124 x 73.5 x 44 mm (L x W x H)

It is required that the baseplate of the laserhead is attached to a heatsink. The required thermal impedance of the heatsink is illustrated below.

The laser system includes the Starbright laser controller. Please refer to separate specification sheet for more information.

The laser can easily be damaged by optical feedback and is therefore supplied with a high-quality optical Faraday isolator mounted.



Specifications are subject to change without notice.