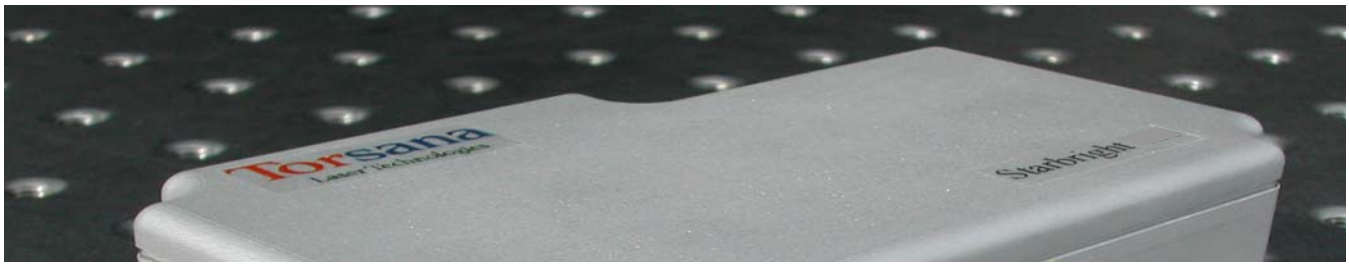
Starbright 1064XM



Ultra high resolution and short acquisition time

The Starbright lasers are based on a novel proprietary feedback technology for broad-area emitting diode lasers, delivering ideal specifications for analytical purposes. The StarBright 1064XM is designed specifically for FT Raman spectroscopy, but is equally suited for Lidar, interferometry, and frequency doubling. Its excellent ASE repression ensures collection of spectra exceptionally close to the laser line with very weak peaks.

Flawless stability in wavelength and output power

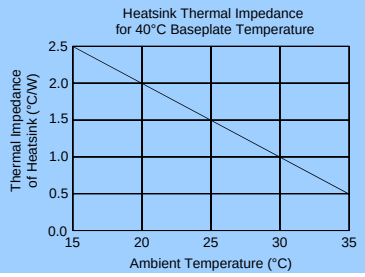
High power levels can be obtained while still maintaining an excellent beam quality, enabling short acquisition time as well as ultra high spatial and spectral resolution.

The spectral linewidth of the Starbright lasers is very to a unique combination of high power, good beam quality and perfect stability in terms of power and wavelength, even under the influence of strong ambient temperature changes.

Output power (CW)	1 W
Wavelength	1064 nm ± 0.3 nm
Linewidth	≈ 10 – 15 MHz (single-frequency) < 3.5 x 10^{-4} cm^{-1}, 2 x 10^{-6} nm
Wavelength stability	≈ 20 pm/100hr ambient temperature from 20 – 30 °C
Beam size	0.8 mm
Beam pointing stability	40 µrad (15 – 35 °C)
Long term power stability	< 2% over 2 hrs
Power noise, rms (20 Hz – 2 MHz)	< 0.5 %
Power noise, peak - peak (20 Hz – 20 KHz)	< 1.5 %
Polarization	1:100
Beam quality	M^2 < 2
Beam Divergence (full angle)	6 mrad
Warm up time from Off	< 10 min
Warm up time from stand by	< 60 sec
Ambient temperature range	20 – 30 °C
Expected lifetime	> 10.000 hours
Power consumption	Max. 8A / 40 Watt
Physical dimensions, laser head without isolator	124 x 73.5 x 44 mm (L x W x H)
Alignment tolerances: Beam position / Beam angle	± 0.7 mm / ± 0.7 mrad

The laser is available with single mode fiber coupling and coupling to larger diameter fibers. It includes the compact and versatile Starbright laser controller and a high-quality optical Faraday isolator to prevent optical feed back damage.

The laserhead must be attached to a heat sink. The required thermal impedance is illustrated opposite.



Specifications are subject to change without notice.

Torsana Laser Technologies A/S, www.torsanalaser.com, phone +45 45 56 00 56