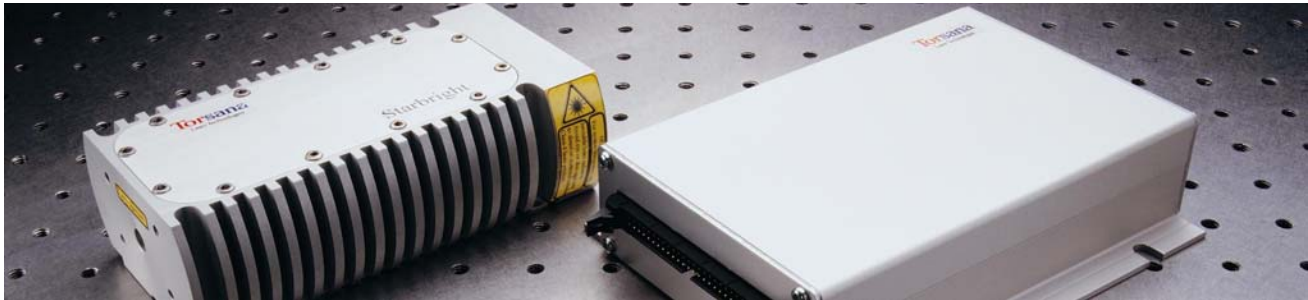


## Starbright 785 S



### Ultra high resolution and short acquisition time

The Starbright lasers are based on a novel proprietary feedback technology for broad-area emitting diode lasers. A passive feedback system causes the diode laser to emit an output power of 500 mW with very narrow line width and the spectral stability needed for Raman Spectroscopy. The long term spectral stability of the laser is ideal for process monitoring in industrial environment. The laser's high power level and narrow linewidth enables short acquisition time as well as high spectral resolution.

### Compact, reliable and power saving

The spectral linewidth of the Starbright lasers is very narrow, leading to ability to maintain the combination of high power and perfect stability in terms of power and wavelength, even under the influence of strong ambient temperature changes.

The Starbright 785 S laser is specifically designed for Raman spectroscopy. To fit every application, a fiber coupling module terminated with FC (or SMA) is available.

Output power (CW)	500 mW
Wavelength	785 nm $\pm$ 0.3 nm
Linewidth	< 0.1 nm (from 20 – 30 °C)
Wavelength stability	$\approx$ 0.006 nm/°C ambient temperature (from 20 – 30 °C)
Beam Diameter	1.5 x 2.5 mm (elliptical) $\pm$ 0.2 mm
Beam pointing stability	40 $\mu$ rad / 3 min
Power stability, 8 hrs peak - peak	< 1 % + 0.2 %/ °C ambient temperature
Noise, RMS	< 1 %
Polarization	Horizontally (100 : 1)
Beam quality	Horizontal: M2 < 1.3 Vertical: M2 < 15
Divergence angle	Horizontal: 1 mrad Vertical: < 5 mrad
Warm up time from Off	$\approx$ 30 sec
Warm up time from Standby	$\approx$ 10 sec
Expected lifetime	> 15.000 hours
Ambient temperature range	15 – 35 °C
Power consumption	Max. 5V / 4 A
Physical dimensions	152 x 84 x 46 mm (L x W x H)
Controller requirement	2 W

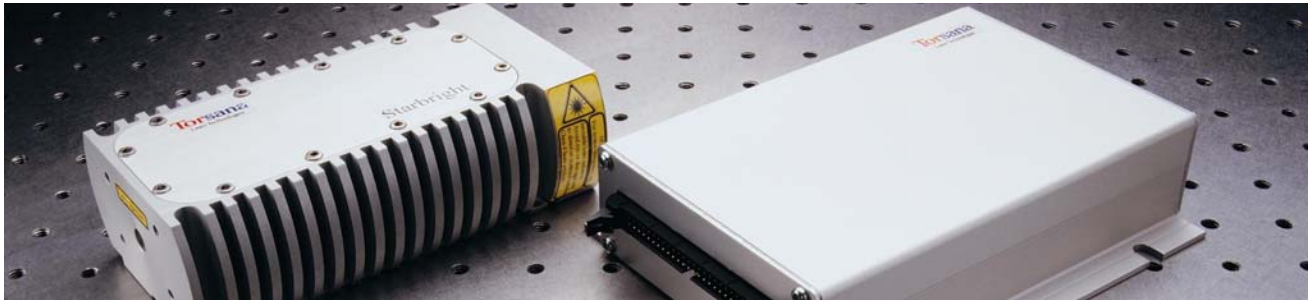
#### Fiber Coupling Module:

Fiber $\varnothing$	Coupling efficiency
100 $\mu$	80 %

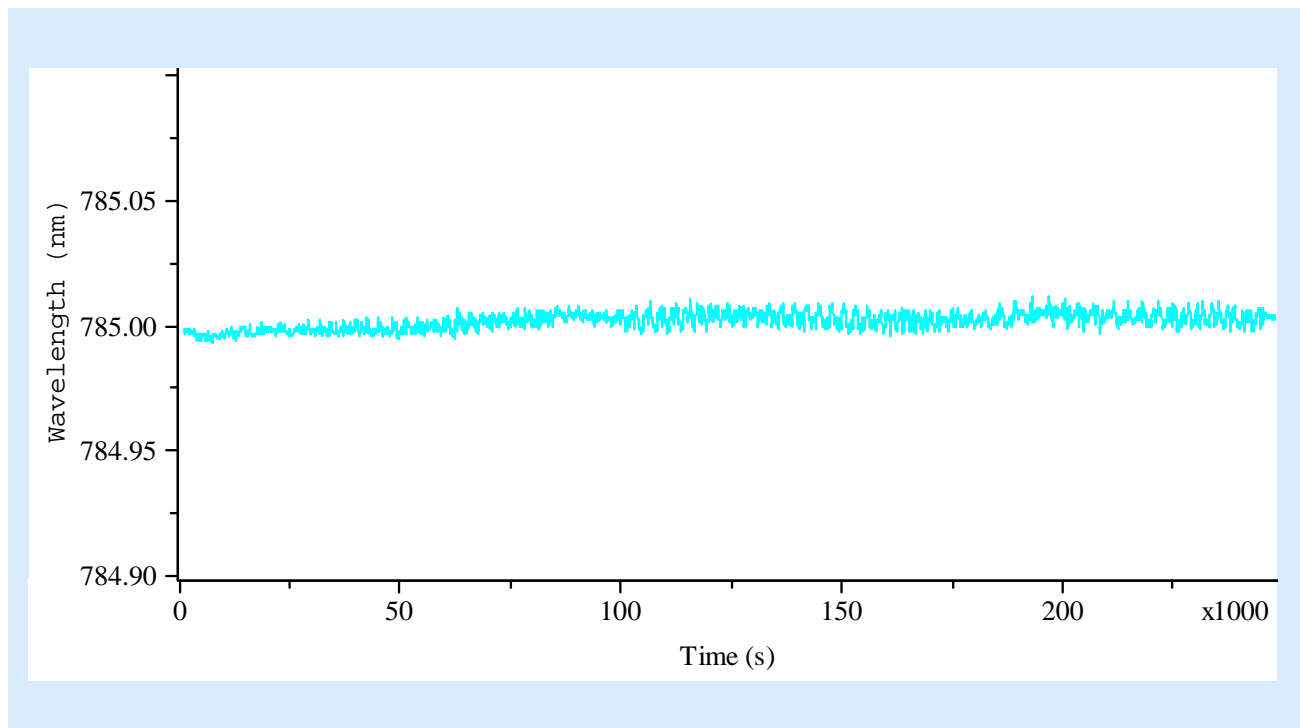
Specifications are subject to change without notice.

Torsana Laser Technologies A/S, [www.torsanalaser.com](http://www.torsanalaser.com), phone +45 45 56 00 56

## Starbright 785 S



Wavelength stability over 70 hours (courtesy of Jobin Yvon):



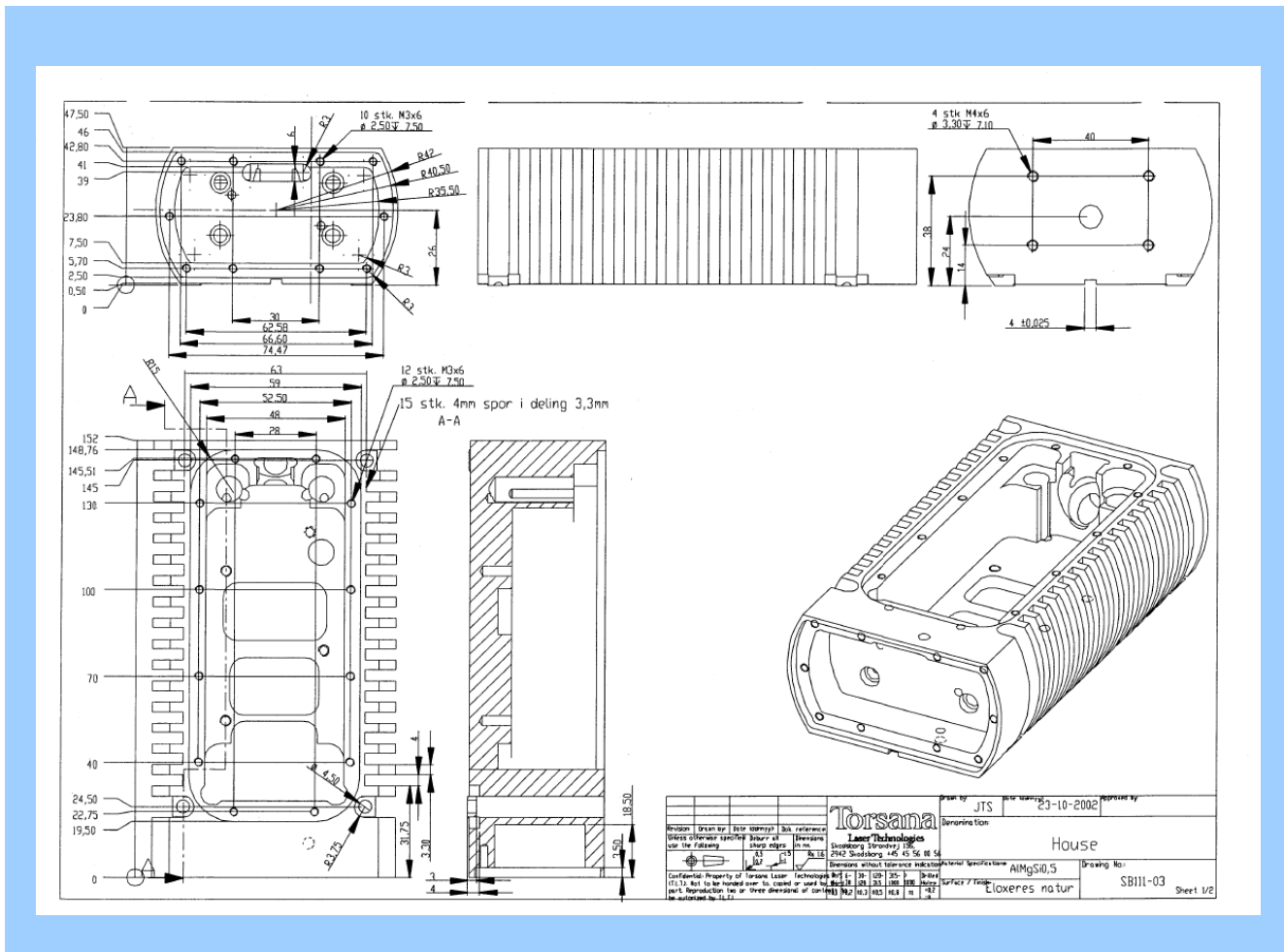
Specifications are subject to change without notice.

Torsana Laser Technologies A/S, [www.torsanalaser.com](http://www.torsanalaser.com), phone +45 45 56 00 56

# Starbright 785 S



## Dimensions of the Starbright 785 S:



Specifications are subject to change without notice.

Torsana Laser Technologies A/S, [www.torsanalaser.com](http://www.torsanalaser.com), phone +45 45 56 00 56