



IDOL Series

**Diode laser pumped
Q-switched solid-state laser
Wavelengths 1342 nm, 671 nm and 447 nm**

General description

The IDOL Series are high repetition rate solid-state diode pumped Q-switched lasers with the unique fundamental wavelength of 1342 nm. This allows the frequency conversion to powerful red and blue TEM₀₀ - mode laser radiation.

All lasers deliver < 13 ns short pulses with a superior beam quality. Due to their high pulse-to-pulse stability of and their sealed housing they are well suited for continuous 24/7 industrial use. The high repetition rate of up to 50 kHz provides a high throughput.

The IDOL 671-447 is a top selling product for Flat panel display (FPD) repair.

With a wavelength of 1342 nm, the IDOL 1342 is a perfect choice as a laser tool for silicon processing like stealth dicing or trimming of integrated circuits.

Applications

- Display repair
- Stealth dicing
- Wavelength sensitive processes
- Silicon processing
- Micro-machining

Optional

- Graphical user interface
- LabVIEW libraries
- Dual wavelength output
- Air-cooled version

Product specifications

Model	IDOL 1342	IDOL 671	IDOL 447
Wavelength	1342 nm	671 nm	447 nm
Average power	4.5 W	2 W	1.5 W
Pulse duration	12-16 ns	10-12 ns	11-13 ns
Energy per pulse	300 µJ	130 µJ	100 µJ
Repetition rate	1-50 kHz	1-30 kHz	1-30 kHz
M ²	< 1.2	< 1.2	< 1.3

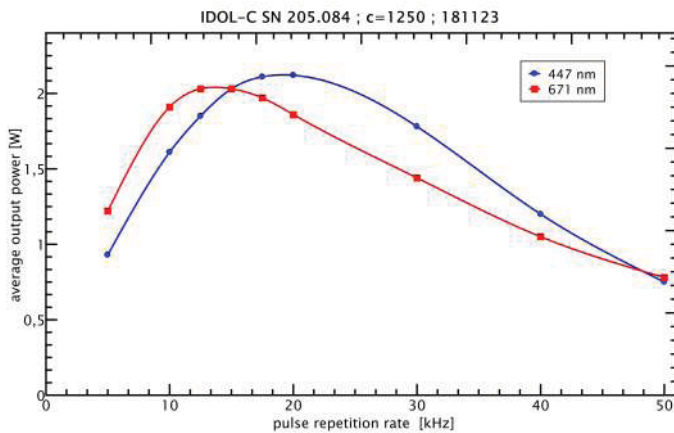
* Data at 15 kHz pulse repetition rate. Specifications are subject to change without notice due to product improvement.

Distribution in the UK & Ireland

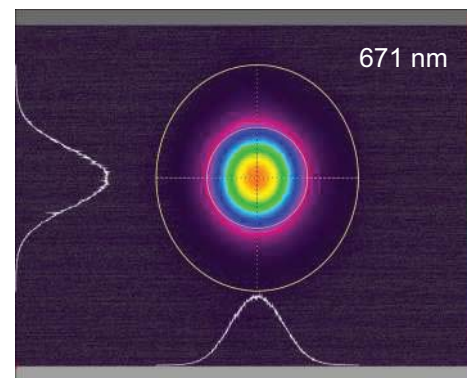
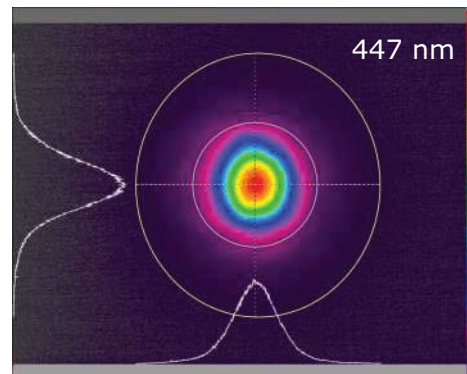


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Typical performance

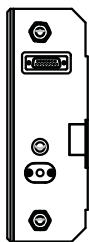


Typical beam profile

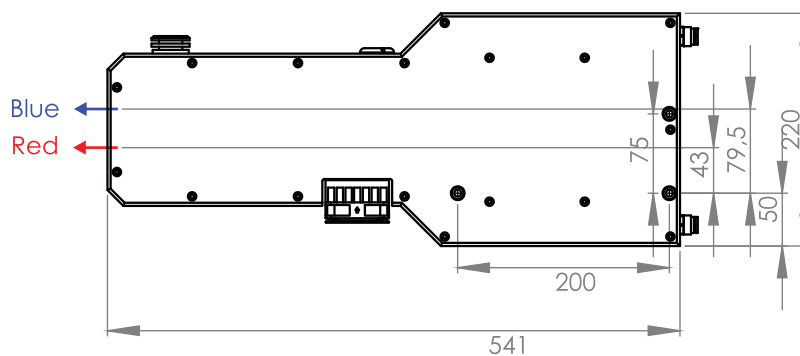


Dimensions laser head

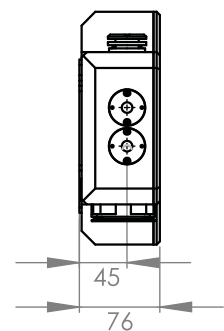
back view



top view



front view



System dimensions (L x W x H), weight

Component	Dimensions (L x W x H) [mm ³]	Weight [kg]
Laser head	541 x 220 x 76	12.2
Power supply	447 x 440 x 134	18.0
Chiller	447 x 440 x 134	12.0

Electrical characteristics

Operating voltage	85-264 VAC
Frequency	47-63 Hz
Power consumption	350 W typ

Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.
Class 4 laser (IEC 60825-1)



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**Characterisation,
Measurement &
Analysis**

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