

# IXDICE ULTRA 1342

**Diode laser pumped**  
**Q-switched solid-state laser**  
**Wavelength 1342 nm**  
**Average power 18 W**



## General description

The IXDICE Ultra 1342 is a high repetition rate all-solid-state diode pumped Q-switched laser with the unique fundamental wavelength of 1342 nm. It is the amplified high power version of the IXDICE 1342 laser. With an average output power of 18 W it is the most powerful system on the market at this special wavelength.

The laser is optimized for high pulse repetition rates in the range 30 to 200 kHz to allow high throughput in material processing applications. Due to its high pulse-to-pulse stability and the sealed housing, the IXDICE Ultra 1342 is well suited for continuous 24/7 industrial use.

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

## Applications

**Stealth dicing**  
**Wavelength sensitive processes**  
**Silicon processing**  
**Micro-machining**

## Features

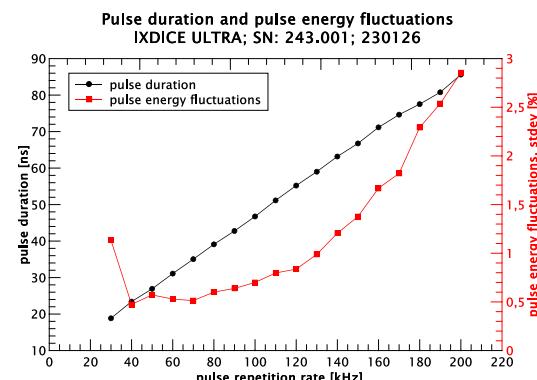
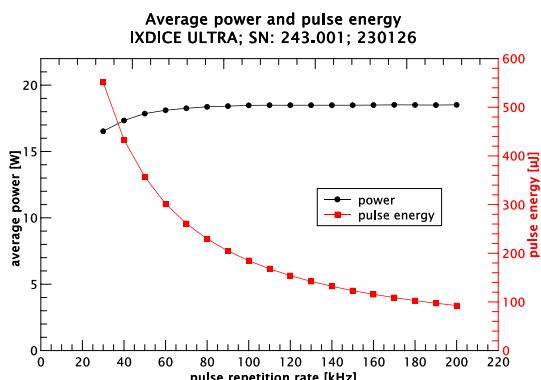
**High repetition rate, up to 200 kHz**  
**Graphical user interface**  
**LabVIEW libraries**  
**CDRH compliance**

## Product specifications

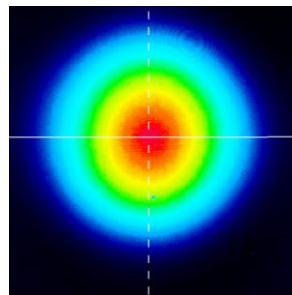
<b>Model</b>	IXDICE 1342
<b>Wavelength</b>	1342 nm
<b>Average power</b>	18 W
<b>Pulse duration</b>	typ. 40-50 ns
<b>Energy per pulse</b>	500 µJ @ 30 kHz
<b>Repetition rate</b>	30-200 kHz
<b>M²</b>	< 1.3

Data at 100 kHz pulse repetition rate, except otherwise stated.  
 Specifications are subject to change without notice due to product improvement.

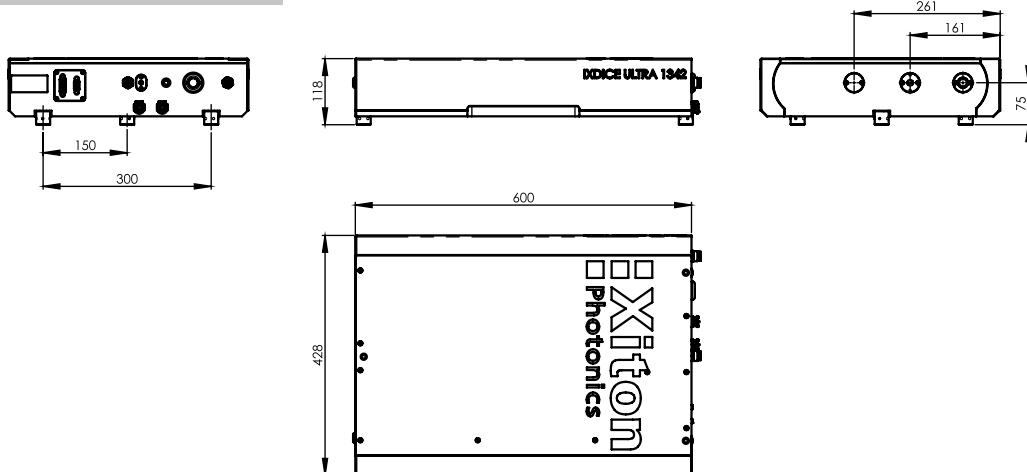
## Typical performance



## Typical beam profile



## Dimensions laser head



## System dimensions (L x W x H), weight

Laser head	600 x 428 x 118 mm <sup>3</sup>	39.0 kg
Power supply	528 x 483 x 134 mm <sup>3</sup>	18.0 kg
Chiller	611 x 482 x 134 mm <sup>3</sup>	16.6 kg

## Electrical characteristics

Operating voltage	85-264 VAC
Frequency	47-63 Hz
Power consumption	600 W typ

Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

Class 4 laser (IEC 60825-1)



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