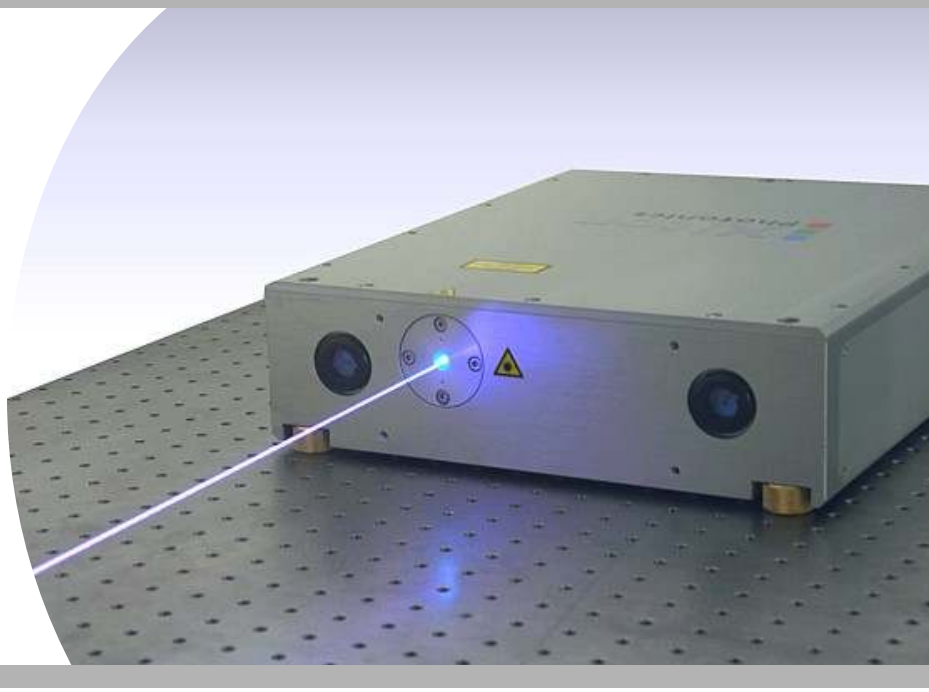
Xiton Photonics



IMPRESS 213

Real deep UV
TEM_{00} beam profile
Q-switched solid-state laser
Wavelength 213 nm

General description

The IMPRESS 213 system is a high repetition rate solid-state diode pumped Q-switched laser with an emission wavelength of 213 nm. The Gaussian TEM_{00}-mode laser beam is the well-established workhorse for fiber Bragg grating (FBG) production. Other applications are the marking of diamonds and sapphires or similar materials. Due to the very short wavelength of the laser radiation, feature sizes below 1 µm can be accomplished in direct laser writing.

Compared to Ar-Ion lasers, the IMPRESS 213 is a real energy saver and can be easily temperature-controlled by a closed cooling system. In combination with the space saving footprint, operation costs are kept at a minimum.

Applications

Fiber Bragg grating fabrication

Diamond marking

Wavelength sensitive processes

Stereo-lithography

Semi-conductor inspection

Replacement of freq. doubled Ar-Ion lasers

Photoluminescence measurements

Product specifications

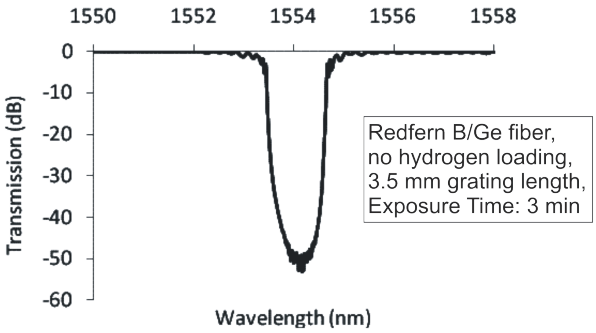
Model	IMPRESS 213
Wavelength	213 nm
Average power	150 mW
Pulse duration	6-8 ns
Energy per pulse	15 µJ
Repetition rate	1-30 kHz
M^2	< 1.6

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

Outstanding in FBG writing

Extremely fast writing

No Hydrogen loading necessary



Optional

Graphical user interface

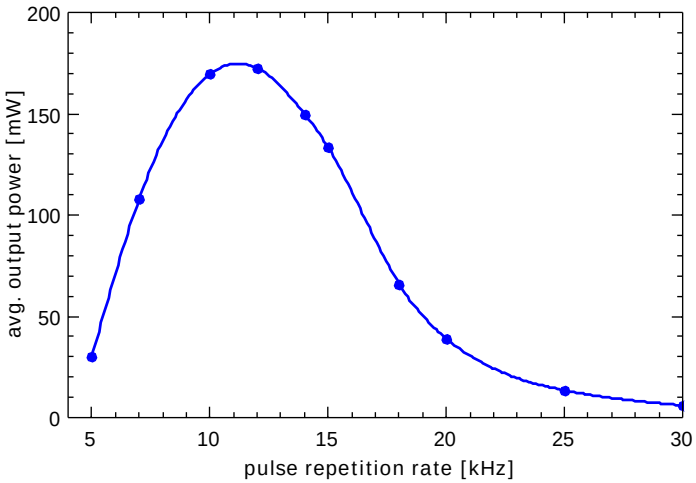
LabVIEW libraries

CDRH complience shutter

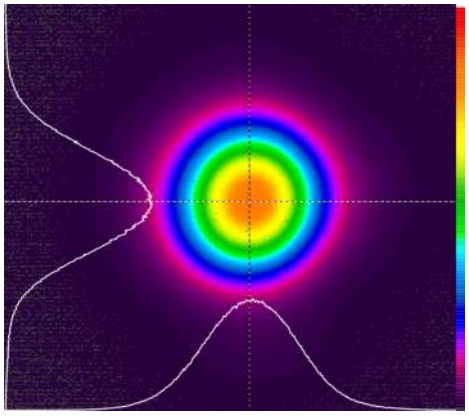
High reflective mirrors for 213 nm

IMPRESS 213

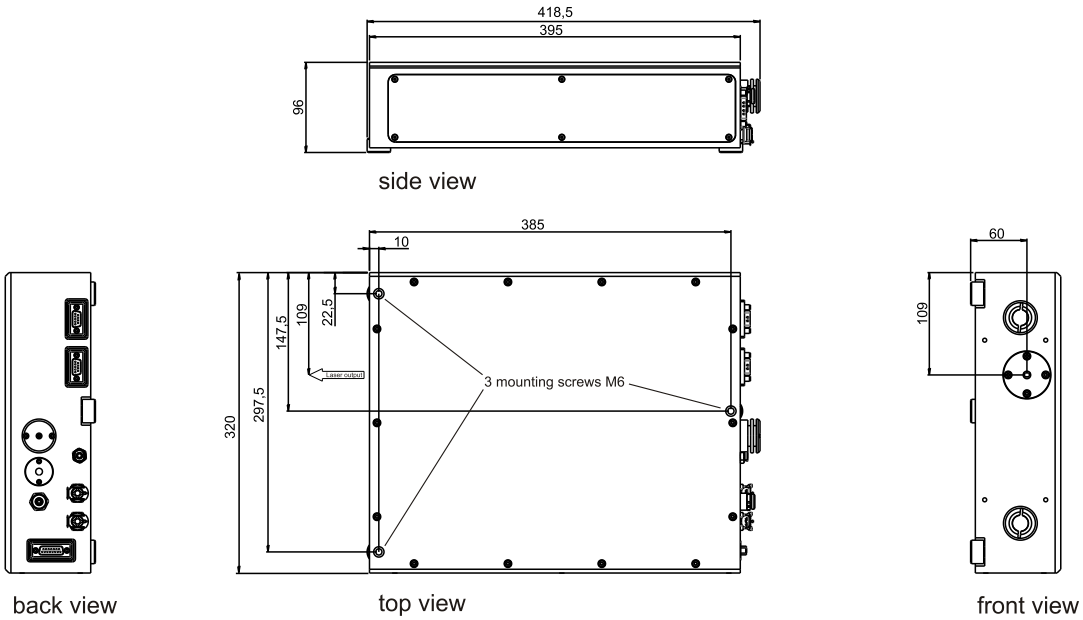
Typical performance



Typical beam profile



Dimensions laser head



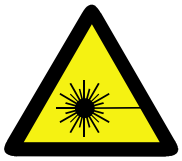
System dimensions (L x W x H), weight

Laser head	395 x 320 x 96 mm³	17.8 kg
Power supply	447 x 440 x 134 mm³	18.0 kg
Chiller	447 x 440 x 134 mm³	12.0 kg

Electrical characteristics

Operating voltage	85-264 VAC
Frequency	47-63 Hz
Power consumption	300 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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