



LDI

LDI-NIR

HIGH-PERFORMANCE LASER DIODE ILLUMINATOR

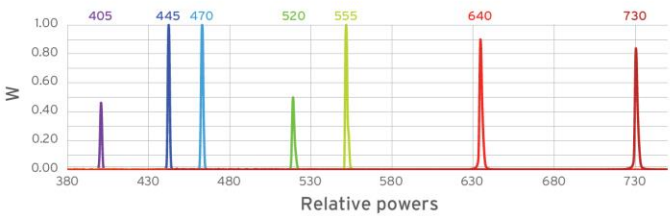
The LDI is a multiline, solid-state laser illuminator offering up to 1000mW of output power via a multimode fiber at the price of a low power LED light engine. With feedback controlled output stability and up to a 100:1 linear dynamic range, the LDI is the ideal light source for a wide range of applications including spinning disk confocal microscopy, structured illumination microscopy, FRAP, photoactivation/photoconversion, and PALM/STORM.

The LDI offers the highest price to performance ratio of any laser source available on the market today.

LASER LINES AVAILABLE

Laser Line (nm)	Power (mW)
Out of fiber (400 µm 0.22 NA)	
405	450
445	1000
470	1000
520	500
555	1000
640	900
730	850

LDI Output Spectra



FEATURES AND BENEFITS

High output power	Shorter exposures
	Faster imaging
	Faster activation times in optogenetics and photoactivation experiments
	Faster bleaching times in FRAP experiments
Feedback controlled optical stability	Quantitative imaging, ideally suited for ratiometric imaging
	More repeatable optogenetics experiments
Up to 100:1 linear dynamic range	Ability to turn power down when needed and maintain stability and quantitative imaging
Up to 7 lines	Covers most of the standard fluorescence probes
No user alignment	Easy to use and maintain

SPECIFICATIONS

Source Type	Laser Diodes						
Lifetime	20,000 hrs - 2 year warranty						
Wavelength (nm)	405	445	470	520	555	640	730
Width (nm)	0.6	2-3	2-3	4-6	0.6	0.8-1.5	2-3
CWL Range	398-406	440-446	465-470	520-522	553-555	632-643	723-737
Stability (rms)*	<2%	<2%	<2%	<2%	<2%	<2%	<2%
Optical Power Min (mW)	500	1000	1000	500	1000	900	850
Rise*	<10 µs	<10 µs	<10 µs	<10 µs	<1 ms	<10 µs	<10 µs
Max On/Off Frequency (Hz)	>1000	>1000	>1000	>1000	200	>1000	>1000
Output Options	400 µm - 1.5 mm optical fiber**						
Control Options	TTL (>2.3 V) Analog (0-5 V) USB-DSP (virtual COM port) - SDK available upon request						
Safety	Interlocked housing Safety interlock Key interlock						
Dimensions	12.5" x 9.2" x 5.75"						
Weight	~9 lbs						
Operating Temperature	10-32 °C						
Storage Temperature	-18-50 °C						
Humidity	<80% non-condensing						
Voltage	90-220 V AC, 50-60 Hz						
Fuse	None						

*for power settings >20%, to achieve 50% of maximum power

**Smaller fiber available with loss of power

This product is subject to FCC rules. Delivery is contingent upon demonstrated compliance with the applicable equipment authorization and technical requirements.

Applications

Spinning Disk Confocal Microscopy with Crest X-Light V2

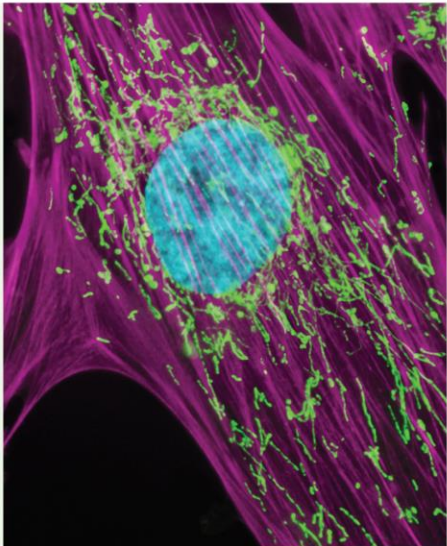
Super Resolution SIM Imaging with Crest VCS or Live SR

PALM/STORM

Optogenetics with DLPs or Multiport Illuminator

Photoactivation/Photoconversion/FRAP with RAPP GEO

FRAP with SLM or Multiport Illuminator



DANGER - LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT