Quantel

NEW

Q-smart 450

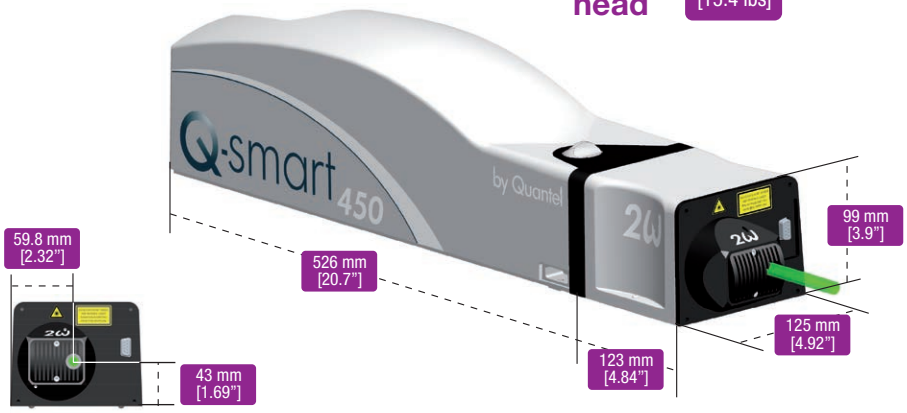
Compact Q-Switched Nd:YAG laser

- 450 mJ at 1064 nm, 10 Hz
- Light, compact and quick connect cables
- Easy wavelength change
- Intelligent autotuning of harmonics
- Intuitive touch screen interface
- 100 million shots lamp lifetime guaranteed
- 1064, 532, 355, 266, 213 nm available
- Ethernet control

Q-touch
Intuitive touch screen interface

Power supply 27 kg [59.5 lbs]

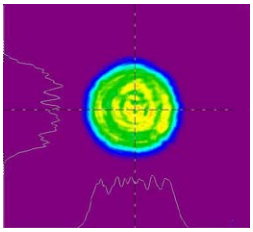
Laser head 7 kg [15.4 lbs]



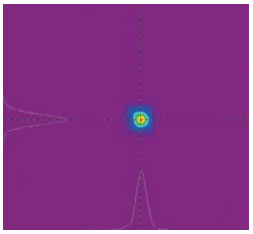
- Universal voltage
- Air-cooled

Q-smart

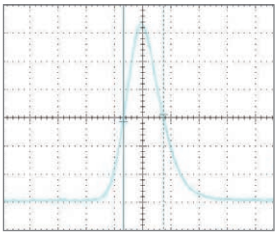
Near field @1064 nm



Far field @1064 nm



Temporal profile @1064 nm



Quantel laser

www.quantel-laser.com

Q-smart 450 Specifications

REPETITION RATE (Hz)		10	20	
PULSED ENERGY (mJ)	1064 nm	450	400	Measured with a calibrated wattmeter [1]Regular/High energy UV option
	532 nm	220	200	
	355 nm	80/130[1]	75/120[1]	
	266 nm	60	50	
	213 nm	10	8	
ENERGY STABILITY (%)	1064 nm	± 2 (0.6)		Peak to peak, 100 % of the shots (RMS)
	532 nm	± 4 (1.3)		
	355 nm	± 6 (2)		
	266 nm	± 8 (2.6)		
	213 nm	± 12 (4)		
POWER DRIFT (%)	1064 nm	± 3		Over 8 hours, without readjustment of phase-matching, 18°C<T<28°C
	532 nm	± 5		
	355 nm	± 5		
	266 nm	±10		
	213 nm	±14		
PULSE DURATION (ns)	1064 nm	≤ 6		FWHM, fast photodiode and 1 GHz scope
	532 nm	≤ 5		
	355 nm	≤ 5		
	266 nm	≤ 5		
	213 nm	≤ 5		
POINTING STABILITY (µrad)	All wavelengths	< 40		Measured by Spiricon LBA FWB, RMS, on 200 pulses at the focal plane of a 2 m focus lens
JITTER (ns)	1064 nm	± 0.5		+/-0.5 ns with respect to Q-switch trigger IN, measured at half width of 500 accumulated shots for 99 % of shots
FOCUSABILITY (Times Diffraction Limit)	1064 nm	≤ 2		At $1/e^2$ of the peak, by Spiricon LBA FWB
LINEWIDTH (cm^{-1})	1064 nm	≤ 0.7		FWHM measured by a grating spectrometer with a 0.045 cm^{-1} resolution
DIVERGENCE (mrad)	1064 nm	< 0.5		Full angle, at $1/e^2$ of the peak, 85 % of total energy
POLARIZATION RATIO (%)	1064 nm	> 90	> 80	
BEAM DIAMETER (mm)	1064 nm	≈ 6.5		At the output of the laser
SPATIAL PROFILE (fit to gaussian)				Least square fit to Gaussian (perfect fit = 1)
NEAR FIELD[2]	1064 nm	> 0.70	> 0.70	[2]At 1 m from laser output
FAR FIELD[3]	1064 nm	> 0.95	> 0.9	[3]At focal plane of a 2 m focus lens.

POLARIZATION	
1064 nm	Horizontal
532 nm	Vertical
355 nm	Horizontal
266 nm	Horizontal
213 nm	Vertical
TEMPERATURE RANGE	
OPERATING	18/28°C
STORAGE[4]	-10/50°C
FLASHLAMPS LIFETIME	>100 million shots
SERVICE REQUIREMENTS	100-240 VAC 50-60 Hz Single phase
CABLE LENGTH	3 m (10 feet)

[4]System drained and flushed with EGW

For more information, please visit
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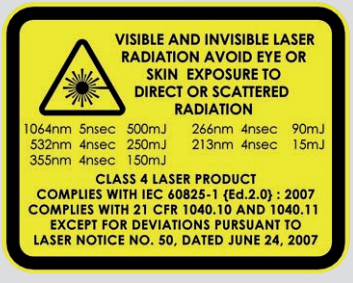

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