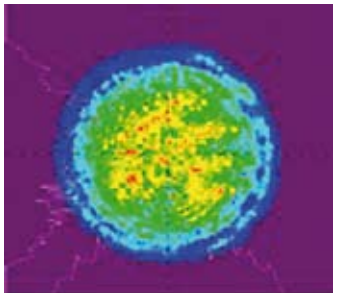
Pizzicato

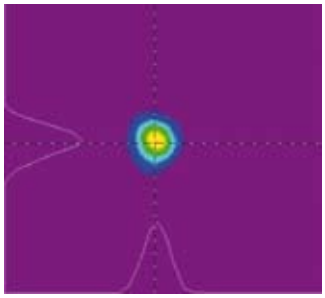
Modular all solid-state mode-locked picosecond Nd:YAG laser, high stability, high performances

Prepulse TTL signal for synchronization with streak camera
High energy - TEM_{00} oscillator
Beam diameter: 6 or 9 mm - Several pulse durations
Harmonic generation with motorized phase matching

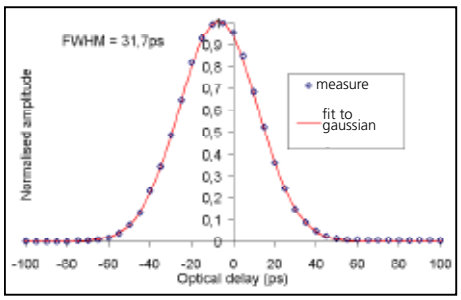
Beam profile in near field
@1064nm -10Hz-100mJ



Beam profile in far field
@1064nm -10Hz-100mJ



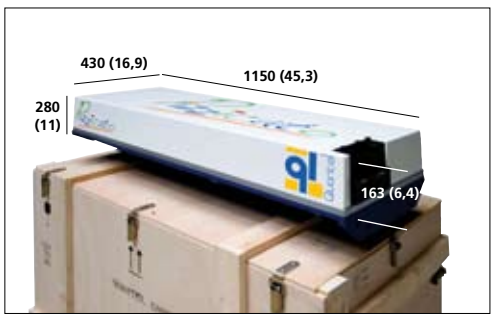
Autocorrelation trace @1064nm



Optical laser head (H x L x W)	50kg 280 x 1150 x 430	110.23lb (11 x 45.3 x 16.9)
Power supply and cooling group cabinet (H x L x W)	140kg 890 x 800 x 550	308.65lb (35 x 31.5 x 21.6)
Remote control (foot print)	195 x 100	(7.68 x 3.94)

All dimensions are in mm (inch)

External synchronization flexibility:
flashlamp and synchronization control through TTL signals, RS232 or remote control box



Pizzicato

SPECIFICATIONS

Model		Pizzicato		Pizzicato B		
Repetition rate (Hz)		10	20	10	20	
Energy (mJ)	1064nm 532nm 355nm 266nm	50 25 10 5	45 20 8 4	100 50 17 10	60 30 10 4	Measured with a calibrated wattmeter
Energy stability (%)	1064nm 532nm 355nm 266nm	<3 <4 <6 <8				RMS on 100 shots
Power contrast ratio (%)	1064nm	> 400:1				Ratio of pulse peak power over prepulse peak power
Power drift (%)	1064nm 532nm 355nm 266nm	±4 ±5 ±6 ±10				Over 8 hours for $\Delta T \leq \pm 3°C$ without readjustment of phase-matching
Pulse duration (ps)	1064nm	35*				FWHM, measured with an autocorrelator *Available on request: 20, 50 and 70ps
Delay between output electrical signal and optical pulse (ns)		-150 to +450				Adjustable by step of 0,25ns
Jitter of the optical pulse with respect to external synchro trigger (ps)		<200				RMS
Delay relative to flashlamp trigger (µs)		~100				
Jitter relative to flashlamp trigger (µs)		2,5				RMS
Pointing stability (µrad)	1064nm 532nm 355nm 266nm	<30 <30 <30 <30				Measured by SPIRICON LBA-PC, RMS, on 200 pulses at the focal plane of 1m focus lens
Full divergence (mrad)		<0,5				Full angle at $1/e^2$ of the peak, 85% of total energy
Polarization ratio (%)	1064nm	>95				Horizontal polarization @ 1064, 355 and 266nm, vertical polarization @ 532nm
Beam diameter (mm)	1064nm	6		9		
Spatial profile (fit to gaussian) Near field Far field	 1064nm 1064nm	 >0,7 >0,9				Least square fit to Gaussian (perfect fit = 1) At 1m from the laser output At focal plane of a 2m focus lens

Electrical requirements: 100-220V, 50/60Hz, 32 A, single phase with ground - Cables length: 3m (10feet)
Water requirements: up to 12,5l/mn, 1.5-3 bars pressure, 5-25°C

Quantel

2 bis avenue du Pacifique - Z.A. de Courtaboeuf
BP 23 - 91941 Les Ulis Cedex - France
Ph: +33 (0)1 69 29 17 00 - Fax: +33 (0)1 69 29 17 29
601 Haggerty Lane - Bozeman - MT 59715-2001 - USA
Ph: +1 406 586 0131 - Fax: +1 406 586 2924
E.mail: quantel@quantel.fr - www.quantel-laser.com

CE

RoHS