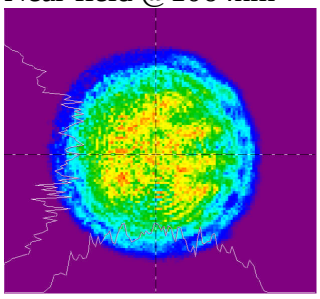
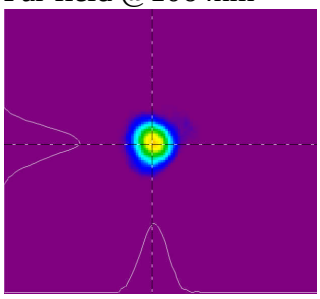
Modular all solid-state mode-locked picosecond Nd :YAG laser, high stability, high performances

Prepulse TTL Signal for synchronisation with streak camera- High energy stability - TEM_{00} Oscillator - Beam diameter: 6 or 9 mm - Several pulse durations -

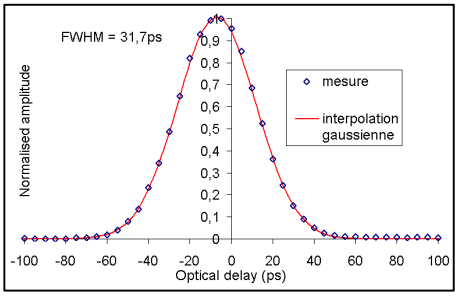
Near field @1064nm



Far field @1064nm

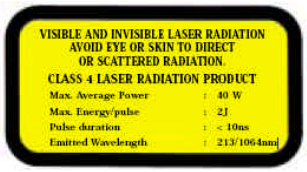


Autocorrelation trace @1064 nm



Optical laser head	50kg	(110.23lb)
(H x L x W)	280 x 1150 x 430	(11 x 45.3 x 16.9)
Power supply and cooling group cabinet	140kg	(308.65lb)
(H x L x W)	890 x 800 x 550	(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)



Pizzicato

Preliminary Specifications

Model	Pizzicato		Pizzicato B		
Repetition rate (Hz)	10	20	10	20	
Energy per pulse(mJ)					Measured with a calibrated wattmeter
1064nm	50	45	100	60	
532nm	25	20	50	30	
355nm	10	8	17	10	
266nm	5	4	10	4	
Energy Stability (%)					100% of the shots RMS
1064nm	<3				
532nm	<4				
355nm	<6				
266nm	<8				
Power Contrast ratio (%) 1064nm	>200:1				Ratio of pulse peak power over nanosecond prepulse peak power
Power drift (%)					Over 8 hours for ? T°=±2°c, without readjustment of phase-matching,
1064 mm	±4				
532 mm	±5				
355 mm	±6				
266 mm	±10				
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)	250				RMS
Delay relative to flashlamp trigger (µs)	~100				
Jitter relative to flashlamp trigger (µs)	2.5				RMS
Pointing stability (µrad)					Measured by SPIRICON LBA-PC, RMS, on 200 pulses at the focal plane of a 1m focus lens
1064nm	<30				
532nm	<30				
355nm	<30				
266nm	<30				
Full divergence (mrad)	<0,5				Full angle at $1/e^2$ of the peak, for the nominal bean diameter
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 1064nm	>0.7				At 1m from the laser output
Far field 1064nm	>0.9				At focal plane of a 2m focus lens Least square fit to Gaussian (perfect fit =1)

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

Quantel
2 bis avenue du Pacifique - Z.A. de Courtaboeuf - BP 23 - 91941 Les Ulis Cedex – France. Tel : +33(0)1 69 29 17 00 - Fax : +33(0)1 69 29 17 29
601 Haggerty Lane - Bozeman - MT 59715-2001 - USA - Tel: 408 586 0131 - Fax: 408 586 2924
E.mail : quantel@quantel.fr - www.quantel-laser.com