

Quasi-CW Ti:Sapphire Laser Model CF231



- KHz pulse repetition rate
- Narrow linewidth
- Wide spectral range
- Built-in SHG

Applications

- Medicine
- Photochemistry and Photobiology
- Laser Spectroscopy
- Fibre Optics
- Optical Communication

Features

- ◆ High quality output is generated in a computer-optimised aberration-free cavity.
- ◆ The output coupler is adapted to variation of the Ti:Sapphire gain. A single set of cavity optics provides the wide 695-960nm tuning range.
- ◆ The built-in SHG unit with cylindrical optics and an efficient nonlinear crystal extend the tunability range from 350 to 475 nm.

Options

- CF231 Ti:Sapphire laser can be supplied together with LF2210 Quasi-CW Nd:YAG pump laser.
- Wide band harmonic separators provide high-contrast spectral separation of fundamental from the second harmonic.
- Wavelength PC-control is available on request.

Specifications

OUTPUT PARAMETERS

Active Medium:	Ti:Sapphire
Tuning Range ¹⁾	
at fundamental:	695-960nm
at second harmonic:	350-475nm
Pump radiation conversion efficiency at peak of tuning curve	
at fundamental:	>8%
at second harmonic:	>1.5%
Linewidth ²⁾ (for all harmonics):	<30 pm
Beam Diameter (at output coupler):	0.9mm
Beam Divergence:	< 1.0 mrad
M2:	1.2
Pulse Duration ³⁾ :	15-20ns

PUMP PARAMETERS

Wavelength:	532nm
Pulse Energy:	0.3-4.0 mJ
Pulse Duration:	90-150 ns
Pulse Repetition Rate:	1000-15000 Hz
Beam Diameter (max):	5mm

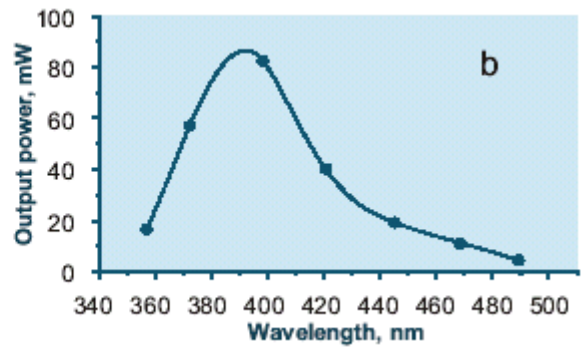
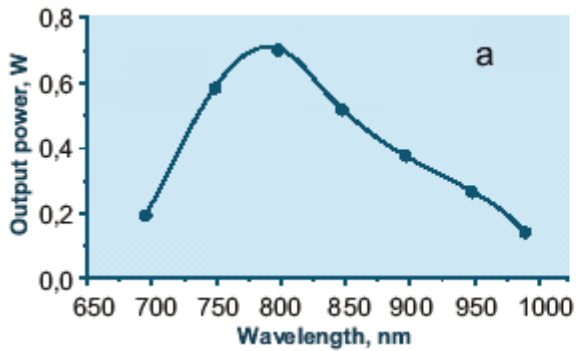
Overall Size: 432x180x80mm, Weight: 10kg

School Drive ~ Ovenstone ~ Fife ~ KY10 2RR ~ United Kingdom

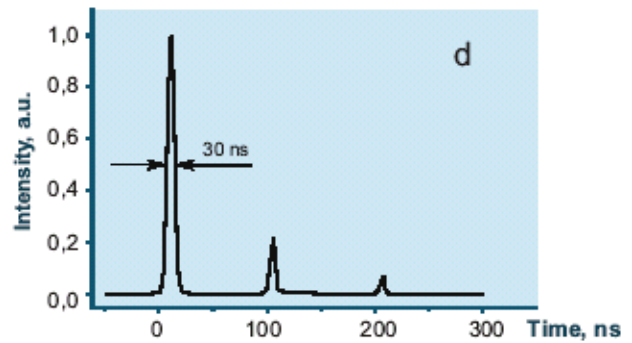
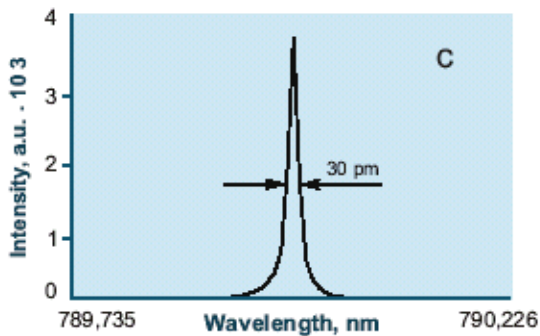
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Notes: Typical CF231 output parameters with 8.0W pumping power at 532nm for 4kHz pulse repetition rate:
 1) tuning curve for fundamental (a) and second harmonic (b) output;



2) lineshape (c) and 3) temporal profile (d) at the peak of tuning curve for CF231 output. The second and third spikes in the temporal profile occur at output power of more than 0.4W and 0.8W respectively.



Dimensional Drawing

