

Amplifiers



FREGAT Cr:Forsterite Regenerative

- Pulse duration: <120 fs
- Wavelength: 1240 nm
- Single-box design
- >1TW peak power systems



Cr:Forsterite regenerative amplifier FREGAT-200

Product overview

The FREGAT family of Cr:Forsterite femtosecond amplifiers are based on unique active medium and radiate fs pulses around 1230-1240 nm. The system includes pulse stretcher, regenerative amplifier, synchronization and delay generator, pulse compressor, seed oscillator with fiber pump laser and amplifier pump laser.

FREGAT-1TW system offer TW-level of peak power at this unique wavelength.

FREGAT technical specifications

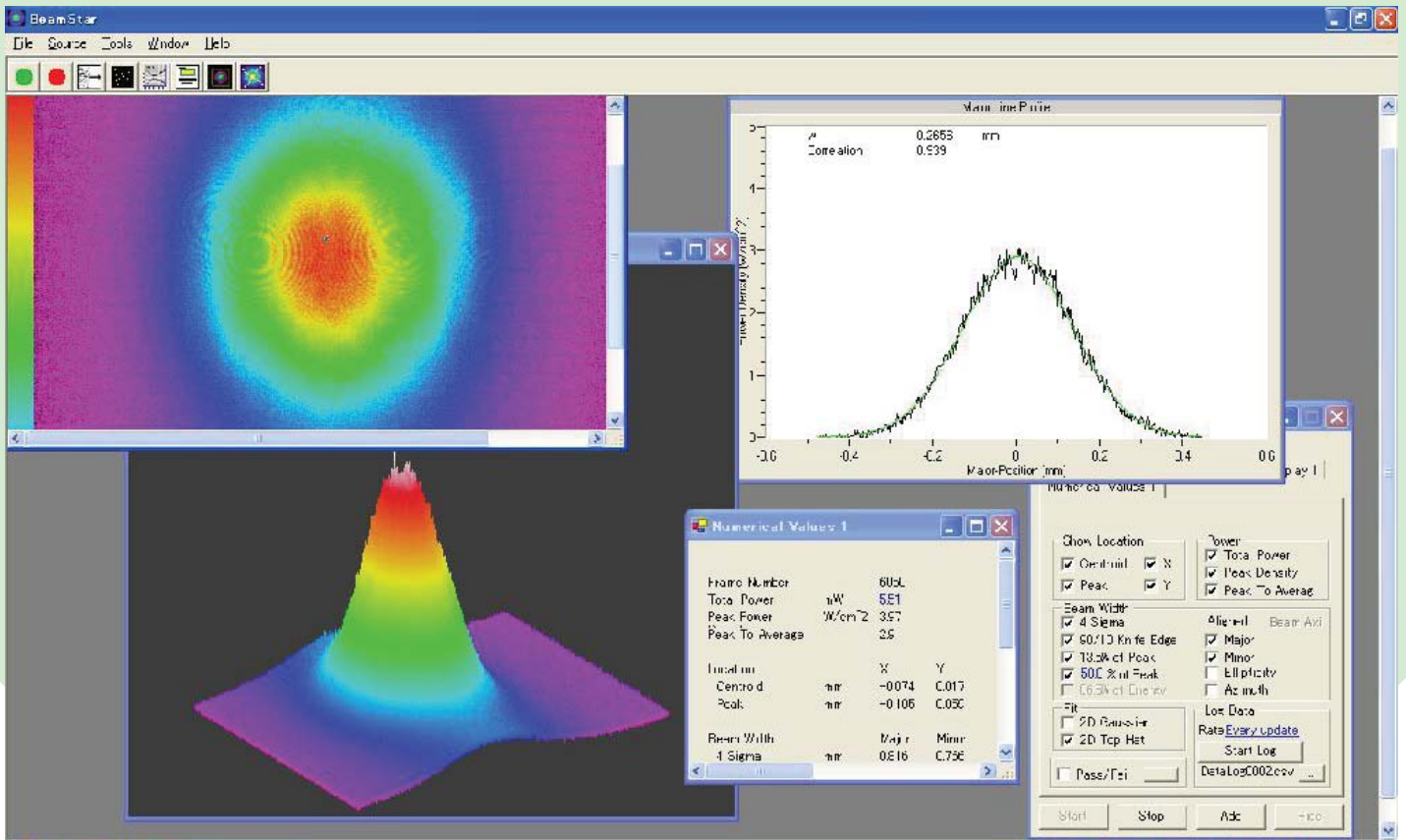
	FREGAT-200	FREGAT-600	FREGAT-1000
Pulse duration, fs	<120	<120	<120
Wavelength, nm	1240	1240	1240
Energy, mJ	>0.2*	>0.6*	>1.0*
Pump energy (1064 nm, <200 ns), mJ	10	35	50
Repetition rate, Hz	1000	10, 50, 100	10, 50

* - depends on the pump laser

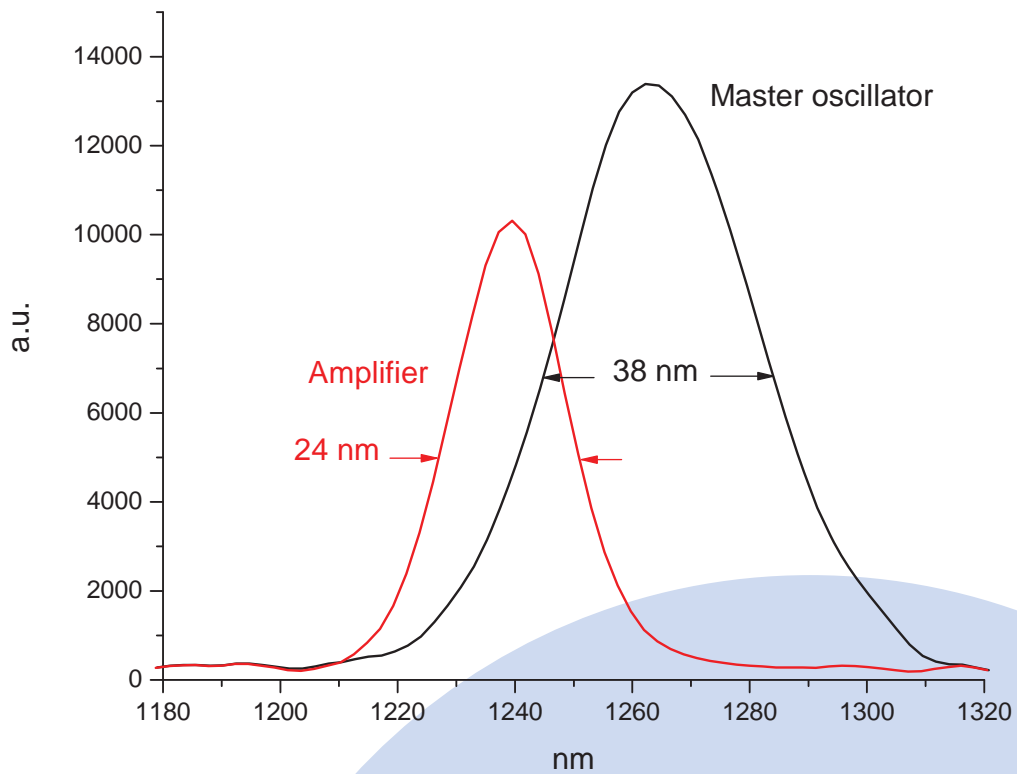
	TW Cr:F
Wavelength, nm	1240
Pulse duration (FWHM), fs	<85
Pulse power, TW	1-2
Output stability, RMS	<2%
Repetition rate, Hz	10
Beam divergence, mrad	<2
Spatial Mode	TEM ₀₀
Polarization, linear	horizontal
Contrast ratio	>1000:1



FREGAT-1TW



Output beam profile. CCD camera 640x480



Spectra of FREGAT-200 system