

TISSA GS

Femtosecond Ti: Sapphire Oscillators
Models 60, 100, S60, S100, GS60 and GS100

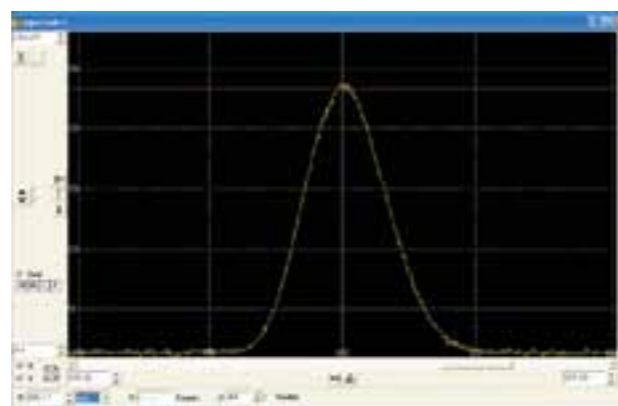


TISSA GS is the most integrated among all models available for TISSA series of femtosecond Ti: sapphire oscillators. Together with builtin 4 W diode pumped solid state (DPSS) pump laser, GS60 and GS 100 contain installed inside second harmonic generator (frequency doubler) and built-in computer controlled spectrometer for on-line control of the oscillator output spectrum.

S60 and S100 versions doesn't contain second harmonic generator. Versions 60 and 100 are without second harmonic generator and spectrometer.

Specifications

- Temporal pulse width
 < 60 fs for models 60, S60, GS60
 < 100 fs for models 100, S100, GS100
- Pulse repetition rate: 85 M z
- Wavelength tuning: 750 nm - 850 nm
- Output power at 800 nm: > 500 mW
- Output polarization: Horizontal
- Optional wavelength tuning: 800 nm - 900 nm
- Output beam diameter: 2-3 mm
- Divergence: < 1 mrad
- Spatial mode: near TEM₀₀
- Stability: < 1% rms
- Second harmonic tuning: 375 nm - 425 nm
- Output power at 400 nm: > 100 mW
- Second harmonic polarization: Vertical
- Optional second harmonic tuning: 400 nm - 450 nm
- Dimensions: 990 mm x 460 mm x 200 mm



On-line control of the oscillator output spectrum is enough to make sure that femtosecond pulses of <60 fs pulse width are generated over a specified spectral range.

TISSA-combi 50-20

Femtosecond Ti: Sapphire Oscillator
Model 50/20



Model 50/20 is an integrated oscillator with a built-in 4 W diode pumped solid state pump laser. It is a good choice among seed oscillators for amplification of shortest (< 20 fs) pulses, and it can be used in powerful systems like MPA-XL as well. It contains extra cavity prism compressor (OUT 1) for pulse shortening, but the second output (OUT 2) gives uncompressed (< 50 fs) and wavelength tunable pulses for a multipurpose usage.

Specifications

- Pulse repetition rate: 85 MHz
- Pulse width: < 20 fs at OUT 1 and < 50 fs at OUT 2
- Tuning range: 780 - 820 nm at OUT 1 and 750 - 850 nm at OUT 2
- Output power at 800 nm: > 400 mW
- Polarization: Horizontal
- Output beam diameter: 2-3 mm
- Divergence: < 1 mrad
- Spatial mode: near TEM₀₀
- Stability: < 1% rms
- Femtosecond autocorrelator (option)

Specifications

- 990mm x 460 mm x 200 mm



Interferometric autocorrelation function of 16 fs pulses obtained from OUT 1 of TISSA-combi 50/20 oscillator