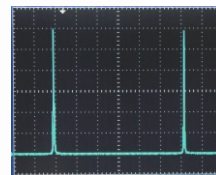
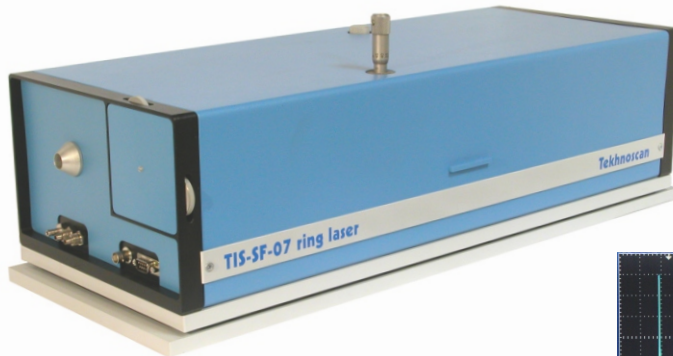
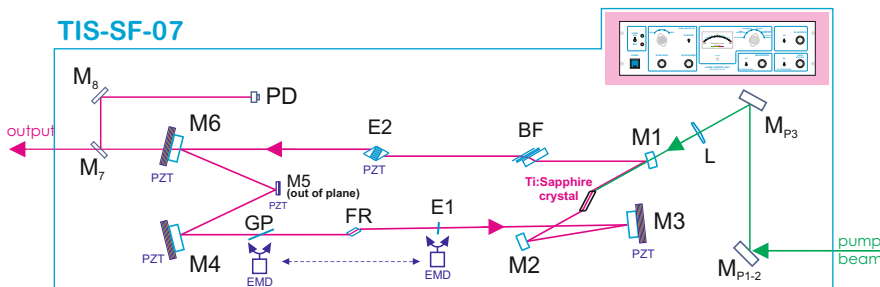


# CW single-frequency ring Ti:Sapphire laser model TIS-SF-07



CW single-frequency ring Ti:Sapphire laser, model "TIS-SF-07", ensures **high output power** (up to 2 W pumped with 10 W @ 532 nm) in a **narrow radiation line** (line width < 5 MHz rms). **Highly stable laser resonator** with volumetric solid base featuring three invar rods provides **long-term stability** of laser parameters. **Ultra-accurate controls of the pump beam position** implemented in TIS-SF-07 model are accessible from the input flange of the laser, the user can operate them without lifting the case cover.



The optical scheme of the laser is configured in such a way that it provides for **both ring and linear cavity operation** with only a minimal re-alignment of the mirrors. **Thoroughly-thought alignment system** of TIS-SF-07 significantly speeds up and simplifies laser alignment to max out parameters after a change of the mirror set to switch to a different spectral range. Available wavelength tuning range of Ti:Sapphire laser is covered in TIS-SF-07 model by several optical sets for the following ranges: **695-780 nm, 750-850 nm, 850-950 nm and 950-1050 nm**.

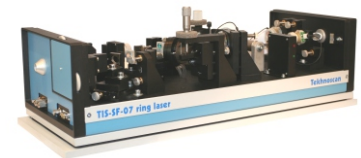
Choose the necessary parameters and options of TIS-SF-07 and enjoy this modern and powerful laser system by Tekhnoscan!

⊙ **Highly stable resonator cavity** with volumetric solid base built on three invar rods and additional vibration sink base of the laser head

⊙ **Quick tuning of the laser** to a given wavelength and simple mirror change procedure when switching spectral ranges

⊙ **Precision adjustment** of optical elements and exceptionally accurate alignment of the pump beam position

⊙ Possibility of **direct pumping** (without any additional mirrors and/or spacers) by popular DPSS lasers, the centre of the input aperture of TIS-SF-07 laser matching that of a DPSS laser



⊙ Possibility of laser operation in **both ring and linear resonator** configurations

⊙ **Simplified laser alignment** in the ring configuration because of preliminary optimisation of the elements in the linear cavity



⊙ **Ergonomical and reliable electronic control unit** featuring a built-in generator for smooth scanning of the laser frequency

⊙ Possibility of **subsequent efficient output frequency stabilisation** with the aid of a special small-mirror/ultra-fast-PZT assembly included into the cavity design

# TIS-SF-07

## CW single-frequency ring Ti:Sapphire laser

Specifications:

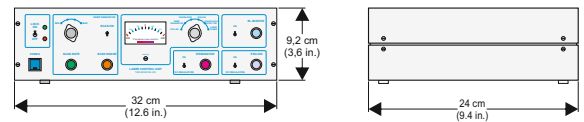
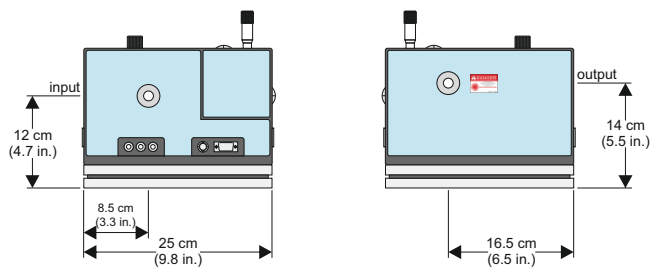
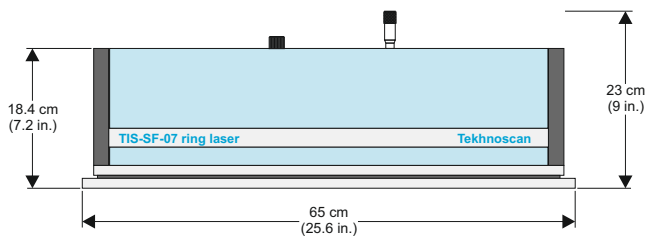
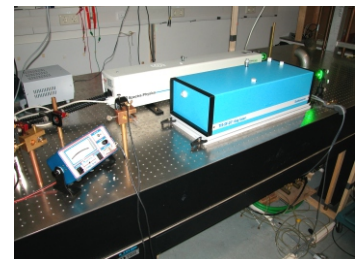
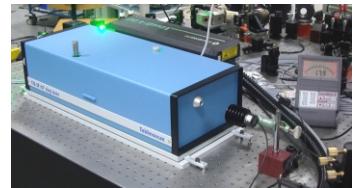
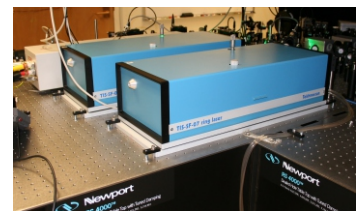
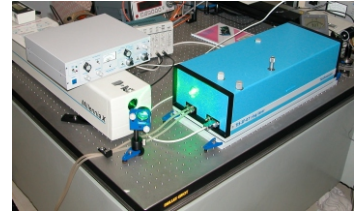
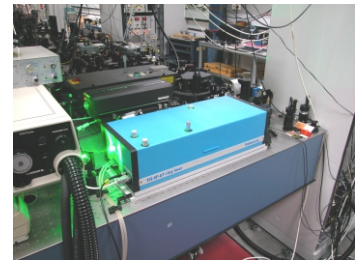
Wavelength range	750-850 nm 695-770, 850-950, 950-1050 nm <sup>1</sup>
Output <sup>2</sup>	> 2 W at 12 W pump > 1,6 W at 10 W pump > 1,1 W at 8 W pump > 450 mW at 5 W pump
Linewidth	< 4 MHz/sec
Smooth scanning	> 4,5 GHz
Spatial mode	TEM <sub>00</sub>
Polarization	horizontal

<sup>1</sup> With high-power pump

<sup>2</sup> At the peak of the tuning curve

Options:

1. Up to 45 GHz smooth scanning
2. 350-525 nm wavelength range with Resonant Frequency Doubler FD-SF-07
3. Upgradable to Frequency-stabilised Laser with linewidth of < 5 kHz/sec (TIS-SF-777)
4. + Dye laser (linewidth < 10MHz or < 100 kHz) in the same Laser head



Information and specifications contained herein are deemed to be reliable and accurate as of the publication date. Tekhnoscan reserves the right to change these specifications at any time without notice.



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