

DYE-SF-077

CW Frequency-Stabilised Dye Laser



1

NARROWEST LINEWIDTH

3

AUTOMATED WAVELENGTH SETTING OPTION

2

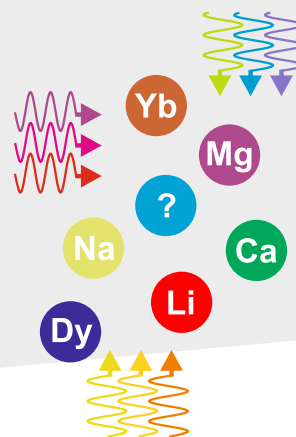
ULTRA-STABLE

4

FREQUENCY DOUBLER AVAILABLE

DYE-SF-077 laser is the first representative of the new contemporary generation of dye lasers that offer to the user virtually the same level of convenience and simplicity of operation as with a solid-state tuneable laser. Similarity of this laser to a solid-state one is emphasized by the fact that DYE-SF-077 laser can be optionally shipped in the combined configuration which allows its operation as a Ti:Sapphire laser (TIS-SF-777). Laser model DYE-SF-077 features exceptionally narrow generation line width, which amounts to less than 100 kHz/sec. DYE-SF-077 laser sets new standard for generation line width of commercial CW single-frequency dye lasers.

Upon customer's order, DYE-SF-077 laser may be equipped with a USB compatible interface for a desktop or a laptop connection used to remotely scan the generation line of the laser and to perform multi-channel data acquisition. DYE-SF-077 laser also may be shipped together with an atom cell and a system for reduction of long-term generation line drift. Besides, laser DYE-SF-077 in combination with highly-efficient resonant frequency doubler FD-SF-07 delivers several hundreds milliwatts of narrow-band UV radiation within the 285–350-nm range.

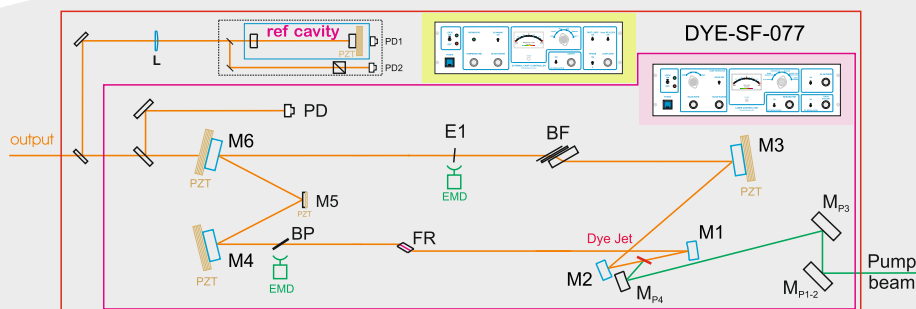


Features

- ✓ Rigid laser base-plate with three invar rods in a volumetric configuration
- ✓ Absolute frequency stabilisation to atomic/molecular reference line available
- ✓ Automated absolute high-precision wavelength setting option
- ✓ Single solid etalon
- ✓ Auto-Relock function

Applications

- ✓ Cooling, BEC and manipulating atoms
- ✓ High-resolution spectroscopy
- ✓ Tasks requiring low amplitude noise
- ✓ Doubling, Raman & parametric conversion
- ✓ Isotope separation
- ✓ Nanoscience research



Laser Specifications

DYE-SF-07 DYE-SF-077

Line width, over 1 s rms	< 10 MHz	< 100 kHz
Line width, over 0,1 s rms	< 1 MHz	< 10 kHz
Output, W (6 W pump)	> 1	
Wavelength range, nm	550-700	
Smooth scanning, GHz	6-35	

Contacts

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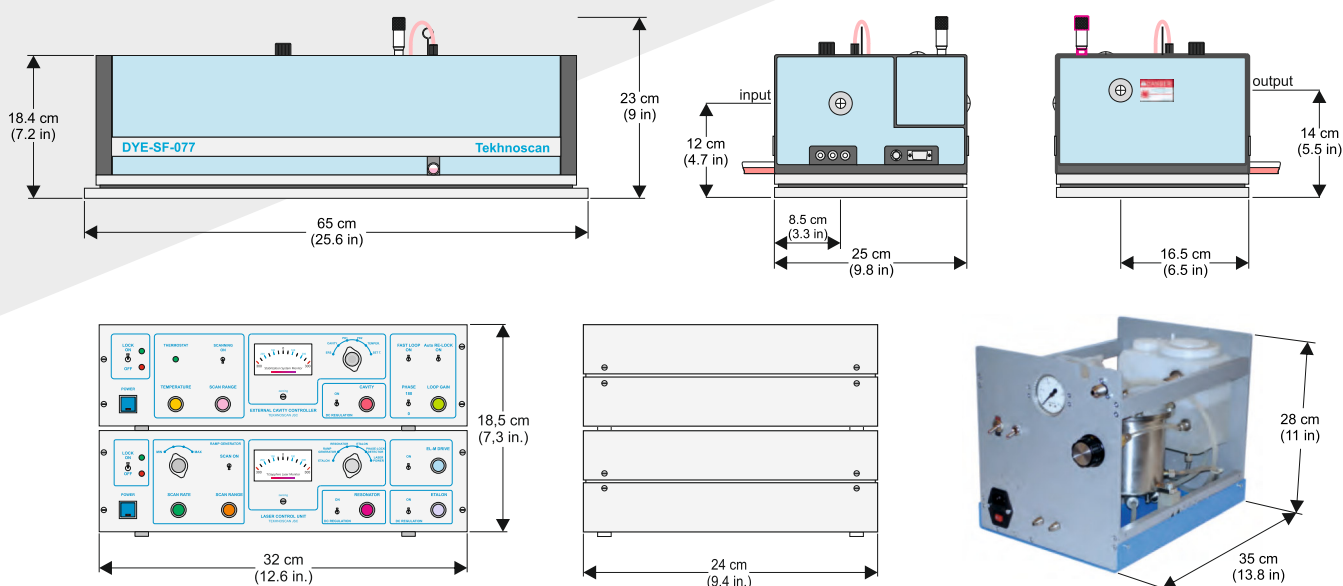
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