Integrated Nd:YAG-Ti saphire Laser Systems LS-2134-LT40 AND LS-2145-LT50



LS-2134-LT40 and LS-2145-LT50 are fully integrated laser systems that combine Q-switched pump laser and Ti sapphire converter of Nd:YAG second harmonic radiation (532 nm) into tunable near IR, UV and visible spectral band. They are designed for scientific research in photochemistry, biology, medicine, for PAT and LIBS applications. The lasers consist of laser head, power supply (PS), cooling system (CS) with water-to-air heat exchanger, controller (CU) and remote control (RC).

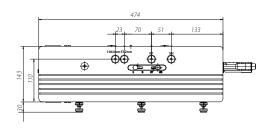
Features:

- Possibility of independent operation of pump laser at 1064 and 532 nm as well as tunable lasing
- Hands free operation and automatically switching output wavelengths
- Built-in monitors of Nd:YAG FF and SH output energy
- Built-in high efficiency Al₂O₃:Ti³⁺ second harmonic unit
- Narrow output linewidth (option)
- Laser can be fit with external third and forth harmonic units of Nd:YAG and Ti:Sa (option), which increases the total tuning range to the UV spectral range up to 210 nm
- PC control of pump laser and fundamental harmonic of Ti:Sa laser (option)

Specifications¹

	Model	LS-2134-LT40	LS-2145-LT50
Wavelength		1064, 532, 355², 266²	
Tuning range($\Delta\lambda$), nm FF		690-1000	
SH		350-500	
TH		235-325 ²	
FH		210-235 ²	
Pulse Energy Nd:YAG, mJ	FF	260	350
	SH	160	230
Ti:Sa, mJ	FF(at max. of tuning curve)	≥40/18³	$\geq 50/25^3$
	SH(at max. of tuning curve)	≥20/7³	≥20/10³
Linewidth of generation ($\delta\lambda$), nm		≤0.1/0.01 ³	
Pulse Repetition Rate (f), Hz		0,1; 0,2; 0,5; 1; 2; 5; 10	
Pulse Duration (FWHM),τ _{0.5} ns 1064nm		12-15	
Ti:Sa(at FF)		8-30	
Beam Divergency, $\Theta_{0.86}$ mrad 1064nm		≤1.0	
Ti:Sa(at FF)		≤1.5	
Input Power Requirement		(220±20)V, (50/60) Hz, single phase, 1000 VA	
Size L x W x H, mm (Weight, kg) Laser head		670x 474 x 143 (25.0)	
Power supply		391 x 364 x 192 (16.5)	
Cooling system		391 x 364 x 280 (15.5)	
Control Unit for PC control		256 x 257 x 111 (7.0)	
HG-TF Unit for Ti:Sa		328 x 236 x 130 (6.0)	

¹ All specifications are subject to change without notice



² With external HG-TF units

³ With intracavity ethalon