

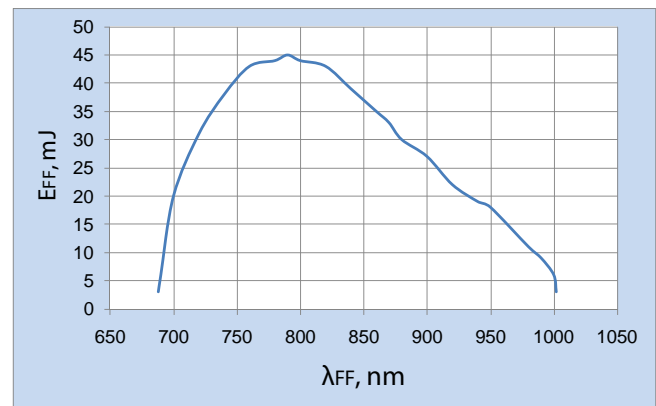
# LS-2145-LT50 Integrated Nd:YAG-Ti sapphire laser system



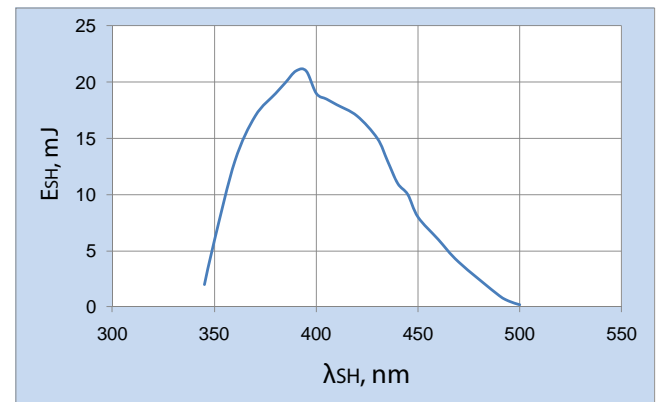
*LS-2145-LT50 is a fully integrated laser system that combines Q-switched pump laser and Ti sapphire converter of Nd:YAG green second harmonic radiation (532 nm) into tunable near IR, UV and visible spectral band. It is designed for scientific research in photochemistry, biology, medicine, for PAT and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

## Features & advantages:

- 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.
- PC control of pump laser and fundamental harmonic of Ti:Sa laser.
- Built-in high efficiency  $\text{Al}_2\text{O}_3:\text{Ti}^{3+}$  second harmonic unit
- Narrow output linewidth
- Laser can be fit with external third and fourth harmonic units of Nd:YAG and Ti:Sa, which increases the total tuning range to the UV spectral range up to 210 nm.



Tuning curve for FF,  $E_{\text{pump}}=150\text{mJ}$



Tuning curve for SH,  $E_{\text{pump}}=150\text{mJ}$

## Specification

Parameter	Value	Note
Wavelength, nm	1064, 532, 355*, 266*	FF, SH, TH*, FH* of Nd:YAG
Tuning range( $\Delta\lambda$ ), nm	FF: 690-1000 SH: 350-500 TH: 235-325* FH: 210-235*	Tunable
Pulse Energy Nd:YAG	FF, mJ: 350 SH, mJ: 230	At max. of tuning curve
Ti:Sa, mJ	FF: 50/25* SH: $\geq 20/10^*$	
Linewidth of generation ( $\delta\lambda$ ), nm	$\leq 0.1/0.01^{**}$	
Pulse Repetition Rate (f), Hz	10	
Pulse Duration (FWHM), $\tau_{0.5}$ ns	1064nm: 12-15 Ti:Sa (at FF): 8-30	Depend on output energy
Beam Divergency, $\theta_{0.86}$ mrad	1064nm: $\leq 1.5$ Ti:Sa (at FF): $\leq 1.5$	
Input Power Requirement	(220 $\pm$ 20)V, (50/60) Hz, single phase, 10A	
Size L x W x H, mm (Weight, kg)	Laser head: 670x474x143 (25.0) Power supply: 363x364x192 (19.0) Cooling System: 363x364x280 (20.0) Control Unit: 256x257x111 (7.0)	** -With external beam stop

\*With external HG-TF units

\*\* With intracavity ethalon

