

LS-2131M, LS-2131M-T, LS-2131M-F, LS-2132B

LS-2131M, LS-2131M-T, LS-2131M-F and LS-2132B are laser models for integration into laser systems with limitations on weight-dimension parameters.

The main advantages of lasers are compactness, robust design in combination with a wide choice of operating mode (pulse repetition frequency, burns mode, the presence of harmonics, etc.).

The reliability of lasers and the stability of output parameters are ensured by:

- the absence of external high-voltage connectors between power supply and laser head, the presence of special locks and sensors, provided the stable mode of operation

- an folded cavity with trihedral corner cube prism (model LS-2132B) is virtually immune to thermal and physical shocks

- the built-in photoprobe of fundamental wavelength energy for monitoring the output energy)

- integrated in one housing a laser power supply and efficient cooling system with a water-to-air heat exchanger,

- thermal stabilization of the electro-optical Q-switch and second-harmonic crystal.

Laser control is performed from the remote control or personal computer. The software allows not only to control the operation of the laser, but also to perform complete diagnostics of laser parameters, including determination of the fundamental frequency energy (1064 nm), total number of lamp flashes, pump energy and output energy instabilities. To preserve the characteristics of the output radiation unchanged when the repetition frequency of the output pulses is changed, a frequency «cutting» mode is provided by adjusting the opening of the Q-switch at a constant pulse repetition rate.

SPECIFICATIONS¹

Model		LS-2131M-10	LS-2131M-20	LS-2131M-10-T	LS-2131M-10-F	LS-2132B
Energy, mJ	1064 nm	200	190	-	-	200
	532 nm	125	120	-	125	125
	355 nm	30 ²	30 ²	30	-	30 ²
	266 nm	35 ²	30 ²	-	35	35 ²
Pulse duration (FWHM at 1064 nm), ns		7-9				8-10
Pulse repetition rate, Hz		10	20	10		
Beam diameter, mm						≤5
Jitter ³ , ns						±1.0
Beam divergence ($\Theta_{0.86}$), mrad						≤1.5
Energy stability 1064 nm (rms), %						<0.6
Size LxWxH, mm (Weight,kg)						
Laser head		466x125x75 (5)		542x125x81 (7)		335x205x130 (8.5)
Power supply and cooling system		391x364x280 (21)		391x364x280 (21)		391x364x280 (21)
Remote control		105x175 (0.5)		105x175 (0.5)		105x175 (0.5)
Power requirements						Single phase, 220±20V, 50–60 Hz, 10 A

¹ All specifications are subject to change without notice

² With external harmonic generator HG-TF

³ With respect to external trigger of Q-switch

