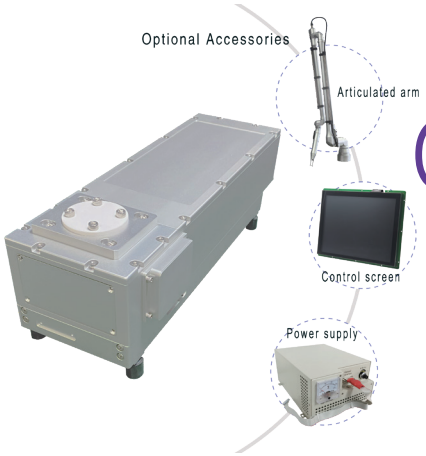


HQF Series Lamp-pumped Q-switched Nanosecond Laser

The HQF series lamp-pumped Q-switched nanosecond laser is a compact nanosecond laser with a single lamp and dual rod design. The flash lamp has a long service life and is easy to replace. The output beam has a flat-top distribution. The single wavelength and dual-wavelength options are available to output 800mJ or 1.2J respectively at a wavelength of 1064nm. It can also provide supporting components such as articulated arm, control screen, power supply, water cooler, etc. This series of products features compact design, high stability, excellent beam quality, and high energy output. They are widely used in the aesthetic medicine and analytical instrument industries, such as tattoo removal, pigmentation removal, skin rejuvenation, LIBS, and other fields.

Key Features

- Single and dual wavelength outputs are optional
- Multiple energy options available
- Compact design, easy to integrate
- Excellent beam quality, top hat beam profile
- High cost-effectiveness

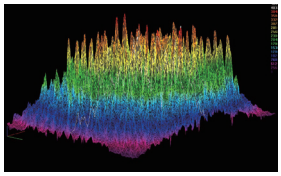
Applications

Aesthetic medicine
Tattoo removal
Pigmentation removal
Skin rejuvenation
Tissue ablation
Laser ranging
Micromachining
Laser-induced fluorescence (LIF)
Particle image velocimetry(PIV)
Laser-based ultrasound detection
Laser shock processing(LSP)
Differential absorption lidar
Raman spectroscopy
Non-linear optics
Laser-induced breakdown spectroscopy(LIBS)

Technical Specifications

Part Number		HQF-1064/532-10-6-800/400-N	HQF-1064/532-10-6-1200/600-N
Repetition rate（Hz）		1~10	
Pulse energy（mJ）			
1064nm		800	1200
532nm		400	600
Energy stability RMS			
1064nm		<2%	
532nm		<3%	
Power drift[1]			
1064nm		3%	
532nm		5%	
Other parameters			
Pulse width FWHM[2]（ns）		<8	
Beam full divergence (typ., mrad)	Horizontal @1/e²	<5	
	Vertical @1/e²	<5	
Pointing stability[3]（μrad）		<50	
Time jitter[4]（RMS,ns）		<0.5	
Beam diameter[5]（mm）		~9.5	
Spatial profile		Top hat	
Polarization state		linear polarization	
Cooling method		water cooling	
Electrical Supply		220VAC±5% 50~60Hz	
Power consumption		<1.0kW(800mJ@10Hz)	
Environment requirements		temperature 5~35℃，humidity <80%	

Beam Profile



Beam intensity distribution

1. Average energy variation is measured at room temperature with fluctuations less than 3℃ within 8 hours.
2. Full Width at Half Maximum (FWHM).
3. Deviation from beam mean centroid.
4. With respect to external trigger.
5. Measurement at a distance of 10cm from the laser outlet.

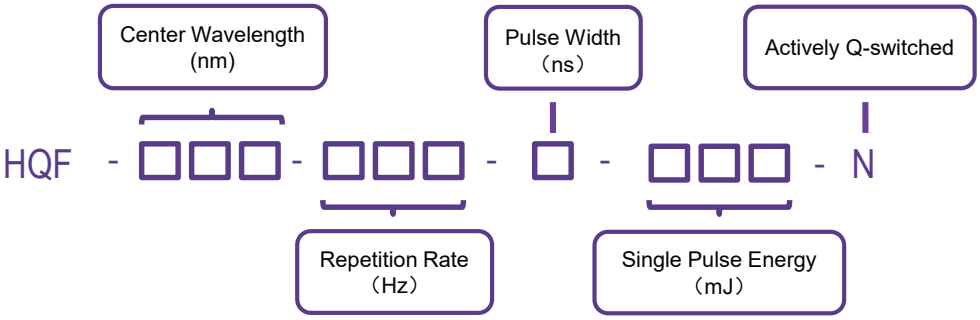
Others: Unless otherwise specified, all parameters are obtained from testing at a wavelength of 1064nm. Lasers with wavelength at 355nm or 266nm can be customized upon request.

RealLight 睿林睿光

Order Information

Wavelength (nm)	Part Number	Repetition Rate (Hz)	Single Pulse Energy (mJ)	Pulse Width (ns)
1064/532	HQF-1064/532-10-6-800/400-N	1~10	800@1064nm 400@532nm	<8
	HQF-1064/532-10-6-1200/600-N	1~10	1200@1064nm 600@532nm	<8

Part Numbering Schema



Mechanical Drawings (in mm)