HQF Series Lamp-Pumped Dual-Wavelength Long Pulse Laser (2940nm & 1064nm)



HQF series lamp-pumped dual-wavlength long pulse laser consists of a near-infrared laser module unit, a mid-infrared laser module unit and an energy detection module. This laser outputs dual wavelengths of 2940nm and 1064nm. Since different wavelengths target distinct chromophores and exhibit differential tissue penetration depths, they can be synergistically combined in clinical treatments. The system features high energy output, exceptional stability, and uniform beam distribution. Compatible accessories include output fibers, articulated arms, control panels, power supplies, and water-cooling units.

Key Features

- Dual-wavelength output at 2940nm & 1064nm
- Built-in energy detector
- Built-in shutter

Applications

Periodontics
Implantology
Pigmentary Disorders
Vascular Lesions
Soft Tissue Surgery
Photobiomodulation

Technical Specifications

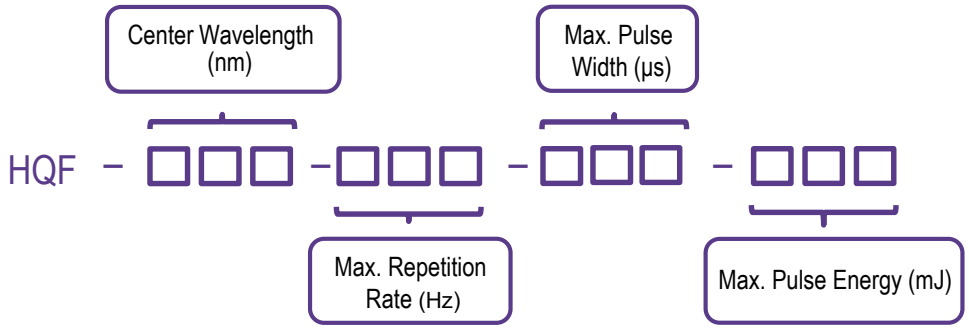
Wavelength (nm)	2940	1064	
Single Pulse Energy (mJ)	1000	500	200
Pulse Width (μs)	50~1000	150~25000	
Repetition Rate (Hz)	20	30	25
Power (W)	20	15	5
Other Optical & System Parameters			
2940nm&1064nm Beam Mode	Multi-mode		
Output Method	via articulated arm (appearance subject to end-user requirements)	via optical fiber (300μm core)	via optical fiber (200μm core)
Laser energy stability (St)	±20% max.		
Laser energy reproducibility (Rp)	±20% max.		
Aiming Beam Wavelength	532±20nm		
Aiming Beam Power	>2mW		
Working Conditions	Ambient temperature: 10℃~30℃		
	Relative humidity: 10%~73% (non-condensing)		
	Atmospheric pressure: 86kPa~106kPa		
	Power supply: 220V/110V±10%AC, 50/60Hz		

1. All the data in the above table are the typical values obtained from the tests at room temperature of 25℃, and the final data is subject to the final test report.

Order Information

Wavelength (nm)	Part Number	Max. Repetition Rate (Hz)	Max. Pulse Width (μs)	Max. Pulse Energy (mJ)
2940/1064	HQF-2940/1064-20/30-1000/25000-1000/500	20@2940 30@1064	1000@2940 25000@1064	1000@2940 500@1064

Part Numbering Schema



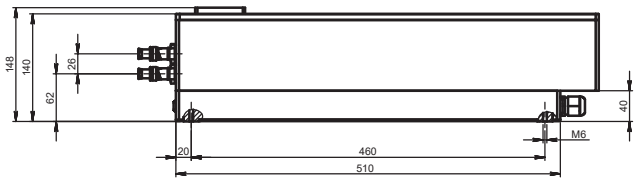


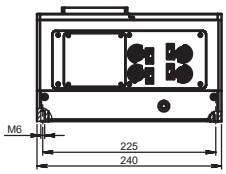
Beam profile (2940nm)

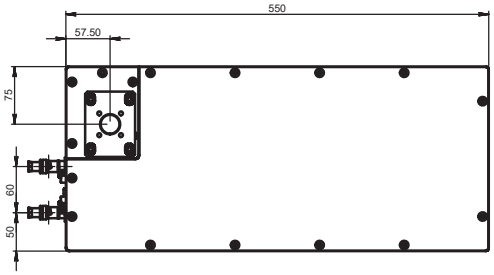


Beam profile (1064nm)

Mechanical Drawings (in mm)

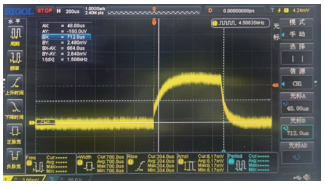








Typical pulse (2940nm)



Typical pulse (1064nm)

Compatible Accessories Available



Articulated arm



power supply

