

HQF Series Lamp-Pumped Dual-Wavelength Long Pulse Laser



HQF series lamp-pumped dual-wavelength 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 1064nm and 2940nm. 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 1064nm & 2940nm
- ◆ Multiple operating modes
- ◆ Excellent beam homogeneity
- ◆ High stability
- ◆ Compact architecture with hermetic sealing, high reliability

Applications

Periodontics
 Implantology
 Pigmentary Disorders
 Vascular Lesions
 Soft Tissue Surgery
 Photobiomodulation

Technical Specifications

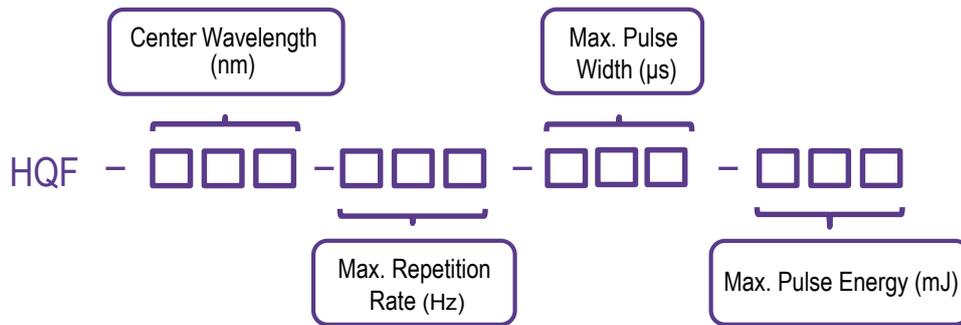
Wavelength (nm)	2940nm					1064nm (300µm Fiber Coupled)				
Nominal Pulse Width (µs)	50	150	300	600	1000	150	300	750	15 ms	25 ms
Max. Repetition Rate (Hz)	50	50	50	20	20	100	100	100	8	8
Pulse Energy (mJ@Max.Repetition Rate)	120	120	50	40	120	50	50	50	1200	1200
Typical Repetition Rate (Hz)	15	12	20	12	12	30	30	30	1	1
Max. Pulse Energy (mJ)	450	700	1000	1000	1000	500	500	500	2000	2000
Repetition Rate (Hz@Max. Pulse Energy)	20	15	20	12	12	30	30	30	5	5
Max. Power (W)	9	10.5	20	12	12	15	15	15	10	10
Other Optical & System Parameters										
2940nm&1064nm Beam Mode	Multi-mode									
Output Method	Dual independent outputs: 2940 nm via articulated arm (appearance subject to end-user requirements); 1064 nm via optical fiber (200µm/300µm core) with automatic switching capability									
Laser energy stability (St)	±20% max.									
Laser energy reproducibility (Rp)	±20% max.									
Aiming Beam Wavelength	532±20nm									
Aiming Beam Power	>2mW, <5mW									
Working Conditions	Ambient temperature: 10°C~30°C									
	Relative humidity: 10%~73% (non-condensing)									
	Atmospheric pressure: 86kPa~106kPa									
	Power supply: AC220V, 50Hz, ≤10A									

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

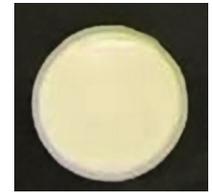
Order Information

Wavelength (nm)	Part Number	Max. Repetition Rate (Hz)	Max. Pulse Width (μ s)	Max. Pulse Energy (mJ)
2940/1064	HQF-2940/1064-50/100-1000/25000-1000/2000	50@2940 100@1064	1000@2940 25000@1064	1000@2940 2000@1064

Part Numbering Schema

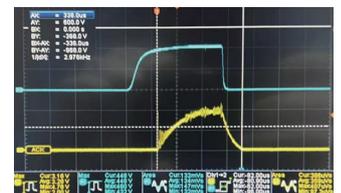
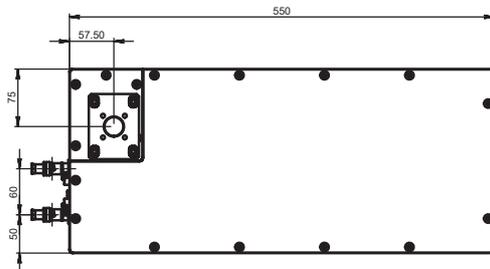
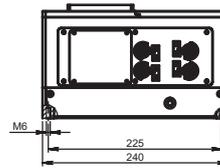
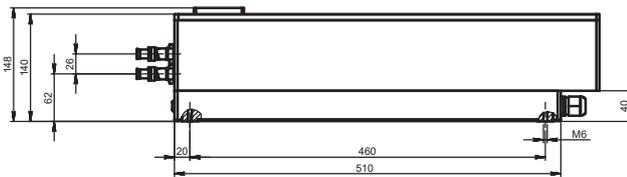


Beam profile (2940nm)

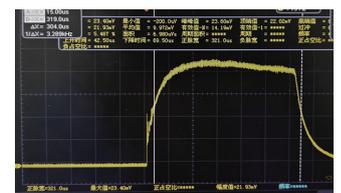


Beam profile (1064nm)

Mechanical Drawings (in mm)



Typical pulsewidth (2940nm)



Typical pulsewidth (1064nm)

Compatible Accessories Available



Articulated arm



power supply

