



HQF Series Sub-nanosecond Lamp Pumped Solid State Laser

Key Features

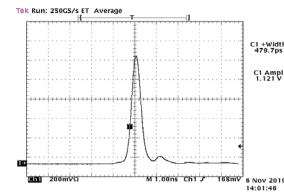
- ◆ Single pulse energy up to 500mJ
- ◆ Peak power up to 1.5GW
- ◆ Repetition rate up to 10Hz
- ◆ Excellent beam homogeneity
- ◆ Great stability
- ◆ Compact design, sealed package, high reliability

Applications

- Laser ranging
- Differential absorption lidar
- Particle image velocimetry (PIV)
- Laser shock processing (LSP)
- Laser-induced breakdown spectroscopy (LIBS)
- Laser-based ultrasound detection
- Laser-induced fluorescence (LIF)
- Tissue ablation
- Non-linear optics



Beam profile of the amplified pulse



Typical pulsewidth

Technical Specifications

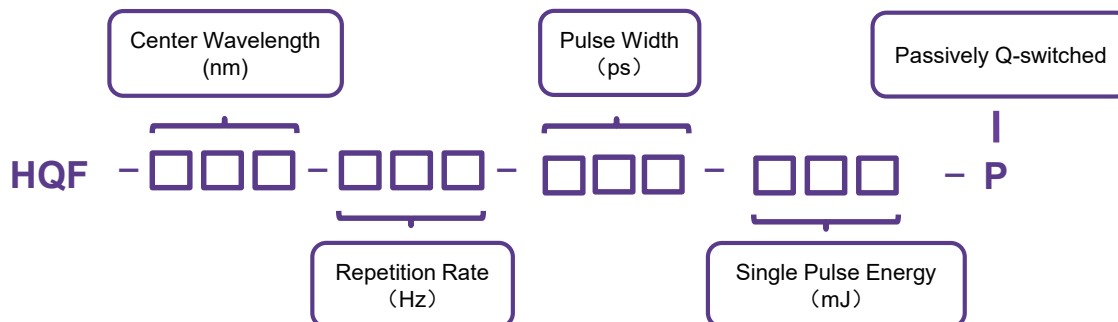
Part Number	HQF-1064/532-10-500-500/300-P	HQF-1064/532-5-400-400/200-P
Repetition rate (Hz)	1~10	1~10
Pulse energy (mJ)		
1064nm	500	400mJ@5Hz, 250mJ@10Hz
532nm	300	200mJ@5Hz, 100mJ@10Hz
Energy stability RMS		
1064nm	<2%	
532nm	<3%	
Power drift1		
1064nm	<2%	
532nm	<3%	
Other parameters		
Pulse width FWHM (ps)	500	
Beam full divergence (typ., mrad)	Horizontal @1/e ²	<3
	Vertical @1/e ²	<3
Beam diameter (mm)	~11	
Spatial profile	Top hat	
Polarization direction	Vertical	
Electrical supply	220VAC±5% 50-60Hz	
Power consumption	<1kW(500mJ@10Hz)	
Environment requirements	temperature 5~35°C, humidity <80%	

1. Average energy variation is measured at room temperature with fluctuations less than 3°C within 8 hours.
2. Lasers with wavelength at 355nm or 266nm can be customized upon request.
3. As products are constantly being updated, the right of final interpretation of technical specifications or illustrations in datasheet belongs to RealLight.

Order Information

Wavelength (nm)	Part Number	Repetition Rate (Hz)	Single Pulse Energy (mJ)	Pulse Width (ps)
1064/532	HQF-1064/532-10-500-500/300-P	1~10	500@1064 300@532	500
	HQF-1064/532-5-500-350/200-P	1~10	250@1064 100@532	400
		1~5	400@1064 200@532	400

Part Numbering Schema



Mechanical Drawings (in mm)

