AQE Series 100mJ Diode Pumped Actively Q-switched Laser



The AQE series is a self-developed stack-pumped actively Q-switched laser by RealLight, which utilizes our proprietary high-peak-power diode laser arrays for uniform pumping, delivering actively Q-switched laser output with high energy, high stability, and low power consumption. The laser resonator adopts a hermetically sealed design, while the driving control circuit is easy to integrate, offering diverse options for extended customization. This product is widely used in fields such as biomedicine, radar ranging, precision machining and scientific research.

Key Features

- Multiple wavelengths available: 1064/532/355/266nm
- Conduction cooling, low power consumption, high stability
- Supports both internal and external trigger functions
- Wide-temperature operation products are available for customization
- Optical shutter and energy detection functions can be customized
- Fiber coupling and position switch can be customized

Applications

Spectrum analysis
Biomedicine
Laser manufacturing
Radar ranging
Scientific research

Technical Specifications

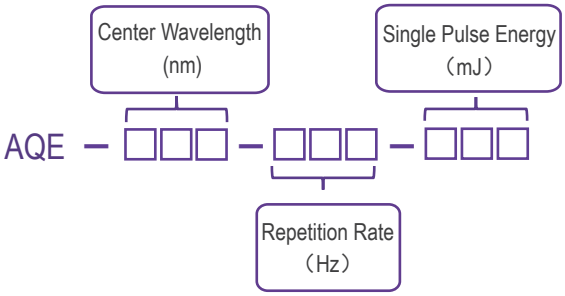
Optical Parameters					
Wavelength (nm)		1064	532	355	266
Repetition rate (Hz)		1~20			
Pulse energy (mJ)		100	50	25	10
Pulse width (ns)		≤10			
Power stabilty (RMS)		≤3%			
Full angle divergence typ. (mrad)	Horizontal @1/e²	≤3			
	Vertical @1/e²	≤3			
Beam diameter (at output port, mm)		4*4			
Cooling method		Air cooling			
Laser dimensions (W×H×L,mm)		125×70×170		125×70×210	
Operation temperature (˚C)		10~35			
Storage temperature (˚C)		-20~60			
Driver Parameters					
Supply power voltage		24VDC			
Control interface		J30J~21P			
Power consumption (W)		150W			
Trigger mode		Trigger In/Out			

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.

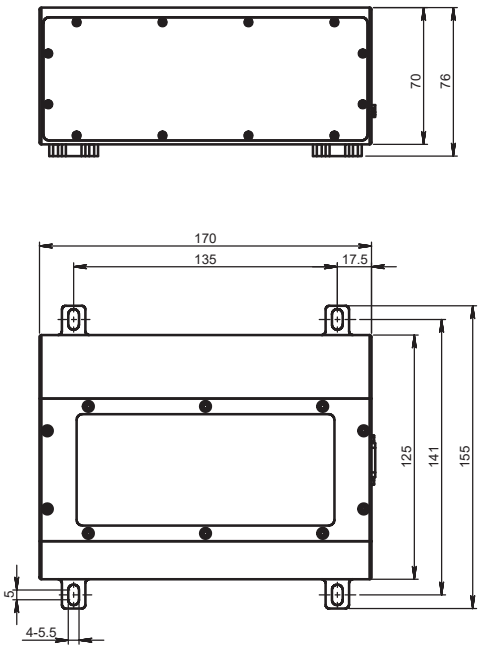
Order Information

Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse energy (mJ)
1064	AQE-1064-20-100	20	100
532	AQE-532-20-50	20	50
355	AQE-355-20-25	20	25
266	AQE-266-20-10	20	10

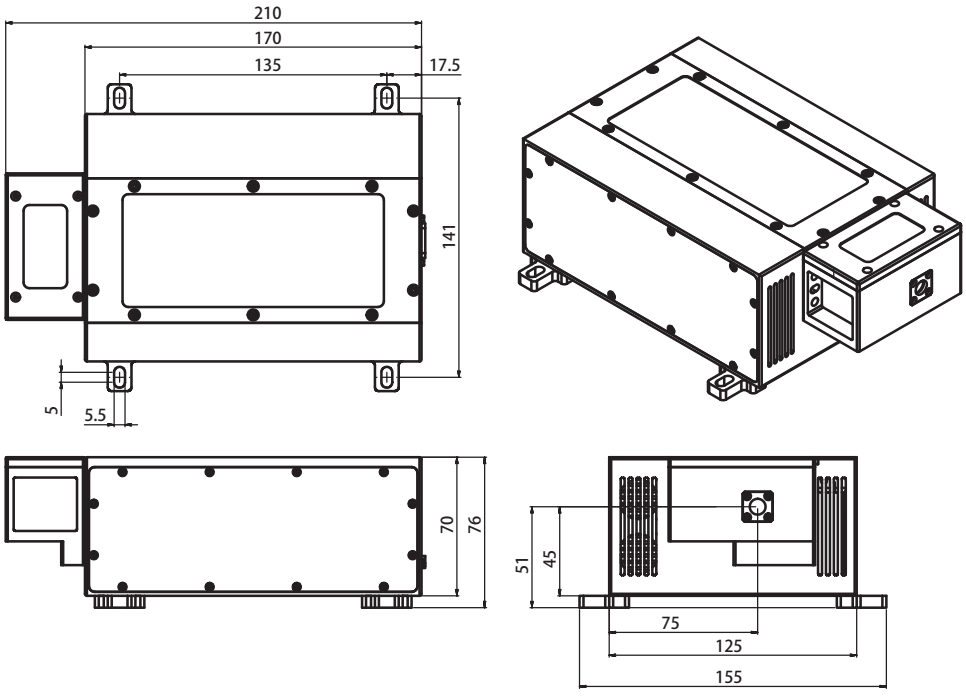
Part Numbering Schema



Mechanical Drawings (in mm)



1064nm & 532nm Drawing



355nm & 266nm Drawing

