AQE Series 50mJ Diode Pumped Actively Q-switched Laser

The AQE series is a self-developed stack-pumped actively Q-switched laser by RealLight. Utilizing our proprietary miniature diode laser arrays for uniform pumping, it features an integrated design combining the laser-sealed cavity with the driving control circuit, enabling compact, high-peak-power actively Q-switched laser output. This product is widely used in fields such as radar, processing and scientific research.

Key Features

- Multiple wavelengths available:1064/532/355/266nm
- Conduction cooling, compact design
- Low plug-in power consumption, strong environmental adaptability
- Wide-temperature operation products are available for customization

Applications

Spectrum analysis
Biomedicine
Laser manufacturing
Radar ranging
Scientific research

Technical Specifications

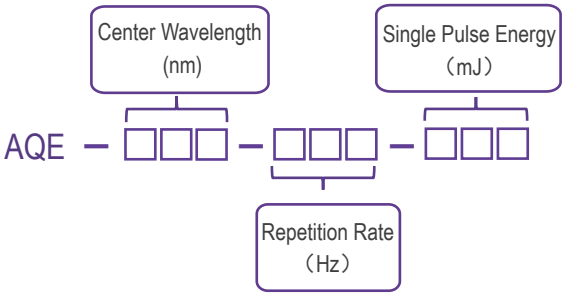
Optical Parameters					
Wavelength (nm)		1064	532	355	266
Repetition rate (Hz)		1~20			
Pulse energy (mJ)		50	25	15	5
Pulse width (ns)		≤6			
Power stabilty (RMS)		≤3%			
Full angle divergence typ. (mrad)	Horizontal @1/e²	≤4			
	Vertical @1/e²	≤4			
Beam diameter (at output port, mm)		3*3			
Cooling method		Air cooling			
Laser dimensions (W×H×L,mm)		95×70×150		95×70×190	
Operation temperature (˚C)		10~35			
Storage temperature (˚C)		-20~60			
Driver Parameters					
Supply power voltage		24VDC			
Control interface		J30J~21P			
Power consumption (W)		120W			
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.

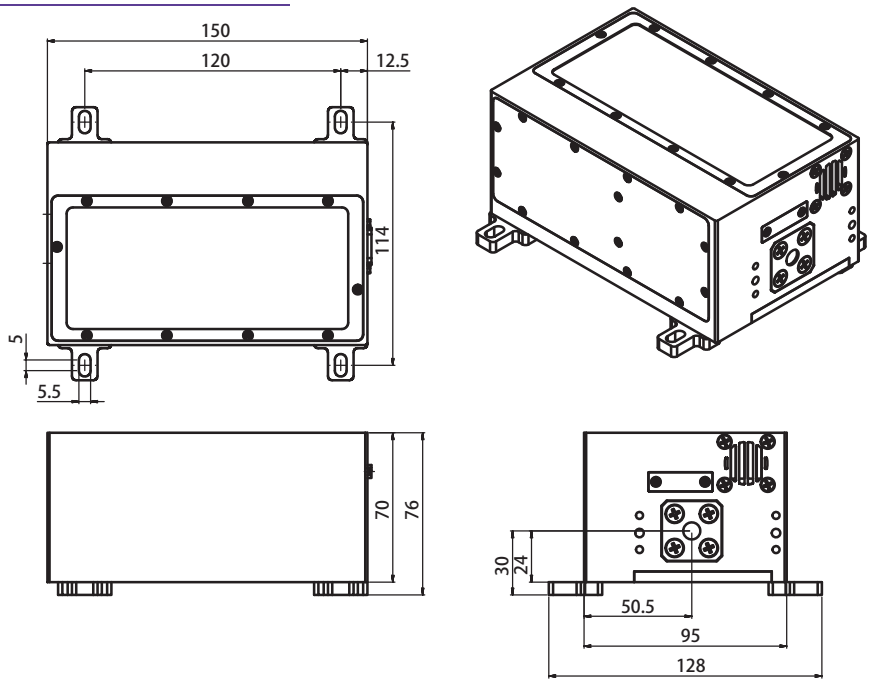
Order Information

Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse energy (mJ)
1064	AQE-1064-20-50	20	50
532	AQE-532-20-25	20	25
355	AQE-355-20-15	20	15
266	AQE-266-20-5	20	5

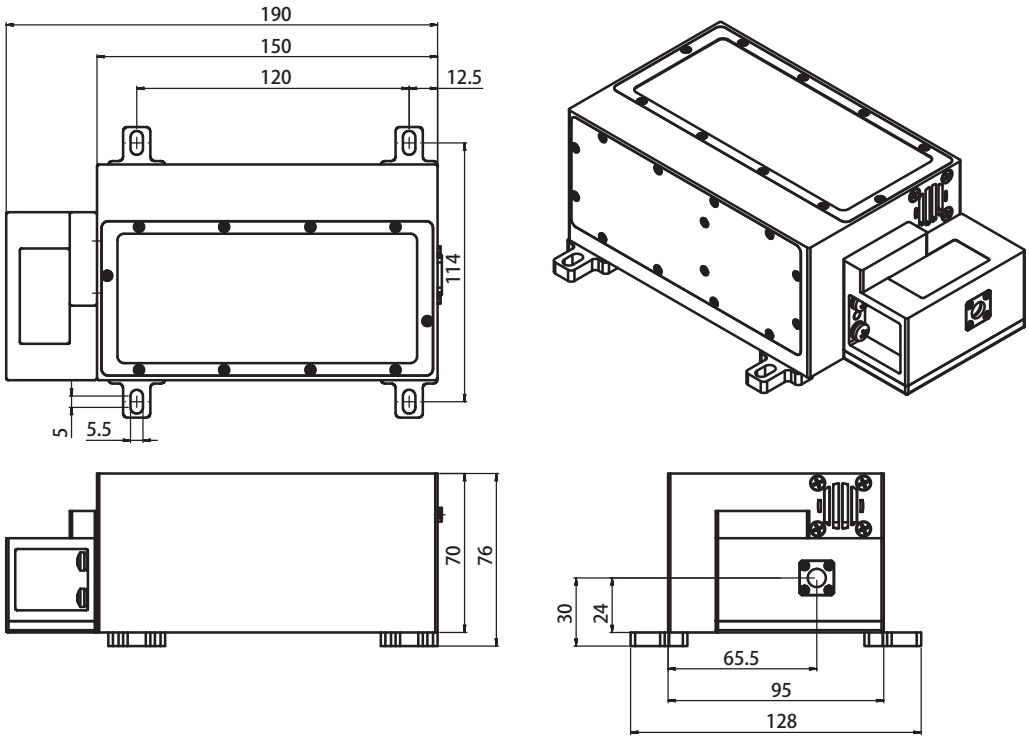
Part Numbering Schema



Mechanical Drawings (in mm)



1064nm & 532nm Drawing



355nm & 266nm Drawing