High Peak Power 1535nm Erbium Glass Laser Module With Beam Expander

High peak power 1535nm Erbium glass laser module with beam expander is an integrated laser module composed of high-energy erbium glass microchip laser, beam expander and photodetector (PIN) independently developed by RealLight, which is professionally used in laser ranging,laser remote sensing, lidar and other applications. The R1535-30X series of laser modules are specified to deliver high peak power of 500μJ-1mJ at 1535nm with divergence angle of less than 0.3mard, and provide PD output signal, which has the characteristics of small size, high reliability and wide temperature operation.

Key Features

- 1535nm, Eye-safe
- High peak power
- Divergence angle＜0.3mrad
- Integrated PD
- Compact structure
- High stability

Applications

Laser ranging

Laser remote sensing

Lidar

Technical Specifications

Optical Parameter		
Wavelength (nm)	1535	
Repetition rate (Hz)	10	5
Output power (μJ)	500	1000
Pulse width (ns)	6	7
Pump pulse duration (ms)	≤2.5	≤2.5
Beam diameter (mm)	14	16
Beam full divergence Typ.(mrad)	0.28	0.25
Magnification	30X	
System Parameters		
Operating current (A)	20	30
Operating voltage (V)	1.8	
Vibration	5Hz，2.5g	
Shock	Axial 100g, 1ms	
Operating temperature （℃）	-40~65	
Storage temperature (℃)	-55~80	
Storage relative humidity	⩽85%	
Operating lifetime (H)	⩾5000	

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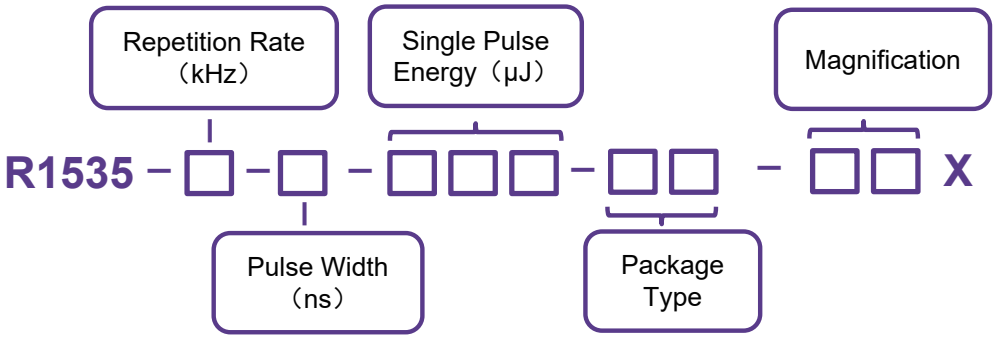
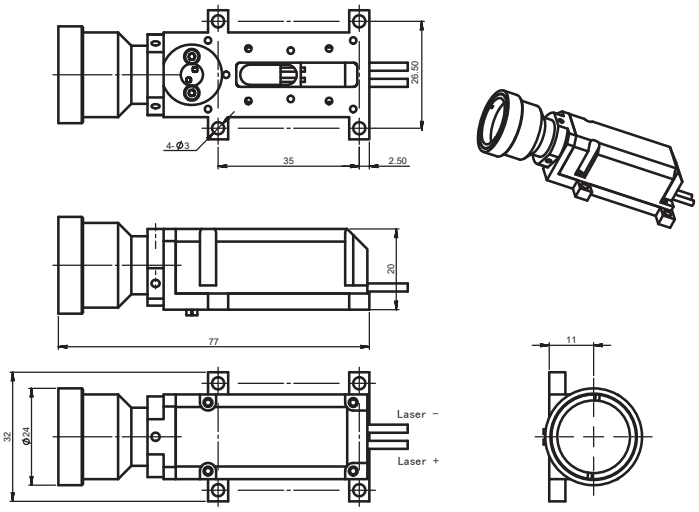
Order Information

Wavelength (nm)	Part Number	Repetition rate (Hz)	Pulse width (ns)	Single pulse energy (μJ)	Beam divergence (mrad)
1535	R1535-0.01-6-500-F3A-30X	10	6	500	0.28
	R1535-0.005-7-1000-F4A-30X	5	7	1000	0.25

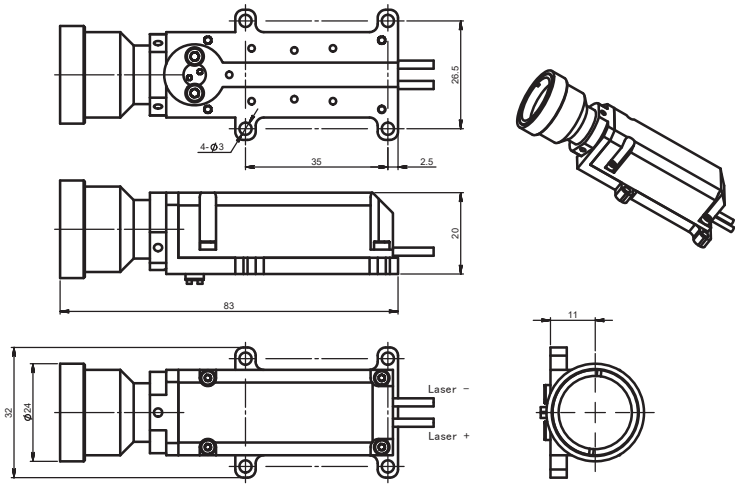
Part Numbering Schema



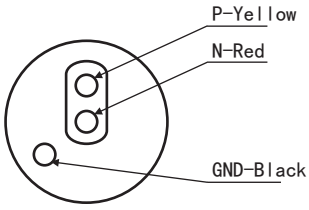
Mechanical Drawings (in mm)



R1535-0.01-6-500-30X



R1535-0.005-7-1000-30X



PD Pin Descriptions
（In the bottom of Laser Module）