

High Repetition Rate 1535nm Erbium Glass Laser Module With Beam Expander



High repetition rate 1535nm Erbium glass laser module with beam expander is an integrated laser module composed of high repetition rate erbium glass microchip laser, beam expander and photodetector (PIN) independently developed by RealLight, which is professionally used in laser ranging, altimeter, lidar and other applications. The R1535-40X series of laser modules are specified to deliver 5-40 μ J at 1535nm with high repetition rate of 1-10kHz and small divergence angle, and provide PD output signal, which has the characteristics of small size, high reliability and wide temperature operation.

Key Features

- ◆ 1535nm, Eye-safe
- ◆ High repetition rate
- ◆ Divergence angle < 0.5mrad
- ◆ Integrated PD
- ◆ Compact structure
- ◆ High reliability

Applications

- Laser ranging
- Laser remote sensing
- Lidar

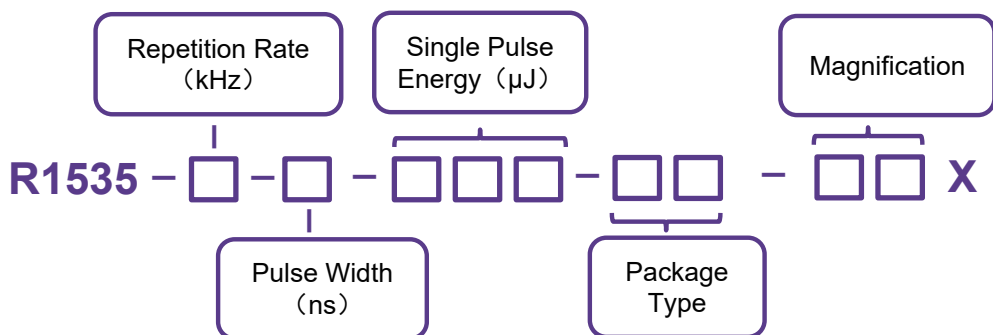
Technical Specifications

Optical Parameter				
Wavelength (nm)	1535			
Repetition rate (kHz)	1	2.5	5	10
Output power (μ J)	40	20	10	5
Pulse width (ns)	5	6	8	10
Beam diameter (mm)	12	12	12	12
Beam full divergence Typ.(mrad)	0.4	0.4	0.45	0.45
Magnification	40X			
System Parameters				
Operating current (A)	6			
Operating voltage (V)	1.8			
Vibration	5Hz, 2.5g			
Shock	Axial 100g, 1ms			
Operating temperature ($^{\circ}$ C)	-40~65			
Storage temperature ($^{\circ}$ C)	-55~80			
Storage relative humidity	≤85%			
Operating lifetime (H)	≥5000			

Order Information

Wavelength (nm)	Part Number	Repetition rate (kHz)	Pulse width (ns)	Single pulse energy (μJ)	Beam divergence (mrad)
1535	R1535-1-5-40-F1A-40X	1	5	40	0.4
	R1535-2.5-6-20-F1A-40X	2.5	6	20	0.4
	R1535-5-8-10-F1A-40X	5	8	10	0.45
	R1535-10-10-5-F1A-40X	10	10	5	0.45

Part Numbering Schema



Mechanical Drawings (in mm)

