

T01 Series Eye-safe Laser Transmitter



The T01 series is an integrated laser transmitter consisting of a diode-pumped passively Q-switched Erbium glass laser independently developed by RealLight, a transmitting antenna, and a photodiode. The laser module operates at the eye-safe wavelength of 1535nm and can synchronize the laser pulse signal. The transmitter has the characteristics of small size, small divergence angle, and wide temperature range operation. It is professionally used in LIDAR, laser range finding, laser remote sensing and other fields.

Key Features

- ◆ Eye-safe laser wavelength
- ◆ Integrated photodiode
- ◆ Small divergence angle
- ◆ Super compact design
- ◆ High reliability

Technical Specifications

Optical Parameters			
Wavelength (nm)	1535		
Repetition rate (Hz)	10		
Pulse energy of the laser (μJ)	>100	>200	>300
Transmitter transmittance	>90%		
Pulse width (ns)	<5		
Operating current (A)	8	10	12
Beam full divergence (mrad)	<0.55	<0.5	<0.5
Beam diameter (typ., mm)	7.5	8	8
Beam profile	TEM ₀₀		
Energy Stability (RMS)	3%		
PIN amplitude (typ., V@50Ω resistance)	3		
Weight (g)	13.5		
Operation temperature (°C)	-40~65		
Storage temperature (°C)	-55~80		

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 width (ns)	Pulse energy (μJ)	Beam full divergence(mrad)
1535	R1535-0.01-5-100-T01	10	5	100	<0.55
	R1535-0.01-5-200-T01	10	5	200	<0.5
	R1535-0.01-5-300-T01	10	5	300	<0.5

Applications

- Laser range finding
- Remote sensing
- LIDAR

Mechanical Drawings (in mm)

