

High Speed Picosecond Laser Source



General

This instrument is widely used in scientific research such as laser ranging, optical measurement, and the fluorescent lifetime analysis. Recent years, high-speed picosecond laser is further applied in the field of quantum cryptography, which becomes the core equipment generating quantum signal.

WT-LD series laser is an inexpensive, high stable optical equipment with ultranarrow pulse, was generated in the process of quantum cryptography communication system research. It can output continuous laser or ultra-narrow picosecond pulsed laser, the speed can uniquely reach 1GHz/1.25GHz. It can work in internal or external trigger mode. Users can choose the trigger signals through human-machine interface, with multi-common signal or self-defined, and adjust the parameters of the laser output.

Application

- Quantum key distribution
- Laser ranging
- Quantum optics
- Quantum optics, biological optics
- Optical measurement
- Fluorescent lifetime analysis
- Fiber characteristics analysis

Key Features

- Ultra-high repetition frequency: 1GHz/1.25GHz
- Wide pulse width adjustment range: $50 \sim 2000$ ps
- Ultra-low time jitter: <20ps
- Ultra-narrow laser line width: ≤0.9nm(@-20dB, 100MHz/125MHz, 200ps)
- High stability design: internal constant temperature controlled, reduce influence of temperature drifting
- Pulsed laser mode and continuous laser mode
- Internal and external trigger mode
- Multiple external trigger signal: LVTTL, PECL, LVPECL, NECL, CML, LVDS, NIM, etc.

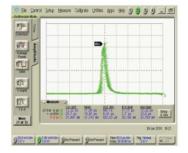
International Sales: RMY Electronics (Hong Kong) Ltd. Phone: +86-13801083934 Website: www.RMYelectronics.com/english

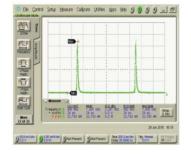


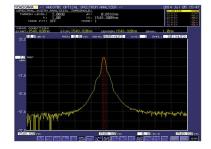
Specifications

Name	Index	Unit
Wavelength*	1550	nm
Optical pulse width	$50 \sim 2000$	ps
	ADJ($0.1 \sim 2.0$), precision 0.1ns	ns
Optical pulse time jitter	20	ps
External trigger frequency	1~1250	MHz
Internal trigger frequency	5~1250	MHz
Side mode suppression ratio	>=30dB (100MHz/125MHz, 200ps)	dB
Continuous mode optical power	1/2/5	mW
	ADJ($1.0 \sim 5.0$), precision 0.1mW	
Time delay adjustment range	$0\sim$ 5000(precision 5ps)	ps
Operation temperature	10~30	°C
Dimension (W×H×D)	275×138×354	mm
Power supply	100~240	VAC
Power consumption	≤50	W

*A typical data, the actual wavelength can be customized







Optical Spectrum Diagram (Pulse width 500ps)

Optical Time Domain Waveform (Pulse width 50ps at a reputation speed 1GHz)

Order Information

Part Number: WT-LD200-XY
X: S indicates single channel
D indicates dual channels
M indicates multiple channels
Y: H indicates repetition rate-1.25GHz

L indicates repetition rate- 1GHz

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