High-Speed Picosecond Laser PSLD-100



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

PSLD-100 series laser source is an economic, high stable optical instrument offering ultra-narrow laser pulse of picosecond level, was created in the process of quantum cryptography communication system research. It can output continuous laser signal or picosecond pulsed laser signals, the speed can uniquely reach 1GHz or 1.25GHz. It can work in optional internal or external trigger mode. Users can choose the trigger signals of multiple common types or self-defined signals, and adjust the parameters of the laser output through the front panel interface.

Application

- Quantum Key Distribution
- Laser Ranging
- Quantum Optics
- Biological Optics
- Optical measurement
- Fluorescent lifetime analysis
- Fiber characteristics analysis

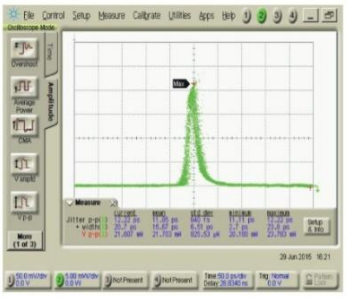
Key Features

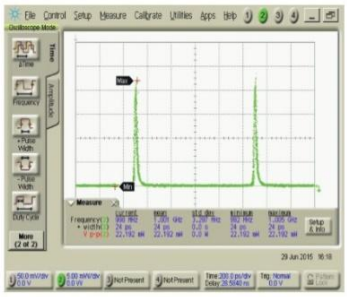
- Ultra-high repetition frequency：1GHz or 1.25GHz
- Wide pulse width adjustment range：50～2000ps
- Ultra-low Timing Jitter：< 20ps
- Ultra-narrow laser line width：< 0.9nm (@-20dB, 100MHz/125MHz, 200ps)
- Internal constant temperature controlled, reduce wavelength drifting
- Optional pulsed laser mode and continuous laser mode
- Optional internal and external trigger mode
- Multiple external trigger signal formats：LVTTL, LVPECL, NECL, CML and NIM etc.

Specifications

Name	Index	Unit
Wavelength*	1550	nm
Optical pulse width	50 ~ 2000	ps
	ADJ (0.1～2.0)，resolution 0.1ns	ns
Optical pulse Timing Jitter	< 20	ps
External trigger frequency	1 ~ 1000/1250	MHz
Internal trigger frequency	10/5 ~ 1000/1250	MHz
Side mode suppression ratio	> 30dB (100MHz/125MHz, 200ps)	dB
Optical power (CW mode)	1 / 2 / 5	mW
	ADJ (1.0～5.0)，resolution 0.1mW	
Time delay adjustment range	0～5000 (resolution 5ps)	ps
Operation temperature	10 ~ 30	℃
Dimension (W×H×D)	275×138×354	mm
Power supply	100 ~ 240	VAC
Power consumption	< 30	W

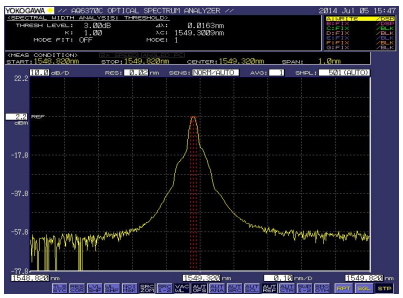
*A typical data, the actual wavelength window can be customized





Optical Time Domain Waveform

（Pulse width 50ps at a repetition speed 1GHz）



Optical Spectrum Diagram

（Pulse width 500ps）

Order Information

Part Number：PSLD-100-XY

X: S indicates single channel

D indicates dual channels

Y: H indicates repetition rate - 1.25GHz

L indicates repetition rate - 1GHz

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Subject to change without notice