

1.25GHz Picosecond Laser Source PSLD-100



This instrument is widely used in the scientific research such as laser ranging, optical measurement, and the 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/1.25GHz. It can work in selectable 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
- Quantum optics, biological optics
- Optical measurement
- Fluorescent lifetime analysis
- Fiber characteristics analysis

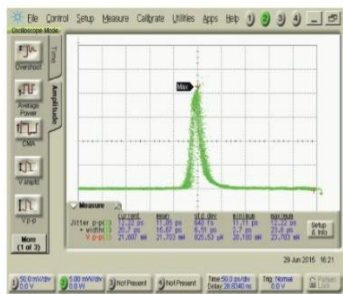
Key Features

- Ultra-high repetition frequency: 1GHz/1.25GHz
- Wide pulse width adjustment range: 50~2000ps
- 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 types: LVTTTL, PECL, LVPECL, NECL, CML, LVDS, NIM, etc.

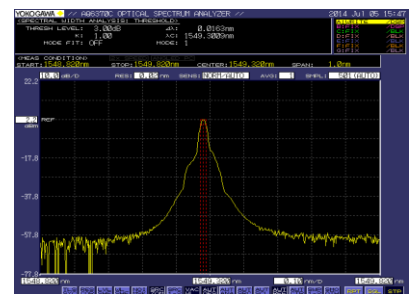
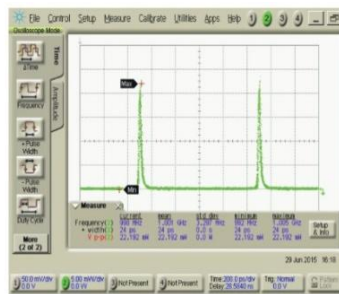
Specifications

| Name | Index | Unit |
|-------------------------------|---------------------------------|------|
| Wavelength* | 1550 | nm |
| Optical pulse width | 50 ~ 2000 | ps |
| | ADJ (0.1~2.0), resolution 0.1ns | ns |
| Optical pulse 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 (1.0~5.0), resolution 0.1mW | |
| Time delay adjustment range | 0~5000 (resolution 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 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