



6317 series

# Tunable Laser Source

(1240nm ~ 1680nm)



Ceyear Technologies Co., Ltd.

## Product Overview

Ceyear 6317A Tunable Laser Source is a newly released high performance tunable laser source. Its high-accuracy motion system and precision optical resonator enables high power, narrow linewidth, and mode hopping free continuous sweeping output 1240nm~1680nm. The output laser has extremely high wavelength/power repeatability and good dynamic range, and can synchronously output trigger level signals with extremely high wavelength accuracy during stable wavelength scanning.

The narrow linewidth characteristic of the 6317 series laser source, combined with the continuous scanning function of non-hopping mode wavelength, can help the optical frequency domain reflectometer (OFDR) achieve extremely ideal spatial resolution and positioning accuracy; The optical wavelength scanning system based on 6317 series light sources can efficiently test the wavelength related characteristic parameters (IL, PDL, etc.) of silicon optical chips, filters, wavelength selection switches and other optoelectronic chips/devices in the field of optical communication.

The 6317 series tunable laser source has advanced performance with competitive cost. It can become the internal core incentive source of various high-end optoelectronic testing instruments/systems, and can also be used as a universal calibration light source for various university laboratories, enterprise research and development centers, and measurement and testing institutions to help enable scientific researchers in the optoelectronic industry.

## Main Features

- 1240nm to 1680nm wavelength range
- $\pm 3\text{pm}$  wavelength accuracy
- 0.1 nm/s to 240 nm/s scanning speed
- Full-range mode-hopping-free design
- 100kHz linewidth
- $\pm 0.01\text{dB}$  power stability



## Application Area

- Characterization of optical components and modules
- Fiber optic transmission testing
- Quantum Photonics
- Optical Frequency Domain Reflection Analysis
- Spectroscopy
- Measurement calibration and metrology

## Technical specifications

Parameters		Unit	Specifications	
Wavelength	Wavelength Tuning Range	6317A	1500~1600/1500~1640/1480~1650/1500~1680	
		6317B	1260~1360/1240~1380	
	Wavelength Setting Resolution		pm	0.1
	Wavelength Stability <sup>[1]</sup>		pm	±2 (Typical±1)
	Absolute Wavelength Accuracy <sup>[2]</sup>		pm	±3
	Absolute Wavelength Accuracy (under working temperature)			±5
	Repeatability			±2 (Typical ±1)
Scanning Speed		nm/s	0.1~240	
Fine Tuning Range		GHz	≥10	
Power	Output Power <sup>[7]</sup>	Peak	≥13	
		@1260~1360/1500~1600/ 1500~1640	≥10	
		Full Range	≥7	
	Power Stability <sup>[1][3]</sup>		dB	±0.01
	Power Repeatability <sup>[3]</sup>		dB	±0.01
	Power Flatness <sup>[3][7]</sup>		kHz	±0.2
	Relative Intensity Noise (Rin) (Typical) <sup>[4]</sup>		dB/Hz	-145 (1MHz~3GHz)
Spectroscopy	linewidth (Typical)	Self Time Delay <sup>[5]</sup>	< 100	
		Intrinsic Linewidth	< 10	
	Side Mode Suppression Ratio (SMMR) (Typical)		dB	≥45
	Spontaneous Radiation Ratio <sup>[6]</sup>		dB	≥65
others	Optical Port Type		/	FC/APC
	Dimension (W×H×D)		mm	213×133×451
	Weight		kg	7
	Power Supply		/	100 – 240VAC, 50Hz/60Hz±5%
	Rated Power Consumption		VA	30
Working Conditions		/	Working Temperature: 15°C ~ 35°C; Relative Humidity: ≤80% ( )。	

\* All specifications are based on at least 1 hour warmup. The specifications are applicable to wavelengths outside the range of water absorption wavelengths.

[1] 1 hour duration, with ±0.5°C temperature change; [2] Environmental temperature:25±1°C; [3] Under “Auto” power mode, and output power is greater than 0dBm; [4] Maximum output power; [5] The length of the reference time delay fiber should be less than 2km;[6] The optical spectrum analyzer should be set to 0.02nm resolution and 6nm span. [7] From start wavelength to 1650nm.

## Ordering information

- **Main Unit:** 6317A /B Tunable Laser Source
- **Standard Accessories:**

No.	Name	Description
1	Power cord	Standard three-core power cord
2	User's Manual	
3	Certificate	

### Options:

1	6317A-H01	Wideband Output	Wavelength:1500nm-1640nm	
2	6317A-H02	English Version	All are in English.	
3	6317A-H03	Wideband 1650	Wavelength: 1480nm-1650nm	Can choose both to cover 1480nm to1680nm.
4	6317A-H04	Wideband 1680	Wavelength: 1500nm-1680nm	
5	6317A-H05	High resolution	High absolute accuracy: $\pm 2\text{pm}$	
6	6317B-H01	Wideband 1380	Wavelength: 1240nm-1380nm	
7	6317B-H02	English Version	All are in English.	
8	6317B-H05	High resolution	High absolute accuracy: $\pm 2\text{pm}$	
9	6317A-EWT1	1 year warranty	To extend one year warranty after standard 3 years standard warranty	For both 6317A and 6317B



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