



# 6362D

# **Optical Spectrum Analyzer**

## (600 nm – 1700 nm)



**Ceyear Technologies Co., Ltd** 

### **Product Overview**

6362D is a high-resolution, large-dynamic, high-speed, high-performance optical spectrum analyzer. It is perfect for testing 600 nm to 1700 nm optical systems, such as DWDM and optical amplifiers; It can also be used for optical active and passive device testing, such as LED, FP-LD, DFB-LD, optical transceivers and optical fibers and fiber gratings and other optical devices.

#### **Main Features**

- 20 pm minimum spectrum resolution
- 600 nm to 1700 nm spectrum scanning range
- 76dB large dynamic range
- -90dBm sensoring sensitivity
- Support spatial light input
- Built-in light source output configuration
- Powerful spectrum data analysis function for multiple applications
- 12.1-inch touch screen

#### 20 pm minimum spectrum resolution

6362D optical spectrum analyzer supports different resolution settings with flexible switching methods. The minimum spectrum resolution is better than 20pm.



Different Spectrum Resolution

#### **Peak Search**

6362D optical spectrum analyzer adopts the spectral adaptive peak retrieval algorithm. The peak retrieval accuracy is high. The adaptability and robustness are strong, and the calculation speed is very fast.



Spectrum Peak Searching

#### Single Longitudinal Mode Laser Spectrum Analysis

6362D spectrum analyzer has multi-scenario spectrum analysis functions. For single longitudinal mode laser light sources such as DFB-LD, the instrument provides two analysis methods of threshold analysis and side mode suppression ratio analysis. These methods can effectively and accurately evaluate the center wavelength, spectrum bandwidth and side mode suppression ratio of the single longitudinal mode light source to be measured.



DFB-LD suppression ratio analysis

#### Multi-longitudinal mode laser spectroscopy

For multi-longitudinal mode laser sources such as FP-LD, the 6362D optical spectrum analyzer provides three analysis methods: ndB loss analysis, envelope analysis and root mean square analysis. These methods can comprehensively evaluate the center wavelength and bandwidth of the multi-longitudinal mode light source to be measured.



Center wavelength and bandwidth test based on ndB Loss Method



Center wavelength and bandwidth test based on envelope analysis



Center wavelength and bandwidth test based on root mean square analysis

#### Various optoelectronic device application analysis functions

The 6362D spectrum analyzer can perform one-key test and analysis of various types of lasers such as LED, FP-LD, DFB-LD, and LD modules. It can realize batch processing for all test items.

In addition to semiconductor laser light source spectral measurement applications, the instrument also integrates optical fiber polarization mode dispersion measurement applications, wavelength division multiplexing applications, fiber amplifier applications, wavelength division multiplexing filter applications, wavelength division multiplexing fiber amplifier applications and other spectrum application functions. The figure below is a typical WDM application analysis.



## **Typical Applications**

Spectrum parameter test and analysis for optical ICs, FP-LD, DFB-LD, optical transceiver modules, optoelectronic systems and so on.



## **Technical Specifications**

Items		Specifications
Spectral Range		600~1700nm
Scan Span		0.2 nm to 1100 nm (full span), 0 nm
Wavelength Accuracy		±0.02 nm (1520nm to 1620nm)
		±0.04 nm (1450nm to 1520nm)
		±0.10 nm (full span)
Wavelength Linearity		±0.01nm (1520~1580nm)
Wavelengt	h Repeatability	±0.005nm(2分钟)
Wavelength Resolution Setting		0.02, 0.05, 0.1, 0.2, 0.5, 1, 2 nm
Minimum Sampling Resolution		0.001 nm
Sampling Points		101 to 50001, AUTO
Power Sensitivity Settings		NORMAL, MID, HIGH1, HIGH2 and HIGH3
Power Sensitivity		-90 dBm (1300 to 1620nm)
		-85 dBm (1000 to 1300nm)
		-60 dBm (600 to 1000nm) (Sensitivity: HIGH3)
maximum input power		+20 dBm (per channe, full wavelength band)
Maximum	safe input power	+25 dBm(Total input power)
Power accuracy		±0.4 dB (1310/1550nm, input power: -20dBm,
		sensitivity: MID)
Power Linearity		$\pm 0.05$ dB (input power: -50dBin to +10dBin)
Power flatr	ness	$\pm 0.1$ dB (15201111 to 15601111) $\pm 0.2$ dB (1450nm to 1520nm 1580nm to 1620nm)
Polarizatio	n Dependence	+0.05 dB (1550nm) +0.08 dB (1310nm)
<u> </u>	Resolution: 0.02 nm	60dB (neak +0.2nm) 46dB (neak +0.1nm)
Dynamic		$73dB$ (peak $\pm 1.0nm$ ), $63dB$ (peak $\pm 0.4nm$ )
Range	Resolution: 0.05 nm	52dB (peak $\pm 0.2$ nm)
	Resolution: 0.1 nm	60dB (peak ±0.4nm), 46dB (peak ±0.2nm)
Stray Light Suppression Rate		76dB
Optical Re	turn Loss	35dB (using APC connectors)
Applicable Fiber Type		SM (9.5/125um), GI (50/125um, 62.5 um, 125um), Large core diameter fiber (maximum 200um)
Optical Output Options		Standard C-band DFB calibration light source
		DFB/FP light source (standard 1550nm, other
		wavelengths are optional)
		SLED light source (band range optional),
		Other light source type accessories can be customized
Displaying		12.1 inch touch screen
Storage		128GB
Instrument Interface		USB/Ethernet/GPIB/RS232C/VGA
Working Conditions		Working Temperature: 0°C to 40°C:
		Humidity: ≤80%
		Performance guarantee temperature: $18^{\circ}$ to $28^{\circ}$
Dimensions		Width × Height × Depth = 426mm × 221mm × 450mm
Weight		19kg
Power Supply		100~240VAC、50\60Hz
Maximum Power Consumption		100W

Remarks: Wavelength calibration and optical axis alignment can be performed with an external light source.

### **Ordering Information**

#### • Main Unit:

6362D Optical Spectrum Analyzer

#### **Standard Configuration:**

No.	Name	Remarks
1	Power Supply Cable	Standard 3 core calbe for power supply
2	User Manual	
3	Quality Certificate	

#### • Options:

No.	Name	Remarks
6362D-S02	High Accuracy Analysis Software	Optimized wavelength measurement accuracy and dynamic range: Wavelength accuracy: ±10pm (1520nm to 1580nm) Dynamic range: better than 75dB (Typ: 76dB)
6362D-H02	Build-in Souce	Type: SLED Power: ≥1mW Center Wavelength: 1310nm/1490nm/1550nm (Selectable)
6362D-H03	Build-in Souce	Yype: SLED + C2H2 absorption tank Power: ≥1mW Center Wavelength: 1550nm



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