

# High Resolution Spectrometer

## BIM-66 Series

The BIM-66 series is a high-resolution spectrometer adopts an advanced optical-mechanical platform with compact size, ensuring exceptional portability. Its optimized optical design achieves a resolution of up to 0.08nm. Customers can select the wavelength range and optical resolution according to the requirements..

The spectrometer featuring USB interface for both data transmission and power supply, as well as RS232 communication support, it offers high cost-performance ratio, making it ideal for industrial and scientific research applications.

BIM-6602A spectrometer offers adjustable optical resolution and spectral range through interchangeable gratings. Its upgraded circuitry achieves a 10000:1 dynamic range, 0.5ms minimum integration time, and 600:1 SNR for weak signal detection.



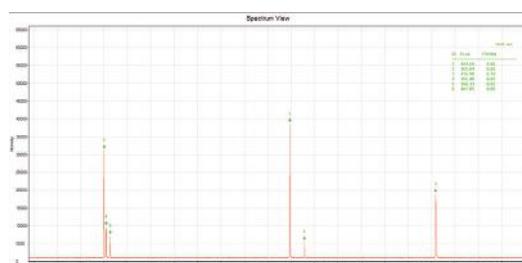
## Features

- Optical Resolution: Up to 0.08nm
- Compact Design: Palm-sized for easy operation
- Optical Path: Crossed asymmetric C-T configuration with interference filter for second-order diffraction suppression
- Fiber Connectivity: SMA905 fiber optic connector for seamless integration with external devices
- Flexible Configuration: Selectable wavelength range and optical resolution
- Interface: USB 2.0 for simultaneous data transfer and power supply
- Communication Protocol: RS232 support
- Triggering Options: Multiple trigger modes available
- Advanced Software: Automated peak wavelength and bandwidth calculation
- Customization: Supports SDK for secondary development and OEM integration

## Applications

- Laser center wavelength, FWHM and stability measurement
- Emission & absorption spectrum measurement
- Transmittance & absorbance testing
- Fluorescence detection
- Color measurement
- LED/LIBS measurement
- Solar energy spectrum testing

## Typical Spectrum



Mercury (Hg) Lamp Spectrum

## Specifications

Model	BIM-6601A Series	BIM-6602A Series	BIM-6606 Series		
Wavelength Range	315nm-1100nm optional	180nm-1100nm optional	200nm-1100nm optional		
Resolution	Optimal ~0.08nm	Optimal~0.08nm	Optimal ~0.1nm		
Fiber Connector	SMA905				
Detector Type	TCD1304,liner CCD	Hamamatsu S11639 linear CMOS	Hamamatsu S13496, linear array CMOS		
Detector Pixel	3648 pixel, each pixel 8 $\mu$ m $\times$ 200 $\mu$ m	2048 pixel, each pixel 14 $\mu$ m $\times$ 200 $\mu$ m	4096 pixel, each pixel 7 $\mu$ m $\times$ 200 $\mu$ m		
Signal to noise ratio	300:1	600:1	600:1 full spectrum		
A/D Resolution	16 bit				
Integrating Time	4ms -10s	0.5ms-65s			
Dynamic Range	300:1	10000:1			
Trigger Model	Normal Mode,Software,Hardware,Synchronization Trigger				
Power Consumption	250mA,5VDC				
Operating Temperature	5°C -35°C (25°C recommended)				
Communication Interface	USB 2.0(12Mbps), RS232(115200bps)				
Operation System	Win XP,Win7,Win8,Win10				
Power Supply	USB				
Dimension	140mm $\times$ 110 mm $\times$ 46 mm				
Weight	0.7 Kg				

## Dimensions (mm)

