

Near-Infrared Spectrometer

BIM-68 Series

The BIM-6805 series near-infrared spectrometer features a compact optical path and structural design, utilizes a Hamamatsu uncooled 128-pixel InGaAs detector that delivers ultra-low power consumption and versatile configuration options. With a spectral detection range of 950nm-1700nm, it is particularly well-suited for applications in food sorting, biopharmaceuticals, and life sciences, while also being ideal for system integration.

The BIM-6809 series near-infrared spectrometer represents an upgraded version of the BIM-6805, utilizes a Hamamatsu's uncooled 256-pixel InGaAs detector. This enhancement not only doubles the number of pixels but also increases pixel size, significantly improving both resolution and sensitivity. Each spectrometer can be configured with different width slit to accommodate diverse spectral measurement requirements for different resolution and sensitivity needs. Ideal for industrial integration and scientific research applications, it is particularly well-suited for food sorting, biopharmaceuticals, life sciences, and related fields.



Features

- Low-Power Operation: Utilizes uncooled InGaAs detector for minimal power consumption
- Detector Options: Available in 128-pixel or 256-pixel configurations
- Compact Design: Space-saving optical and structural layout for easy system integration
- Interchangeable Slits: Flexible switching between different resolutions and sensitivities
- Customizable Performance: Selectable wavelength ranges and resolutions
- Broad Spectral Range: Stable intensity measurements across 950nm~1700nm
- Development Ready: Supports secondary development and OEM integration
- Advanced Software: Auto-calculation of peak wavelength and bandwidth

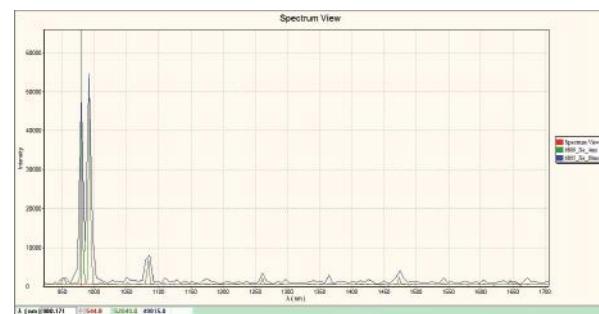
Applications

- Fruit & Vegetable Testing: Freshness and sugar content detection
- Meat Analysis: Fat and protein content measurement
- Grain & Seed Inspection: Quality assessment
- Oil Composition Analysis: Ingredient profiling
- Life Science Research: Biomedical applications
- Pharmaceuticals: Composition analysis and process monitoring
- Plastics Manufacturing: Raw material and production process control
- Material Sorting: Quality control and classification

Typical Spectrum



Comparison of Xenon Lamp Spectral Testing (BIM-6805 & BIM-6809)

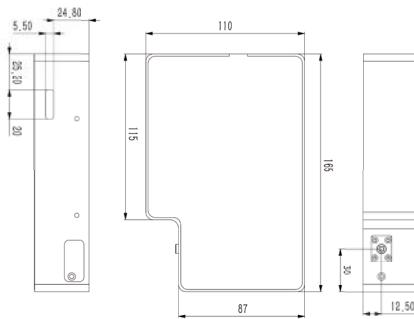


Comparison of Tungsten Lamp Spectral Testing (BIM-6805 & BIM-6809)

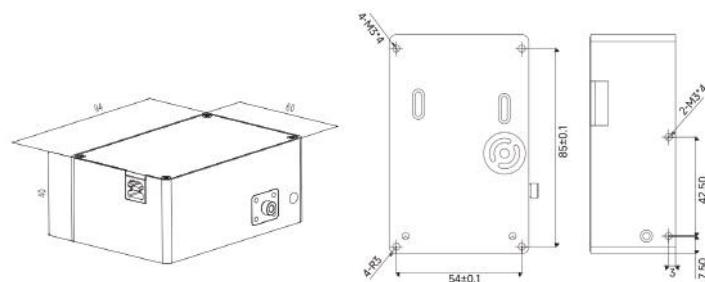
Specifications

Model	BIM-6805 Series		BIM-6809 Series
Detector	InGaAs 128-pixel non-cooled detector pixel size 50μm×250μm		InGaAs 256-pixel non-cooled detector Pixel size: 50 μm × 500 μm
Wavelength Range	950nm-1700nm		920nm-1700nm
Resolution	~10nm(pre-configured)		~5nm(pre-configuration)
A/D Resolution	16bit		
Integrating Time	0.1ms-65s		
Trigger Model	Normal Mode,Software,Hardware,Synchronization Trigger		
Power Consumption	5VDC, 300mA		
Fiber Connector	SMA905		
Operation Temperature	5°C -35°C (25°C recommended)		5°C -35°C (25°C recommended)
Communication	USB2.0,RS232		
Operation System	Win XP,Win 7,Win 8,Win10		
Power Supply	USB or 5V DC		
Dimension	165 × 110 × 38 mm		94 × 60 × 40mm

Dimensions (mm)



BIM-6805



BIM-6809