

# Mini Spectrometer

## BIM-6511 Series

BIM-6511 Series Mini Spectrometers employ a novel flat-field concave grating solution in their optical-mechanical design, which reduces the overall device size in coin-sized magnitude. This makes them exceptionally suitable to industrial integration & pocket-sized portable applications.

This series includes the standard BIM-6511 model, which is ready to use and integrate as a complete unit. Alternatively, the BIM-6511-NC model (without the main control circuit board) is available for customers who wish to develop their own main control circuit based on the our module.

The BIM-6511 Series Mini Spectrometers are an excellent choice for:

- Portable water quality testing equipment in the environmental protection monitoring industry.
- Handheld colorimetry devices in the lighting industry.

## Applications

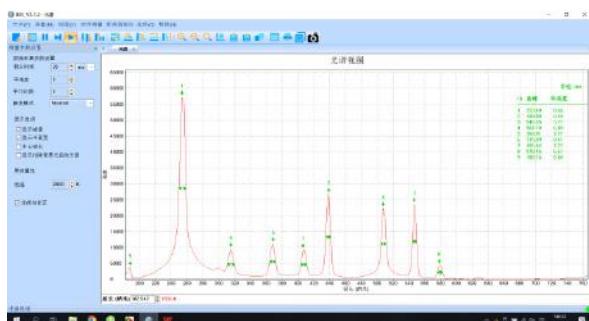
- Probe-type water quality measuring instrument integration
- Handheld lighting instrument integration
- Handheld material testing instrument integration
- Handheld component detection instrument integration
- Portable spectral measurement



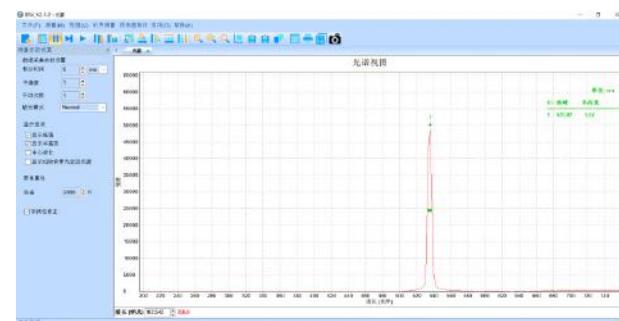
## Features

- Compact as a matchbox, it is highly portable and easy to integrate
- Power and communication through USB port
- Offers multiple trigger modes and powerful software capabilities
- SDK provided for custom development
- Two versions available: with or without the main control circuit

## Typical Spectrum



Mercury (Hg) Lamp Spectrum

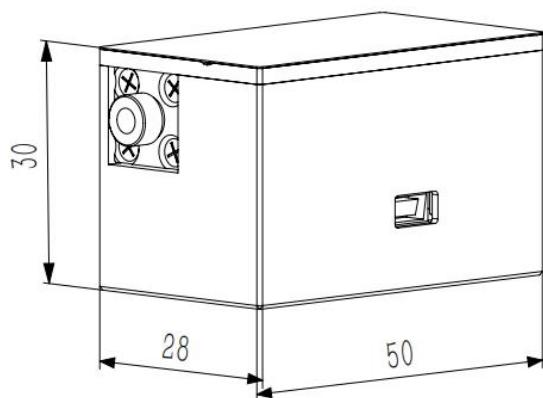


532nm Laser Spectrum

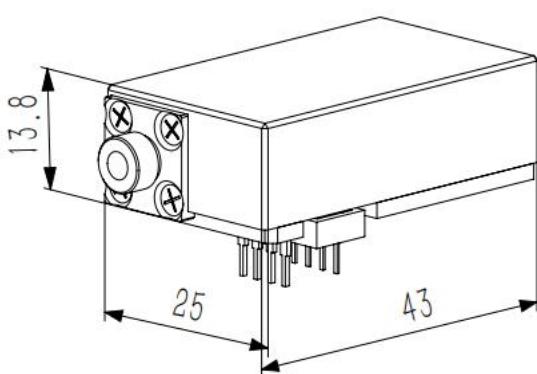
## Specifications

	Model	BIM-6511	BIM-6511-NC
	Wavelength Range	200nm-750nm	200nm-750nm
Optical power meter	Optical Resolution		~6nm
	Slit width		25um
	Fiber Connector	SMA905	SMA905
	Detector Type	Hamamatsu S8378-256,CMOS	Hamamatsu S8378-256,CMOS
	Detector Pixel	256 pixel	256 pixel
	Signal to noise ratio	400:1	
	A/D Resolution	16 bit	
Light source	Integrating Time	5ms -60s	
	Dynamic Range	1000:1	
	Trigger Mode	Mode, Software, Hardware, Synchronization Trigger	Depends on the customer's main control board
	Power Consumption	250mA,5VDC	
	Operating Temperature	5°C -35°C (25°C recommended)	
LD Driver & TEC Controller	Communication Interface	USB2.0 (12Mbps), RS232 (115200bps)	
	Operation System	Win XP,Win7,Win8,Win10	
	Power Supply	USB	
	Dimension	50 mm×28 mm×30 mm	43 mm×25 mm×13.8 mm
	Weight	100 g	30g

## Dimensions (mm)



BIM-6511



BIM-6511-NC