

Wide-Band Spectrometer

ATP9200

Features

- Multi-spectrometer array design
- Wide-band + high resolution
- 200–2500nm range
- 2060 spectral channels
- 1ms–10s integration time
- Anti-diffraction coating
- High quantum efficiency
- 40% higher NIR sensitivity
- Dark current correction
- Portable with case
- DC 12V power
- Fiber/free-space input
- External trigger support
- USB 2.0 output
- PC software control

Applications

- Plasma signals
- Optoelectronic signal analysis
- Spectral analysis across fields

Description

The ATP9200 Series Wide-Band Spectrometer is the latest product from Optosky, offering an exceptionally broad wavelength range of 200nm–2500nm, making it suitable for applications in physics, optoelectronics, materials science, biology, and other fields.

The ATP9200 Series Wide-Band Spectrometer combines multiple spectrometers covering different spectral ranges to achieve ultra-wide bandwidth while maintaining high spectral resolution. It features high cost-performance, rapid and accurate measurements, user-friendly operation, and portability. Equipped with a powerful software package, it not only measures spectral signals but also supports reflectance, transmittance, radiometric, photometric, and colorimetric measurements.

The ATP9200 can accept external trigger signals for synchronized optical signal acquisition.

It supports SMA905 fiber-optic input or free-space light input and outputs spectral data via USB 2.0.



1. Selection Guide

Model	Feature
ATP9200-17	200-1700nm
ATP9200-25	200-2500nm

2. Parameter

	Specifications	ATP9200-17	ATP9200-25
Detector	Type	Back-Illuminated Area CCD, Si/InGaAs Detector	
	Effective Pixels	200~1000nm: 2048 pixels 1000~1700nm: InGaAs 512 pixels (2-stage TEC cooled) 1000~2500nm: InGaAs 512 pixels (2-stage TEC cooled)	
Optical Specifications	Wavelength Range	200-1700nm	200-2500nm
	Optical Resolution	0.9~1.3nm@756nm 3~5nm@1400nm	0.9~1.3nm@756nm 7~12nm@1400&2100nm
	Wavelength Repeatability	200-1000nm: ± 0.1 nm 1000-1700nm: ± 0.5 nm	200-1000nm: ± 0.1 nm 1000-2500nm: ± 3 nm
	Wavelength Repeatability	200-1000nm: ± 0.5 nm 1000-1700nm: ± 1.1 nm	200-1000nm: ± 0.5 nm 1000-2500nm: ± 5 nm
	SNR	200-1000nm: >800: 1 1000-1700nm&1000-2500nm: >2000:1	
	Dynamic Range	200-1000nm: >10000: 1 1000-1700nm&1000-2500nm: >15000:1	
	Entrance Slit Width	5/10/25/50/100/150/200 μ m selectable, other sizes customizable	
	Light Input Interface	SMA905 fiber optic interface	
	Spectral Sampling Interval	200-1000nm: 0.4nm 1000-1700nm: 1.5nm	200-1000nm: 0.4nm 1000-1700nm: 2.0nm
Electrical Parameters	Integration Time	10 ms ~ 10s	
	Spectrum Averaging Counts	Up to 100,000 times	
	Data Output Interface	USB2.0	
	ADC Bit Depth	16bit	
	Power Supply	External 12V DC power supply	
	Operating Current	2.5A	3.5A
Physical Specifications	Operating Temperature	-25°C to +50°C	
	Operating Humidity	< 90% RH (non-condensing)	
	Dimensions	330×250×155 mm ³	
	Weight	7.45 kg	

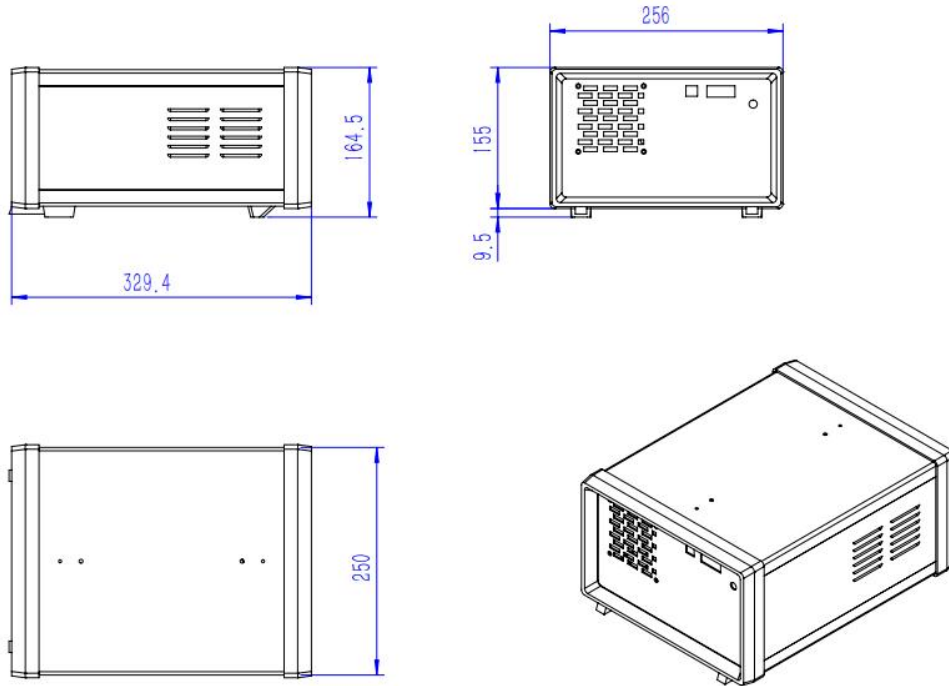
3. Accessories

Standard Accessories	
1	USB 2.0 Cable
Optional Accessories	
1	UV-VIS resistant optical fiber
2	Adjustable optical attenuator
3	Standard diffuse reflectance white panel
4	Integrating sphere holder for transmittance/reflectance measurement
Standard Accessories	
1	USB 2.0 Cable

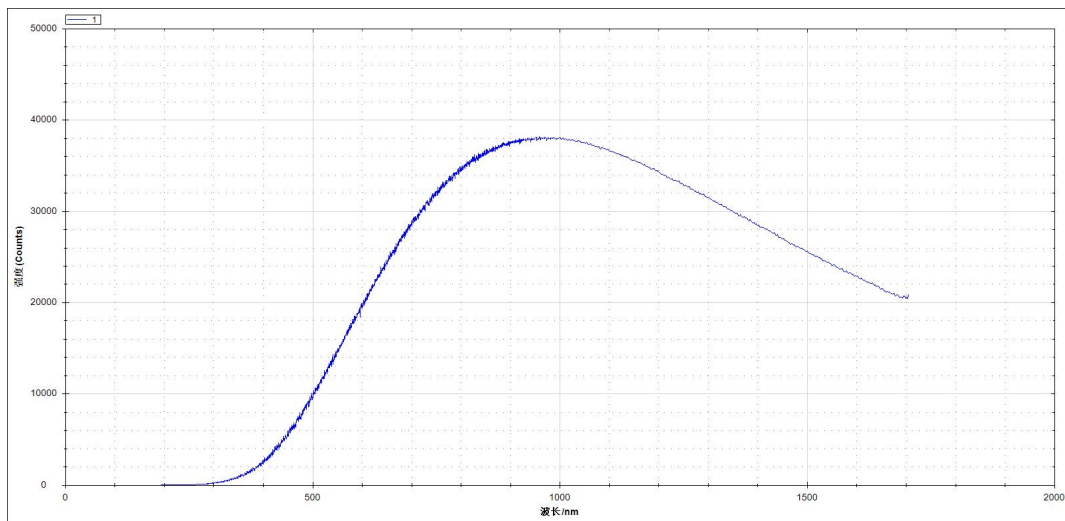
4. Effect Diagram



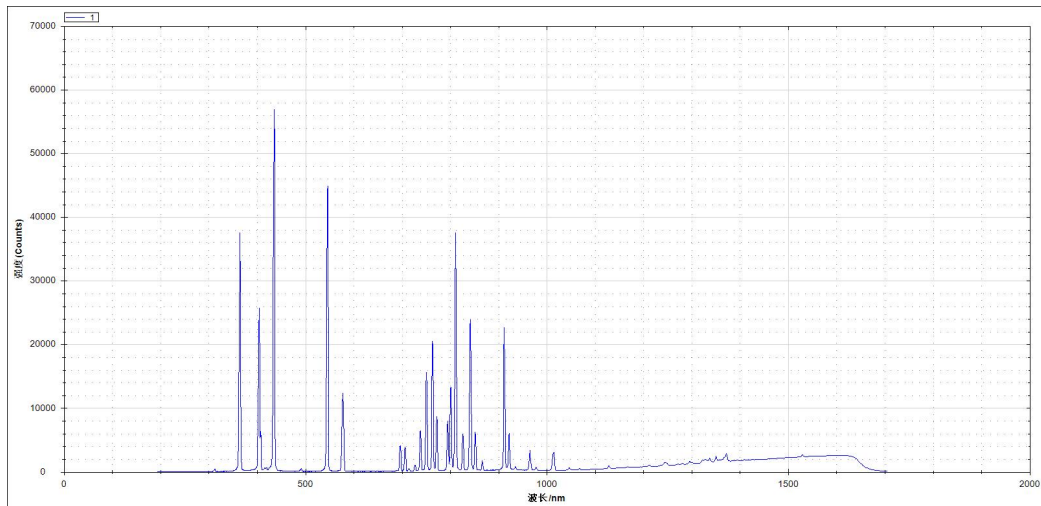
ATP9200



5. Performance Test

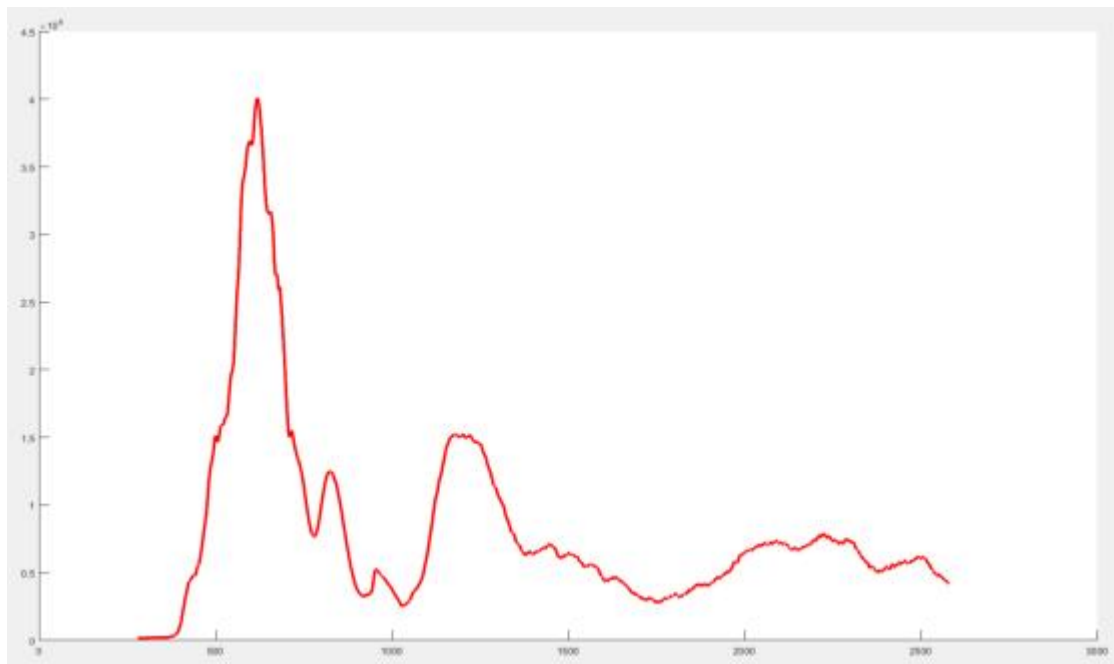


ATP9200 Measured Halogen Reference Spectrum (Waveform Corrected)

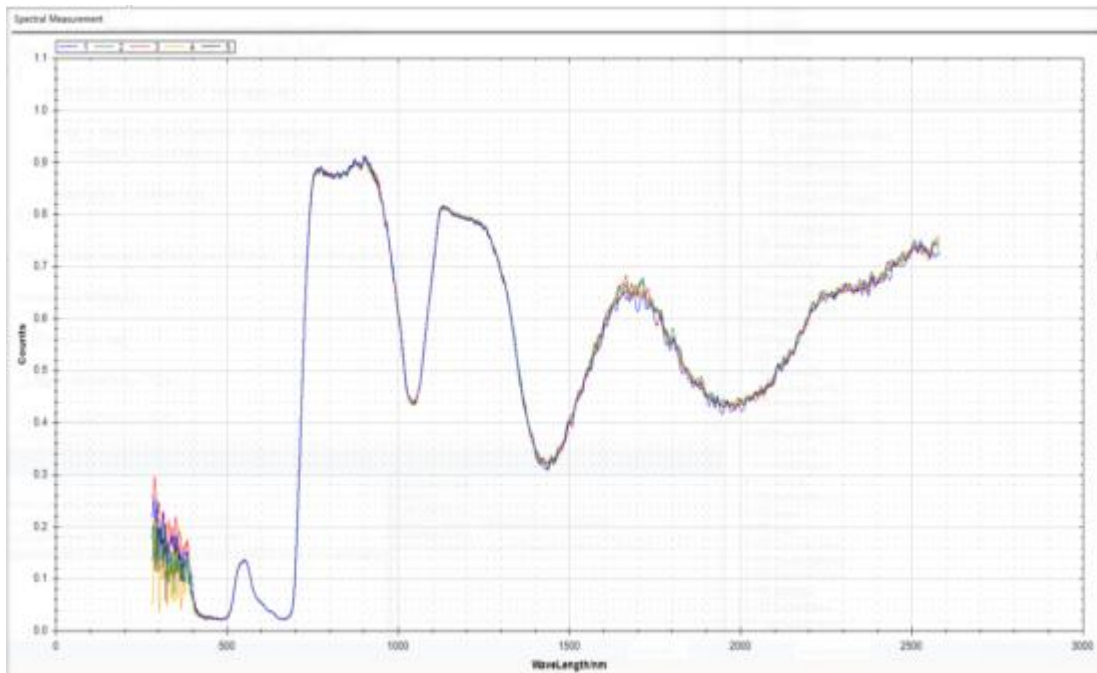


ATP9200 Captured Mercury-Argon Reference Spectrum

6. Application Scenarios And Measured Data



Halogen lamp spectrum measured by ATP9200 (simulated solar spectrum)



ATP9200 Measured Leaf Reflectance Spectrum (5 Repeated Measurements)