

## (0.9-4.0 $\mu\text{m}$ ) ultra-wide range scanning grating spectrometer series (infrared)

# ATP7500

### Features

- Ultra-wide band range, up to 4.0 $\mu\text{m}$ ;
- High signal-to-noise ratio, high dynamic range;
- TEC deep cooling detector, no need to add liquid nitrogen;
- Built-in chopper and filter (if required);
- Various types of detectors are available
- Adopt rotating concave grating design;
- The internal structure is all automatically controlled by the computer, and one-click spectrum formation;
- 15-pin extension interface, external trigger signal;

### Application

- Fluorescence Spectroscopy
- Photoluminescence Spectroscopy
- Absorption, reflection, transmission spectra
- Surface Spectrum

### Description

ATP7500 is a spectrometer developed by Optosky with 20 years of experience in spectrometer development. After 5 years of research and development, it has launched a wide-band range and high-resolution spectrometer. ATP7500 uses a reflective concave grating, which is convenient and quick to replace. The grating tower wheel is rotated by software control. Scanning, outputting light of different wavelengths, can precisely position the grating and test wavelength.

The ATP7500 system utilizes a simulation-optimized optical system to ensure high resolution. The ATP7500 series has a variety of input and output options, providing researchers with endless possibilities, scalability and diversity. Both single-point detectors and various array cameras can be used.

ATP7500 has two models with different wavelength ranges: 0.8~2.5 $\mu\text{m}$ , 1.0~4.0 $\mu\text{m}$ , which can cover the range from ultraviolet to mid-to-far infrared. You only need to choose the appropriate grating to have a better choice in wavelength and resolution. Multiple degrees of freedom.

ATP7500 can receive SMA905 optical fiber input light or free space light, and output the measured spectral data through USB2.0 or UART port.



## 1. Performance

Model	Spectral range	Best resolution/nm	Fastest scoring time	Detector Cooling
ATP7500-26	0.8~2.6 $\mu$ m	1	3.0s	Yes, -30°C
ATP7500-40	1.0~4.0 $\mu$ m	2	4.3s	Yes, -30°C
Other wavelength ranges can be customized				

	ATP7500-26	ATP7500-36
Optical parameters		
Detector type	Refrigerated detector, the cooling temperature can be as low as -30°C	
Maximum Spectral Range	0.8~2.6 $\mu$ m	1.0~4.0 $\mu$ m
Best optical resolution/nm	1	2
Maximum number of bands	5000	10000
Optical path topology	Holographic concave grating	
Entrance slit width	50 $\mu$ m, optional 5, 10, 25, 50, 100, 150, 200 $\mu$ m	
Incident light interface	SMA905 fiber optic interface or free space	
Data output interface	USB 2.0	
ADC bit depth	24bit	
Power supply	12VDC $\pm$ 5%	
Maximum working current	<3.3A	
Operating temperature	-20°C~+45°C	
Storage temperature	-30°C~+70°C	
Maximum working humidity	< 90%RH (no condensation)	
Physical parameters		
Size/mm	280X272.5X153	
Weight	8000 $\pm$ 200g	