

(0.9-25.0 μm) ultra-wide range infrared grating spectrometer series

ATP7810

Features

- Ultra-wide band range, up to 25.0 μm ;
- 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;
- A variety of accessories are optional;

Application

- Absorption, reflection, transmission spectra
- Surface Spectrum
- IR

Description

ATP7810 is Optosky's 20 years of spectrometer development experience. After 5 years of research and development, it launched a wide-band range and high-resolution spectrometer. ATP7810 rotates the grating through software control and performs wavelength scanning to obtain high-precision spectral measurement results.

The ATP7810 system utilizes a simulation-optimized optical system to ensure high resolution. The ATP7810 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.

ATP7810 has a variety of models with different wavelength ranges: 0.8~2.5 μm , 1.0~6.0 μm , 1.0~9.0 μm , 1.0~12.0 μm , 1.0~25.0 μm , which can cover the range from near-infrared to mid-to-far infrared, just choose the right one. The grating can have more freedom in the choice of wavelength and resolution.



1. Performance

Model	Spectral range	Best resolution/nm	Fastest scoring time	Detector Cooling
ATP7810-25	0.8~2.5μm	5nm	3.0s	Yes, -30°C
ATP7810-60	1.0~6.0μm	9nm	4.3s	Yes, -30°C
ATP7810-90	1.0~9.0μm	13nm	13s	Yes, -30°C
ATP7810-120	1.0~12.0μm	13nm	15s	Yes, -30°C
ATP7810-260	1.0~26.0μm	23nm	22s	Yes, -30°C

Note:

1. Other wavelength ranges can be customized

2. The parameters in the table only represent the test results under the standard configuration; if there are other parameter requirements, Optosky can provide customization.

	ATP7810-25	ATP7810-60	ATP7810-90	ATP7810-120
Optical parameters				
Detector type	Refrigerated detector, the cooling temperature can be as low as -30°C			
Maximum Spectral Range	0.8~2.5μm	1.0~6.0μm	1.0~9.0μm	1.0~12.0μm
Best optical resolution/nm	5	9	13nm	13nm
Maximum number of bands	5000	10000	15000	15000
Optical path topology	Rotate Scan Raster			
Entrance slit width	50μm, optional 5, 10, 25, 50, 100, 150, 200 μm			
Incident light interface	SMA905 fiber optic interface or free space			
Data output interface	USB 2.0			
ADC bit depth	24bit			
Power supply	12VDC±5%			
Maximum working current	<3.3A			
Operating temperature	-20°C~+45°C			
Storage temperature	-30°C~+70°C			
Maximum working	< 90%RH (no condensation)			

Product data information is current as of publication data. Products conform to specifications per the terms of Optosky Standard warranty.

humidity	
Physical parameters	
Size/mm	139x102x88
Weight	1200±200g
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