

IR Grating Spectrometer

ATP7810

Features

- Ultra-wide band range, 0.8 to 25 μ m
- Five different wavelength ranges are optional, 0.8~2.5 μ m 、 1.0~6.0 μ m 、 1.0~9.0 μ m 、 1.0~12.0 μ m 、 1.0~25.0 μ m
- High signal-to-noise ratio, high dynamic range
- TEC deep cooling detector, no need to add liquid nitrogen
- Different resolutions and sensitivities can be set
- Built-in chopper and filter (if required)
- ADC bit depth: 24 bits
- Adopt rotating concave grating design
- Data output interface: USB2.0 and UART
- 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 has 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 can receive SMA905 fiber input light or free space light, and output the measured spectral data through USB2.0 or UART port.

ATP7810 only needs a +12V DC power supply, which is very convenient to use. All controls can be electronically controlled by software.



1. Performance

	ATP7810-25	ATP7810-60	ATP7810-90	ATP7810-120	ATP7810-260
Light parameters					
Explore Detector type	System Cold type detector, the cooling temperature can be as low as -30°C				
Most large spectral range	0.8~2.5μm	1.0~6.0μm	1.0~9.0μm	1.0~12.0 μm	1.0~26.0 μm
Most best optical resolution Rate/nm	5	9	13nm	13nm	23nm
Most Large number of bands	5000	10000	15000	15000	25000
Light road topology	Spinto scan raster				
Enter Shooting slit width	50μm, Optional 5, 10. 25. 50、 100, 150、 200μm				
Enter Optical interface	SMA905 Fiber optic interface or free space				
Number Data output interface	USB2.0				
ADC bit depth	24bit				
Power supply source	12 VDC± 5%				
Most Large working current	<3.3A				
Hold operating temperature	-20°C ~+45°C				
Live storage temperature	-30°C ~+70°C				
Most Maximum working humidity	<90%RH(no condensation)				
Physical parameters number					
Ruler inch/mm	169x112×88				
Weight	1200±200g				
Note: 1.Other wavelength ranges can be determined system 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.					

2. Selection table

Model	Light spectral range	Most best resolution/nm	MostFast Spectrum Time	Explore Detector Refrigeration	
ATP7810-25	0.8~2.5μm	5	3.0 s	Yes ,-30°C	
ATP7810-60	1.0~6.0μm	9	4.3 s	Yes ,-30°C	
ATP7810-90	1.0~9.0μm	13nm	13s	Yes ,-30°C	
ATP7810-120	1.0~12.0 μm	13nm	15s	Yes ,-40°C	
ATP7810-260	1.0~26.0 μm	23nm	22 s	Yes ,-30°C	
<p>Note:</p> <p>1. Other wavelength ranges are available system</p> <p>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.</p>					

3. Picture of ATP7810



