

MIR Spectrophotometer

IR3000

Features

- Ultra-high stability
- Automatic triple cuvette holder
- Ultra-low stray light
- Long-life xenon lamp
- Simple, intuitive interface
- USB data output
- Three-color status light

Application

- Research institutes
- Biological sciences
- Medical analysis
- Agriculture and food testing
- Environmental science
- Water quality analysis
- Metallurgy industry

Description

The IR3000 mid-infrared spectrophotometer employs a cooled linear array infrared detector and superior optical path design. Its built-in real-time reference spectrum monitoring system ensures the instrument achieves both high precision and reliability simultaneously.

The IR3000 is equipped with a USB data output interface, allowing it to connect to a computer for easier data processing. The IR3000TP variant features a 10-inch high-definition screen that displays data and graphs directly on the device without needing a connection, enabling users to quickly review detection results.

The IR3000 uses a long-life infrared spectrum that provides strong energy, stable intensity, and a lifespan of up to 5000 hours.

It includes built-in 1.0mm and 5.0mm test range modes that switch automatically or can be freely selected via software, and it also supports automatic testing of reference spectra.

The innovative design of the IR3000 mid-infrared spectrophotometer includes indicator lights that intuitively show the instrument's operating status, making it easy for users to understand and proceed with the next steps.



1. Parameter

Table 2 IR3000 performance parameters

Feature	IR3000-30	IR3000-50
Wavelength Range	1.0 ~ 3.0 μ m	1.5 ~ 5.0 μ m
Optical System	Automatic reference spectrum testing	
Sample Cell Channels	3 channels, automatic switching	
Measurement Path Length	1.0 mm and 5.0 mm	
Spectral Bandwidth	15 nm	25 nm
Wavelength Accuracy	± 3 nm	
Wavelength Repeatability	<1.0 nm	
Transmittance Accuracy	$\pm 0.8\%$ (0-100%) $\pm 0.02\%$ (00.5A) $\pm 0.03\%$ (0.5A1A)	
Transmittance Repeatability	$\pm 0.5\%$ (0-100%) $\pm 0.01\%$ (00.5A) $\pm 0.015\%$ (0.5A1A)	
Stray Light	$\leq 0.07\%$	
Stability	0.005A/h (after warm-up, 1550nm)	
Photometric Methods	Transmittance, Absorbance, Concentration, Energy	
Wavelength Adjustment	Automatic scanning	
Photometric Range	-3~3A	
Detector	PbS	PbSe
Light Source	Imported infrared light source	
External Interface	USB2.0	
Power Supply and Consumption	AC110~240V, 100W	
Dimensions (cm)	35.5 $\times$ 25.6 $\times$ 18.5	
Weight	12 Kg	12.5 Kg

2. Naming rules and purchasing guide

Table 1 IR3000 product selection table

Model	Features
IR3000-30	Wavelength range: 1.0 ~ 3.0nm
IR3000-50	Wavelength range: 1.5 ~ 5.0nm
IR3000TP	Includes a 10.1-inch touchscreen, built-in operating system, and 32GB storage

Note:

*1: Wavelength range can be customized

*2: The optimal resolution is related to the slit width of the spectrometer; if the slit width is further reduced, the resolution can be further improved;

*3: The parameters in the table only represent the parameters of the company's standard products; Aopu Tiancheng instruments are all independently developed and produced products, and the corresponding parameters can be customized;

Ordering Guide:

Naming example:

- IR3000: USB interface can be operated online, UV refrigeration detector, equipped with breathing light
- IR3000TP: Added Android system touch screen (10.1 inches) and 32G storage space, making it easier for customers to operate

3. Appearance

