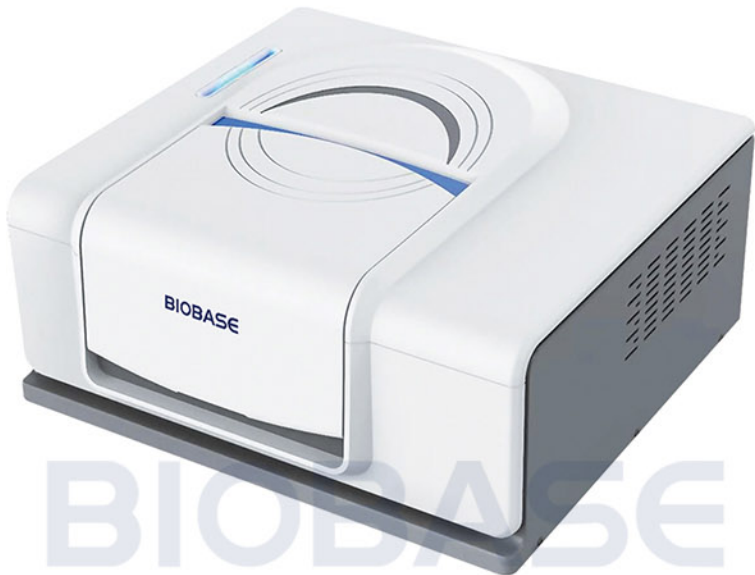


FT-IR Spectrometer



Introduction:

Fourier Transform Infrared (FT-IR) Spectrometer is a precision analytical instrument used for identifying and analyzing the molecular structure of substances. Compared to traditional dispersive infrared spectrometers, FT-IR offers significant advantages including faster scanning speed, higher sensitivity, better resolution, and greater wavelength accuracy. These models obtain the best balance between intelligence and convenient operation, advance performance and low operation and maintenance cost. It is a good choice for basic science research analysis, production quality control, testing and detection in various fields.

Features:

- * High sensitivity optical system: Cube-corner Michelson interferometer combined with patented fixing mirror alignment technology, reflecting mirrors are coated with gold to provide the maximum light throughput and ensure the detection sensitivity.
- * High stability modular partition design: compact structure modular design with layout on cast aluminum base and overall balance of mechanical robustness and partition heat dissipation, offering higher ability of deformation resistance and less sensitive to vibrations and thermal variations.
- * Intelligent multi-sealed moisture-proof design: multiple sealed interferometers, large-capacity desiccant cartridge with visible window and easy replacement structure.
- * Innovated integration electronic system: high sensitivity pyroelectric detector pre-amplifier technology, dynamic gain amplification technology, high precision 24-bit A/D conversion technology.

- * Good anti-electromagnetic interference capability: electronic system is designed to meet CE and electromagnetic compatibility requirements.
- * High intensity IR source: external isolated IR source module and large space heat dissipation chamber design provide higher thermal stability and stable optical interference.

Technical Parameters:

Model	BKFT-530A	BKFT-530APro
Detector	LiTaO ₃	DLATGS
Signal to Noise Ratio	Better than 20,000:1 (RMS value, at 2100cm ⁻¹ ~2200cm ⁻¹ , resolution: 4cm ⁻¹ , 1 minute data collection)	Better than 40,000:1 (RMS value, at 2100cm ⁻¹ ~2200cm ⁻¹ , resolution: 4cm ⁻¹ , 1 minute data collection)
Interferometer	Cube-corner Michelson interferometer	
Beam Splitter	Multilayer Ge coated KBr	
IR Source	High intensity, long lifetime, air-cooled IR source	
Wavenumber Range	7800cm ⁻¹ ~350cm ⁻¹	
Resolution	0.85cm ⁻¹	
Wavenumber Accuracy	±0.01cm ⁻¹	
Scanning Speed	Microprocessor control, different scanning speed selectable.	
Software	Main FTOS Suite software workstation, compatible to all version Windows OS. FDA 21 CFR Part11 compliance software (optional)	
Interface	Ethernet & WIFI wireless	
Data Output	Standard data format, report generation and output	
Status Diagnosis	Power on self-check, real-time temperature and humidity monitoring and reminders	
Environment Conditions	Temperature: 10℃~30℃, Humidity: less than 60%	
Standard Accessories	Transmission sample holder	
Optional Accessories	Gas cell, liquid cell, defused/specular reflection, single/multiple reflection ATR, IR microscope, electronic moisture proof box. etc. Among them, the electronic moisture proof box is mandatory optional part	
Power	80W	
Power Supply	AC110V-220V, 50/60Hz	
External Size(W*D*H)	490*420*240mm	
Net Weight	23.2kg	
Packing Size(W*D*H)	Main unit: wooden type 750*630*630mm; carton type 680*580*630mm Electronic moisture proof box: wooden type 930*810*640mm; carton type 850*730*500mm	
Gross Weight	Main unit: wooden type 50kg; carton type 33kg Electronic moisture proof box: wooden type 60kg; carton type 33kg	