

INFRA-3000 Series

INFRA FTIR SPECTROMETER



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► Features

- **High sensitivity optical system:**
cube-corner Michelson interferometer combined with patented fixing mirror alignment technology (fixing mirror alignment assembly), to ensure long term stability, without the need of dynamic alignment which needs extra complicated electronic circuits. 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, greatly improves the mechanical stability and long term working stability of the instrument.
- **Intelligent multi-sealed moisture-proof design:**
multiple sealed interferometer, large-capacity desiccant cartridge with visible window and easy replacement structure, real-time monitoring of temperature and humidity inside the interferometer, getting rid of influences of high temperature, high humidity and chemical corruptions to the optical system in many ways.
- **Innovated integration electronic system:**
high sensitivity integrated DLATGS detector pre-amplifier technology, dynamic gain amplification technology, high precision 24-bit A/D conversion technology, real-time control and data processing technology, digital filter and network communication technology, ensuring high quality real-time data collection and high-speed transmission.
- **Good anti-electromagnetic interference capability:**
The electronic system is designed to meet CE certification and electromagnetic compatibility requirements, minimizing electromagnetic radiation in design and technology, in line with green instrument designing concept.
- **High intensity IR source assembly:**
High intensity, long lifetime IR source module, with the highest energy distributed in fingerprint region, adopts a reflex sphere design to obtain even and stable IR radiation. External isolated IR source module and large space heat dissipation chamber design provide higher thermal stability and stable optical interference.
- The sampling compartment, reserving accessory mounting holes on the base plate, is wide enough for various accessories such as Diffused/Specular Reflection, ATR, Liquid cell, Gas cell, and IR microscope etc.

►► Specifications:

Model	3000A (Standard)	3000B	3000C	3000D	3000E	3000F
Interferometer	Cube-corner Michelson interferometer	Michelson interferometer	Michelson interferometer	Michelson interferometer	Michelson interferometer	Michelson interferometer
Beam splitter	Multilayer Ge coated KBr	KBr	KBr	KBr	ZnSe	KBr
Detector	Room temperature DLATGS module (standard)	DLATGS (DTGS Optional)	DLATGS (DTGS Optional)	DTGS	DTGS	DLATGS (DTGS Optional)
IR Source	High intensity, long lifetime, air-cooled IR source	Ceramic Light Source	Ceramic Light Source(Mid)	Mid IR Source	Mid IR Source	Ceramic Light Source(Mid)
Wavenumber Range	7800cm ⁻¹ ~350cm ⁻¹	350 to 7800	375 to 7500	450 to 8000	600 to 6000	350 to 8000
Resolution	0.85 cm ⁻¹	0.25/0.5/0.85	0.5	0.9	2	0.07
Signal to noise ratio	Better than 20,000:1 (RMS value, at 2100cm ⁻¹ ~ 2000cm ⁻¹ or 2100cm ⁻¹ ~ 2200cm ⁻¹ , resolution: 4cm ⁻¹ , detector: DLATGS, 1 minute data collection)	50000 : 1 or More	30000 : 1 or More	45000 : 1 or More	30000 : 1 or More	55000 : 1 or More
Wavenumber Accuracy	±0.01 cm ⁻¹	0.01	0.05	0.1	0.05	0.05
Scanning Speed	Microprocessor control, different scanning speed selectable.	Automatic	Automatic	Manual	Manual	Automatic
Software	MainFTOS Suite software workstation, compatible to all version Windows OS	Windows based IR software	Windows based IR software	Windows based IR software	Windows based IR software	Windows based IR software
Communication	Ethernet interface (standard)	USB,ETHERNET,RS232	USB,ETHERNET,RS232	USB,ETHERNET	USB,ETHERNET	USB,ETHERNET,RS232
Data Output	Standard data format, report generation and output	Standard	Standard	Standard	Standard	Standard
Status Diagnosis	Power on self check, real-time temperature and humidity monitoring and reminders	Standard	Standard	Standard	Standard	Standard
Certification	Certification	CE	CE	CE	CE	CE
Environment Conditions	Temperature: 10°C~30°C humidity: less than 70%	10 to 40 humidity: 70%	20 to 45 humidity: 65%	10 to 45 humidity: 85%	0 to 45 humidity: 90%	20 to 45 humidity: 65%
Power Supply	AC220V±22V, 50Hz±1Hz	AC220V±22V, 50Hz±1Hz	AC220V±22V, 50Hz±1Hz	AC220V±22V, 50Hz±1Hz	AC220V±22V, 50Hz±1Hz	AC220V±22V, 50Hz±1Hz
Dimensions & Weight	520 x 435 x 255mm, 24kg	540x520x260,28kg	540x520x260,28kg	540x520x260,28kg	540x520x260,28kg	540x520x260,28kg
Accessories	Transmission sample holder (Standard)	Standard Accessories Sadler Drug Library	Standard Accessories Any 3 Libraries	Standard Accessories	Standard Accessories	Standard Accessories Surfactants Library
Atr Crystal	Standard	Diamond	ZnSe Mirror Coating:Aluminium	Standard	Diamond	ZnSe Mirror Coating:Gold

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical
Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

Reach us @



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