DW-FTIR-530Pro FT-IR SPECTROMETER

Based on more than thirty years' experience in FTIR R&D and manufacturing, DRAWELL has launched a new type FTIR Spectrometer DW-FTIR-530Pro with fully independent intellectual property rights. Adhering to consistent excellent quality and superior performance, the new model obtains 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.
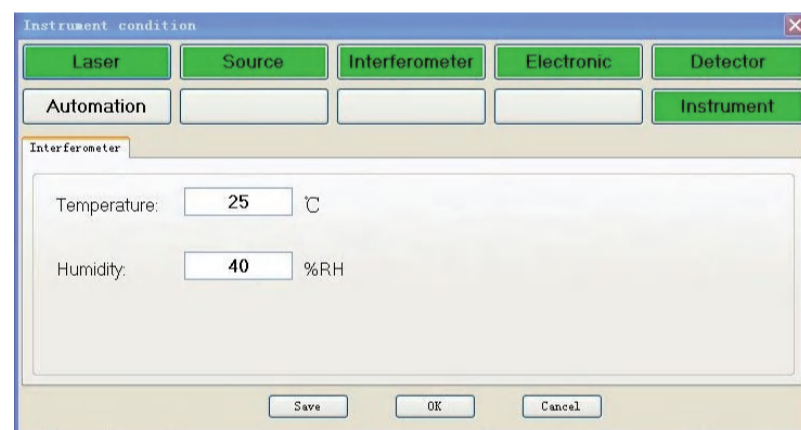
◆ High sensitivity and stability

◆ Intelligent real-time monitoring of instrument status

◆ Multiple interfaces

◆ Flexible and convenient testing

◆ Powerful software workstation

Innovations

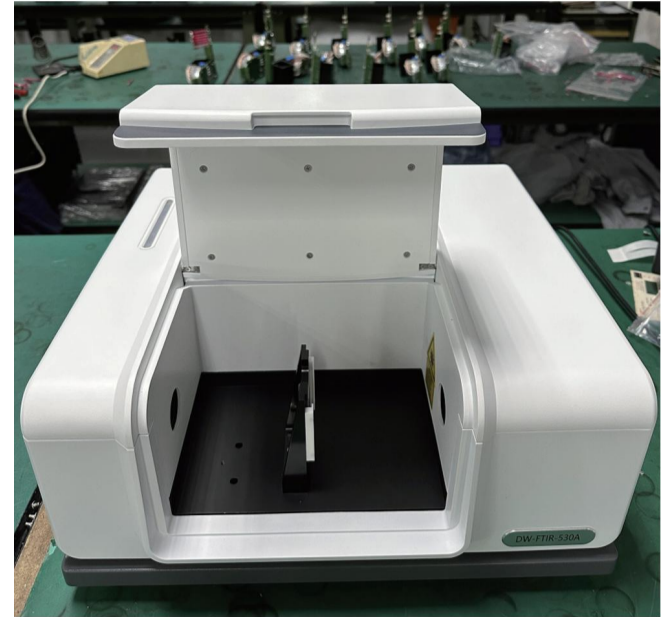■ Real-time diagnosis of instrument status:
Real-time monitoring of instrument working status, performance and communication status.

■ Multiples detector options. Besides conventional normal temperature pyroelectric detectors, temperature-stabilized pyroelectric detectors and semiconductor refrigeration MCT detectors can also be selected to meet the needs of different customers.

■ "Wire + Wireless" multi-communication mode. Adopting Ethernet and WIFI dual-mode communication to adapt the development trend of "Internet + testing" instruments. Building a basic platform for users to conduct interconnection testing, remote operation and maintenance, data cloud computing, etc.

■ Large sample room. With the large sample chamber design, besides the conventional liquid pool, ATR and other 、commercially available conventional accessories, it can also be equipped with special accessories such as thermal red combination, microscope, etc. At the same time, it also reserves space for users to choose new accessories

Main FTOS Suite Software Workstation

All versions Windows OS compatible, including
Windows XP, Windows 7, Windows 8, Windows 8.1 and Windows 10 (32 bits and 64 bits)
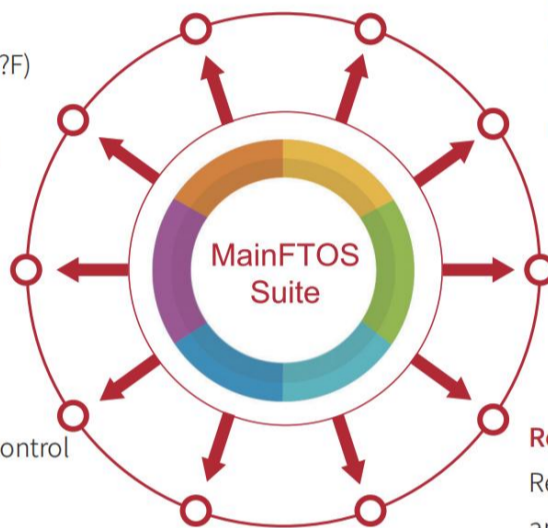
Standard data format
IEEE Floating Point Standard (*.A?F)
IUJPAC JCAMTP-DX (*.dx)
Thermo Scientific OMNIC (*.spa)

Language switch over
between Chinese and English

Touch control operation
Satisfying Windows 10's touch control function

Specialized IR libraries
Providing various specialized IR libraries.

Modular platform design
With data collection, processing and analysis, report print out functions，and different special software functional module options

FDA CER 21 PART 11 Compliance
With functions as access control, authority assignment, audit trial, digital signature etc. meet GLP/GMP and CFDA <The Computerized System> requirements

Autmatic software updating
Getting the latest software version from the updating center
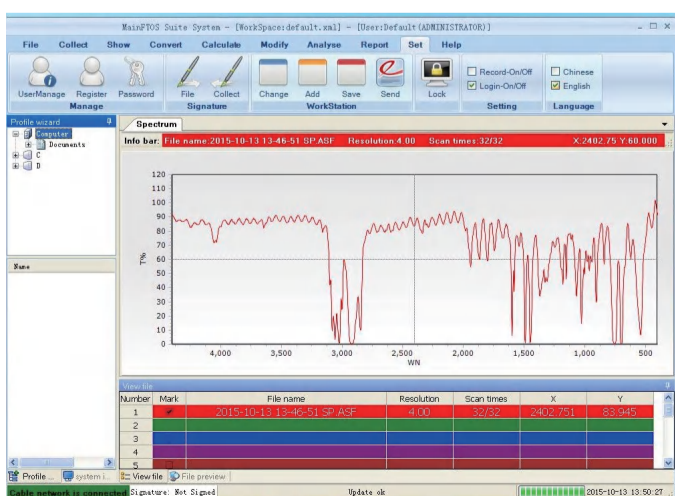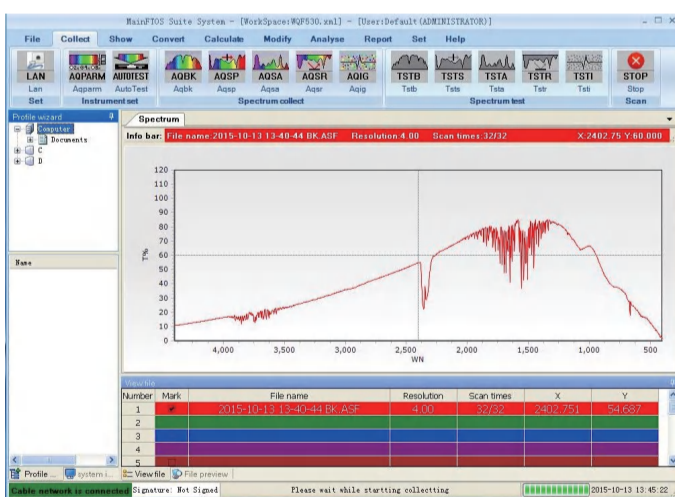
Real-time instrument status diagosis
Real-time monitor of working status, specifications and communication status

Secondary development library
Providing C++ and C# development sample code for different application development

MainFTOS Suite

Features

1. **High sensitivity optical system:** cube-corner Michelson interferometer combined with patented fixing mirror alignment technology（Utility model ZL 2013 2 0099730.2：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.

2. **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.

3. **Intelligent multi-sealed moisture-proof design:** multiple sealed interferometers, 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 corrosions to the optical system in many ways.

4. **Innovated integration electronic system:** high sensitivity pyroelectric 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.

5. **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.

5. **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.

Specifications

Interferometer	**Cube-corner Michelson interferometer**
Beam splitter	**Multilayer Ge coated KBr**
Detector	**DLATGS; MCT detector (optional)**
IR Source	**High intensity, long lifetime, air-cooled IR source**
Wavenumber Range	**7800cm-1~350cm-1**
Resolution	**0.85 cm-1**
Signal to noise ratio	**Better than 40,000:1 (RMS value, at 2100cm-1 ~ 2200cm-1, resolution: 4cm-1, 1 minute data collection)**
Wavenumber Accuracy	**±0.01 cm-1**
Scanning Speed	**Microprocessor control, different scanning speed selectable.**
Software	**MainFTOS Suite software workstation, compatible to all version Windows OS**
Optional Software	**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**
Certification	**CE IQ/OQ/PQ (optional)**
Environment Conditions	**Temperature: 10℃～30℃, humidity: less than 60%**
Power Supply	**AC220V/±22V, 50Hz/±1Hz AC110V,60Hz (optional,free)**
Dimensions & Weight	**490×420×240 mm, 23.2kg**
Standard Accessories	**Transmission sample holder**
Optional Accessories	**Such as gas cell, liquid cell, Defused/Specular Reflection, single/multiple reflection ATR, IR Microscope etc.**