

FT/IR-4000/6000 Series

FT-IR Spectrometers

Model FT/IR-4600/4700

FT-IR Spectrometer

Model FT/IR-6600/6700/6800

FT-IR Spectrometer

Tentative



Jasco

Total solutions to address a variety of applications

Advanced FT-IR Solutions

Based on over fifty years of experience in infrared spectroscopy and the most advanced technology, JASCO offers the best solutions for FT-IR analyses with a complete range of application-focused FT-IR spectrometers and sampling accessories as well as a dedicated instrument control and data analysis interface. The NEW FT/IR-4000 and 6000 Series FT-IR Spectrometers provide capabilities from education and routine analysis to high-end research applications, featuring high quality, performance and reliability. They are also designed with flexibility and expandability in mind to meet with a wide range of expanding application requirements.

- Excellent signal-to-noise ratio
- A full range of sampling accessories
- IQ accessory recognition
- Vibration-proof optical bench
- Large sample compartment
- Auto-alignment
- Purgeable optics
- Highly sensitive detector
- Applicable to FT-IR microscopy and IR Imaging
- Rapid scan option
- Wavenumber extension option
- Vibrational CD (VCD) option

FT/IR-4000 Series



The most complete selection of FT-IR capability from education and routine analysis to high performance research systems with standard automatic validation

FT/IR-4600

Maximum resolution: 0.7 cm^{-1}
S/N ratio: 25,000:1

FT/IR-4700

Maximum resolution: 0.4 cm^{-1}
S/N ratio: 35,000:1

FT/IR-6000 Series



Designed for a wide range of critical research and development applications such as wavenumber extension measurement using with automatic beam splitter switching unit, step scan option or full-vacuum option.

FT/IR-6600

Maximum resolution: 0.4 cm^{-1}
S/N ratio: 45,000:1

FT/IR-6700

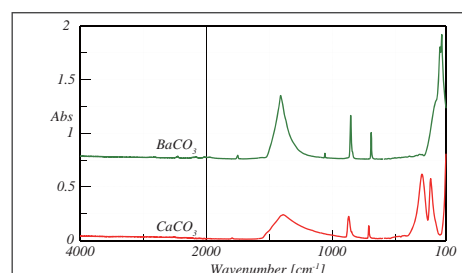
Maximum resolution: 0.25 cm^{-1}
S/N ratio: 47,000:1

FT/IR-6800

Maximum resolution: 0.07 cm^{-1}
S/N ratio: 55,000:1
Rapid scan as standard
Au-coated mirrors for higher throughput
FT-Raman option

Automatic broadband measurement under vacuum condition

Combining automatic beam splitter switching unit and automatic window switching unit/automatic gate valve unit allows to measure broadband range without breaking vacuum condition. The spectra shows to measure carbonate samples by ATR PRO ONE with broadband diamond crystal under vacuum condition.



Simple and Easy-to-Use Operations

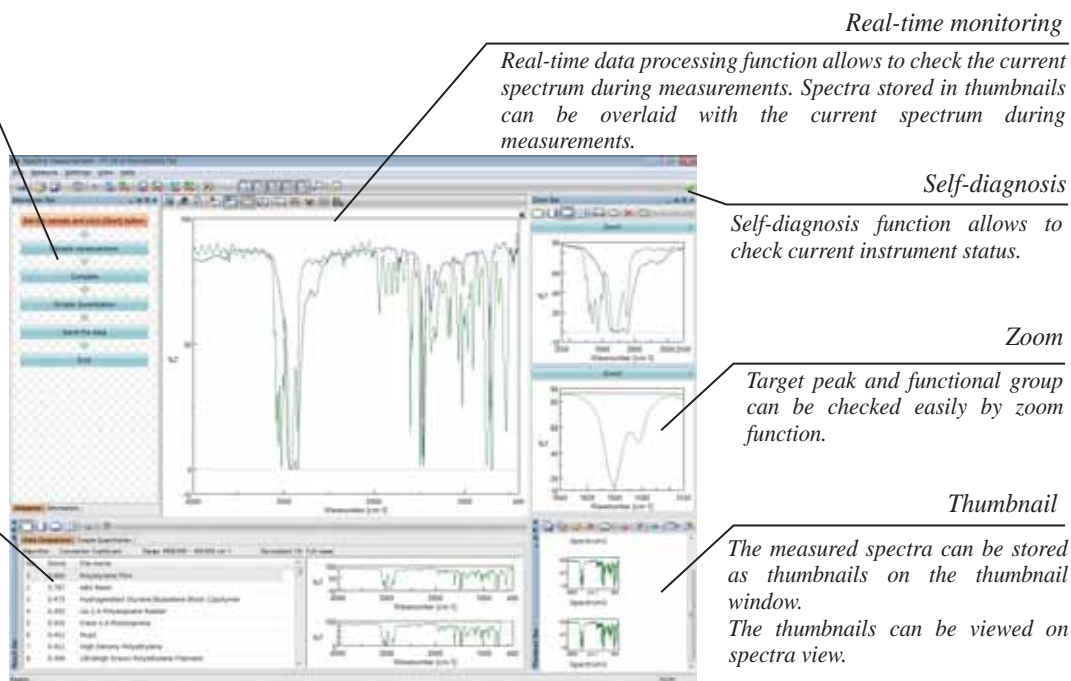
The FT/IR-4000/6000 Series is controlled by JASCO's proprietary Spectra Manager™ II cross-platform software. The Spectra Manager has various functions such as spectra measurement, quick start, spectra comparison and quantification. Measurement screen can be customized according to the requirements and such customized screen and parameters can be saved (User switching function).

Sequence

Information such as instrument status, measurement parameters and sequence of data acquisition etc. is displayed.

Results display

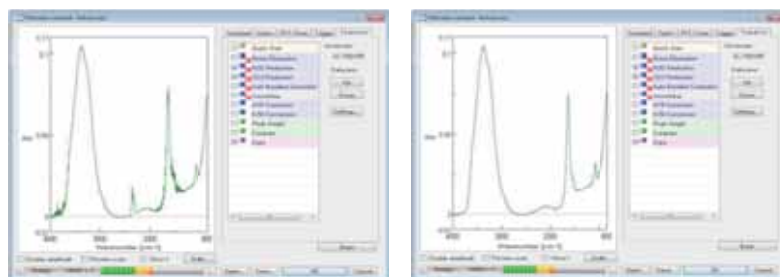
Acquisition results such as spectra comparison and quantification etc. are displayed.



Advanced Measurement Screen of Spectra Manager II

Real-time data processing

Before start of measurement, data processing procedure can be determined by checking the results of real-time data processing in preview window.



Before data processing

After data processing
(CO₂ reduction and H₂O correction)

High-throughput Single Reflection ATR **NEW**



ATR PRO ONE Single-reflection ATR Accessory

The New ATR PRO ONE is a single reflection ATR accessory optimized using with a newly designed monolithic diamond crystal and provides drastically high optical throughput. A "torque-limiter" pressure applicator providing reproducible sample pressure contact allows excellent reproducibility in measurements.

- Two types of diamond crystal kit
 - High-throughput model optimized mid-IR measurement
 - Broadband model capable for measuring Far-IR range
- Available ZnSe or Ge crystal kit

Specifications

Model:	FT/IR-4600	FT/IR-4700	FT/IR-6600	FT/IR-6700	FT/IR-6800	
Standard wavenumber measurement range:	7,800 to 350 cm^{-1}					
Optional extended wavenumber range:	15,000 to 2,200 cm^{-1} , 5,000 to 220 cm^{-1}		25,000 to 10 cm^{-1}			
Display wavenumber range:	15,000 to 0 cm^{-1} (standard), 25,000 to 0 cm^{-1} (optional)					
Wavenumber accuracy:	Within $\pm 0.01 \text{ cm}^{-1}$ (theoretical value)					
Maximum resolution:	0.7 cm^{-1}	0.4 cm^{-1}	0.4 cm^{-1} 0.07 cm^{-1} (optional)	0.25 cm^{-1} 0.07 cm^{-1} (optional)	0.07 cm^{-1}	
Optical system:	Single beam					
Sample chamber:	Size: 200 mm (W) \times 260 mm (D) \times 185 mm Optical path: Center focus, light axis 70 mm high					
Interferometer:	Configuration:	45° Michelson interferometer Corner cube mirror interferometer, with auto-alignment mechanism, sealed structure, DSP control		28° Michelson interferometer Corner cube mirror interferometer, with auto-alignment mechanism, sealed structure, DSP control		
	Vacuum instrument:	—		Options available		
	Mirror coating:	Aluminum			Gold	
	Drive method:	Mechanical bearing, electromagnetic drive				
	Drive speed:	AUTO, 1, 2, 3, 4 mm/sec AUTO DLATGS 2.0 mm/sec. MCT (optional) 4.0 mm/sec.		0.5, 1, 2, 3, 4, 5, 6, 7, 8 mm/sec AUTO DLATGS 2.0 mm/sec. MCT (optional) 4.0 mm/sec.	0.5, 1, 2, 3, 4, 5, 6, 7, 8 mm/sec AUTO DLATGS 2.0 mm/sec. MCT (optional) 4.0 mm/sec.	0.125, 0.25, 0.5, 1, 2, 3, 4, 5, 6, 7, 8 mm/sec AUTO DLATGS 2.0 mm/sec. MCT (optional) 4.0 mm/sec.
Rapid scan:	10 Hz (optional)		20 Hz (optional)		20 Hz (standard)	
Beam splitter:	Substrate material:	Standard: Ge/KBr Option: Si/CaF ₂ , Ge/CsI (not interchangeable)		Standard: Ge/KBr Option: Quartz, Si/CaF ₂ , Ge/CsI, Mylar (interchangeable)		
	Replacement method:	—		Secure-lock beamsplitter catch system (Option: Automatic beam splitter switching unit)		
Light source:	Standard: High-intensity ceramic source Option: Halogen lamp (factory option only)		Standard: High-intensity ceramic source Option: Halogen lamp, water-cooled mercury light source Up to three light sources may be installed simultaneously including external light sources.			
Detector:	DLATGS (with Peltier temperature control) (standard)					
	W-MCT, M-MCT, N-MCT, Si, InSb, InGaAs (optional) Two detectors may be mounted simultaneously within the instrument.		W-MCT, M-MCT, N-MCT, Si, InSb, InGaAs, PAS, Si bolometer (optional) Two detectors may be mounted simultaneously within the instrument. Up to two external detectors may be installed.			
Purging:	Interferometer, Sample compartment/Detector					
Signal-to-noise ratio: (4 cm^{-1} , 1 min, near 2,200 cm^{-1})	25,000:1	35,000:1	45,000:1	47,000:1	55,000:1	
Gain switching:	AUTO, 1, 2, 4, 8, 16, 32, 64, 128					
100%T line flatness:	Within $100 \pm 1.0\%T$ (4,000 to 700 cm^{-1} , continuous repetitive measurement)					
Communication:	USB2.0					
FTIR main unit:	Dimensions: 460 (W) \times 645 (D) \times 290 (H) mm Weight: 33 kg		Dimensions: 600 (W) \times 670 (D) \times 315 (H) mm Weight: 56 kg			
Power supply unit:	Dimensions: 200 (W) \times 285 (D) \times 90 (H) mm, Weight: 4.7 kg This unit can be placed on its base or on its side.					

Standard Composition

Parts name	Number	Remarks
Power supply	1	
Connecting cable	1	Cable for connecting the main unit to the power supply
AC cable	1	AC cable for the power supply
USB cable	1	Cable connecting the main unit to the PC
Sample holder	1	
Standard sample	1	Polystyrene film
Stepped pin	2	Used when installing optional accessories into the sample compartment.
Instruction manual	1	
Install Disk	1	Including Spectra Manager™ II, QAU-4000 Quantitative program and KnowItAll JASCO Edition
Fuse	2	

* CFR Model does not include QAU-4000.

* LE or LE-CFR Models does not include QAU-4000 and KnowItAll JASCO Edition.



JASCO INTERNATIONAL CO., LTD.

4-21, Sennin-cho 2-chome, Hachioji, Tokyo 193-0835, Japan
Tel: +81-42-666-1322 Fax: +81-42-665-6512 <http://www.jascoinc.co.jp/english/>
Australia, China, Hong Kong, India, Indonesia, Korea, Malaysia, New Zealand, Pakistan, Philippines, Russia, Singapore, Taiwan, Thailand

JASCO INCORPORATED

28600 Mary's Court, Easton, MD 21601, U.S.A.
Tel: +1-800-333-5272 +1-410-822-1220 Fax: +1-410-822-7526 <http://www.jascoinc.com>
U.S.A., Canada, Costa Rica, Mexico, Puerto Rico, Argentina, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay, Guatemala

JASCO EUROPE s.r.l.

Via Luigi Cadorna 1, 23894 Cremella (Lc), Italy
Tel: +39-039-9215811 Fax: +39-039-9215835 <http://www.jasco-europe.com>
JASCO Deutschland www.jasco.de, JASCO UK www.jasco.co.uk,
JASCO France www.jascofrance.fr, JASCO Benelux www.jasco.nl,
JASCO Spain www.jasco-spain.com
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For more information, please contact:



Products described herein are designed and manufactured by ISO-certified JASCO Corporation.

MADE IN TOKYO, JAPAN