

Fourier Transform Infrared Spectrometers

FT/IR-6000 Series



The new FT/IR-6000 series from JASCO offers advanced capabilities for high performance, research grade FT-IR. The 6000 series attains the highest performance level in its class with exceptional signal to noise ratio (SNR) specifications. All models in the series are designed with flexibility and expandability in mind making them suitable for a wide range of research applications allowing extended measurement from Near to Far-IR regions. The new JASCO FT/IR-6000 Series consists of three distinct models, FT/IR-6100, FT/IR-6200 and FT/IR-6300. A rapid scan function is an option for the FT/IR-6100 and FT/IR-6200 and provided as a standard feature for the FT/IR-6300. In addition, a step-scan interferometer, IR microscope or IR imaging and a full vacuum capability are upgrade options available for all models. The FT/IR-6300 is equipped with gold optical surfaces for the highest sensitivity in the series. The FT/IR-6000 Series is controlled by JASCO's exclusive Spectra Manager™ II cross-platform software. This enables the instruments to be operated with other complimentary spectroscopic techniques and provides complete 21 CFR Part 11 compliance using Spectra Manager™ CFR.

- Auto-alignment
- Excellent sensitivity
- Quick start system
- IQ accessory recognition
- Purgeable optics
- Expandable wave number range
- Applicable to FT-IR microscopy and IR imaging
- Step scan capability (optional)
- Full vacuum system (optional)
- FT-Raman (FT/IR-6300)

SPECIFICATIONS

| | | FT/IR-6100 | FT/IR-6200 | FT/IR-6300 |
|-------------------------------|---------------------|--|---------------------------|--|
| Measurement wavenumber range: | | 7,800 to 350 cm ⁻¹ | | |
| Extended wavenumber range: | | 15,000 to 20 cm ⁻¹ | | |
| Display wavenumber range: | | 15,000 to 0 cm ⁻¹ | | |
| Wavenumber accuracy: | | Within ± 0.01 cm ⁻¹ (theoretical value) | | |
| Resolution | | 0.5 cm ⁻¹ | 0.25 cm ⁻¹ | 0.07 cm ⁻¹ |
| Optical system: | | Single beam | | |
| Sample chamber | | Size: 200 mm (W) × 260 mm (D) × 185 mm (H) Optical path: Center focus, light axis 70 mm high | | |
| Interferometer | Configuration: | 28° Michelson interferometer Corner cube mirror interferometer, with auto-alignment mechanism, sealed structure, DSP control | | |
| | Sealing method: | Vacuum (optional) | | |
| | Mirror coating: | Aluminum | | Gold |
| | Drive method: | Mechanical bearing, electromagnetic drive | | |
| | Drive speed: | 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, | 0.125, 0.25, 0.5, 1, 2, 3, 4, 5, 6, 7, |
| Beam splitter | Rapid scan: | 20 Hz (optional) | | 20 Hz (standard) |
| | Substrate material: | Ge/KBr (standard) Si/CaF ₂ , Ge/CsI, Mylar (optional) | | |
| | Replacement method: | Secure-lock beamsplitter catch system | | |
| Light source: | | High-intensity ceramic source (standard) Halogen lamp, water-cooled mercury light source (optional) | | |
| Detector: | | DLATGS (with temperature regulator) (standard) W-MCT, M-MCT, N-MCT, Si, InSb, InGaAs, PAS, Si bolometer (optional) Two detectors may be mounted at any one time. | | |
| Purging: | | Interferometer, Sample compartment/Detector | | |
| Signal-to-noise ratio: | | 42,000:1 (4 cm ⁻¹ , 1 min, near 2,200 cm ⁻¹) | 45,000:1 | 50,000:1 |
| Gain switching: | | AUTO, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512 | | |
| 100%T line flatness: | | Within 100 ± 1.0%T (4,000 to 700 cm ⁻¹ , continuous repetitive measurement) | | |
| Communication | | USB2.0 | | |
| FTIR main unit | | Dimensions: 600 (W) × 670 (D) × 315 (H) mm Weight: 56 kg | | |
| Power supply unit | | Dimensions: 200 (W) × 285 (D) × 90 (H) mm Weight: 4.7 kg | | |

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. |
| Purge tube | 1 | Used for supplying purge gas. |
| Instruction manual | 1 | |
| Back-up installation disk | 1 | |
| Fuse | 2 | |



● Specifications are subject to change without notice.

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