

FT/IR-6X

Fourier Transform Infrared Spectrometer



Specifications

[Hardware]

Measurement wavenumber range: 7800 to 350 cm^{-1}

Measurement wavenumber extended range ^{*1} (optional): 25000 to 20 cm^{-1}

Resolution: 0.25, 0.5, 1.0, 2, 4, 8, 16 cm^{-1}

Signal-to-noise ratio ^{*2}: 47000 : 1

Detector:

Standard: DLATGS (with peltier temperature control)

Optional: MCT-N, MCT-M, MCT-W, MCT-PV, Si photodiode (visible, near IR), InSb, InGaAs, DLATGS (PE window), Broad band DLATGS, Si bolometer, DLATGS (for micro measurement)

Up to 2 detectors can be mounted inside the main unit, and the external detector unit should be applied if more than 3 detectors are used (PC switching). There are some limited detectors for mounting inside the main unit, and up to 2 detectors can be mounted to external detector unit.

Beam splitter:

Standard: Ge/KBr

Optional: Broad band Quartz, Si/CaF₂, Broad band KBr, Broad band mylar, Mid-far IR broad band, (exchangeable, optional automatic beam splitter changer is available)

Light source:

Standard: High-intensity ceramic source

Optional: Halogen lamp (PC switching)

Interferometer:

28 degrees Michelson interferometer with corner-cube mirror, sealed structure (KRS-5 window, optional window is also available), auto-alignment mechanism, DSP control, aluminum mirror coating

Sampling signal laser

Diode laser
He-Ne laser (optional)

Sealing

Vacuum (optional)

Purging:

Interferometer, sample/detector compartment

A/D converter:

24 bit A/D converter

Drive method:

Mechanical bearing, electromagnetic drive

Drive speed:

0.5, 1, 2, 3, 4, 6, 8 mm/sec.
Rapid scan: 32 mm/sec.

Rapid scan ^{*3} (optional):

40 spectra/sec. (16 cm^{-1} resolution)

Vibration-proof:

Vibration-proof design mounting

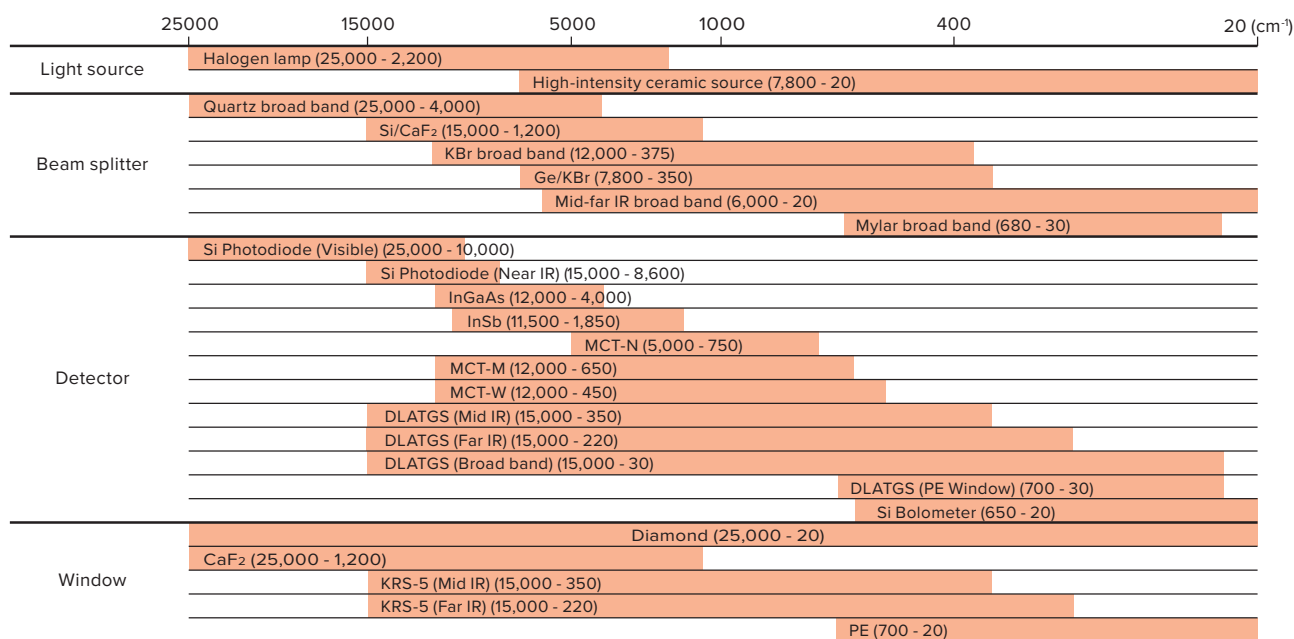
Dimensions and weight	FT/IR-6X purge model: 600 (W) × 690 (D) × 315 (H) mm, 56 kg FT/IR-6X V Interferometer vacuum model model: 600 (W) × 690 (D) × 315 (H) mm, 58 kg FT/IR-6X FV full vacuum model: 600 (W) × 700 (D) × 355 (H) mm, 70 kg
Required power	AC 100 to 240 V, 50/60 Hz, maximum 180 VA
Operation environment	Temperature: 17 to 27 °C / humidity: less than 70 %

[Data processing]

Software: JASCO Spectra Manager Ver.2.5 *4

Operating system: Windows 10 Pro (64-bit)

- *1 When extending the wavenumber region of FT/IR-6X to visible region (25000 to 11500cm⁻¹), He-Ne laser option as well as some optical element (light source, beam splitter, detector and window) is required.
- *2 Measurement condition: 4 cm⁻¹ resolution, 1 minute accumulation, near 2200 cm⁻¹, P-P
- *3 Performance of rapid scan function was evaluated when installing Ge/KBr beam splitter. MCT detector is required.
- *4 JASCO can provide Spectra Manager Ver.2.5 CFR which is compliant with FDA 21 CFR PART 11.



Available range of optical elements (FT/IR-6X)

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JASCO CORPORATION

2967-5, Ishikawa-machi, Hachioji-shi, Tokyo 192-8537 Japan

Tel: +81-42-649-5177 Fax: +81-42-646-4515

Web: www.jasco-global.com



Products described herein are designed and manufactured by ISO-9001 and ISO-14001 certified JASCO Corporation