

Irtron μ

Sample compartment microscope
for the FT/IR-4000/6000 Series



The Irtron μ sample compartment microscopy system is designed to provide affordable analysis of microscopic samples with the high performance features of an external FT-IR microscope accessory. The Irtron μ offers unprecedented convenience and ease of use, compatible with the JASCO FT/IR-4000 and 6000 series FT-IR instruments. The microscope accessory installs into the spectrometer sample compartment in seconds without optical alignment. The state-of-the-art optical design guarantees high throughput for highly sensitive measurements of samples approaching 20 microns. The Irtron μ can be operated with the integrated touch panel or via a PC using the Spectra Manager™ II software interface. The sample is observed with the integrated color CCD camera and a 5 inch TFT color LCD monitor. JASCO's unique ATOS (Aperture Through Optical System) provides simultaneous viewing of the sample image and sampling location specified by the aperture.

- Compact and easy-to-use microscopy system
- Transmittance, reflectance and ATR (option) measurement modes
- DLATGS, MCT or NIR optimized detector
- Unique SmartMonitor™ function allows sample observation while monitoring the spectrum
- Optional sampling accessories for liquid and powder samples

The JASCO logo is displayed in a stylized green font. A colorful wave graphic, transitioning from yellow to blue, curves under the letters 'SCO'.

Hardware Specifications

Measurement method	Transmission, reflection and ATR (option) modes
Sample observation	CCD camera (standard)
Objective mirror	8X cassegrain
Condenser mirror	8X cassegrain with transmission compensation
Objective selection	Manual exchange with no alignment required
Detector	Selection from available instrument detectors
Sample observation area	1.2 x 0.9 mm
Observation method (ATOS)	CCD camera, 5 inch LCD ATOS: Aperture Through Optical System
Minimum measurement area	20 μm^2 (MCT detector) 100 μm^2 (DLATGS detector)
Wavelength range	13,000 to 300 cm^{-1} (dependent upon FT-IR capabilities)
Sample stage	X, Y, Z manual stage
Aperture	Independent X and Y variable aperture
Purge	SmartPurge™ System (FT/IR-4000, 6000)
Sample illumination	Transmission/reflection (adjustable intensity)
Dimension	144 (W) x 312 (D) x 292 (H) mm
Weight	7 kg
Power requirements	DC12V 8W (110/220 V adapter included)

ATR objectives (optional)

Model name	ATR-1000-VZ	ATR-1000-VG	ATR-1000-VD
Wavenumber range (cm^{-1})	4000 to 650	4000 to 650	4000 to 300
Objective mirror	Angle of incidence	40 to 53°	
	Numerical aperture (NA)	0.8	
	Magnification	12X	
Prism	Material	ZnSe	Diamond
	Refractive index	2.4	4.0
	Sample area	250 μm diameter	
	Number of reflections	1	
Objective dimension	86 mm diam. x 49 mm thick		
Weight	Approximately 430 g		
Recommended pressure (using optional pressure sensor stage)	under 0.4		under 0.7



● Specifications are subject to change without notice.

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