

MSV-5700

UV/Vis/NIR Microscopic Spectrophotometer



Specifications

[Hardware]

| | |
|---------------------------|---|
| Optical system: | Single monochromator Czerny-Turner mount Double beam type |
| Light source: | Deuterium lamp, Halogen lamp |
| Option for light source: | 150 W Xenon lamp |
| Wavelength range: | 200 to 2700 nm |
| Wavelength accuracy: | ± 0.3 nm (656.1 nm) ± 1.5 nm (1312.2 nm) |
| Spectral bandwidth: | 0.1, 0.2, 0.5, 1, 2, 5, 10 nm (UV/Vis region) L2, L5, L10 nm (low stray light mode, UV/Vis region) 0.4, 0.8, 1, 2, 4, 8, 20, 40 nm (NIR region) L8, L20, L40 nm (low stray light mode, NIR region) |
| Scanning mode: | Continuous scanning or step scanning |
| Detector: | Photomultiplier tube, PbS photoconductive cell |
| Measurement mode: | Transmittance/reflectance |
| Sample observation: | High-resolution built-in CMOS camera (3 million pixels), optical zoom, ATOS (Aperture Through Optical System), LED illumination |
| Options for observation: | Binocular, polarization observation unit, objective lens (10x, 20x) |
| Objective Mirrors: | Cassegrain objective mirror (10x, 16x, 32x) Automatic 4-position motor-driven objective revolver switching Select one from 3 types of cassegrain mirror ^{*1} |
| Condensing Mirrors: | Cassegrain condensing mirror (10x, 16x, 32x) Manual replacement With automatic correction of condensing mirror position Select one from 3 types of cassegrain mirror ^{*1} |
| Aperture: | $\Phi 10, 20, 30, 50, 100, 200$ μm $10 \times 31.5, 10 \times 50, 10 \times 100, 31.5 \times 10, 50 \times 10, 100 \times 10$ μm (when 16x Cassegrain objective mirror is used) |
| Sample stage: | Manual stage |
| Moving distance: | X-axis: 75 mm / Y-axis: 50 mm / Z-axis: 20 mm ^{*2} |
| Options for sample stage: | Automatic XYZ Stage, joystick |
| Moving distance: | X-axis: 72 mm / Y-axis: 52 mm / Z-axis: 25 mm ^{*2} 1 μm interval each for X, Y, Z-axis |

| | |
|------------------------|---|
| Polarizer: | Glan-Taylor prism Automatic insertion/extraction to the light path, and automatic angular setting |
| Analyzer (option): | Glan-Taylor prism Automatic insertion/extraction to the light path, and automatic angular setting |
| Control panel: | Objective mirror (lens) switching, measurement mode switching (transmittance/reflectance), aperture switching, measurement start/stop, autofocus, auto-correction of transmittance focus, optical zoom, brightness control of observation light, sample compartment illumination (ON/OFF), ATOS Illumination (ON/OFF) |
| Dimensions and weight: | 740 (W) x 745 (D) x 630 (H) mm, approx. 111 kg |
| Power requirements: | AC100 to 240 V, 50/60Hz, 340 VA |

[Data processing]

Software: JASCO Spectra Manager Ver. 2

Operating system: Windows 10 Pro (64-bit)

Standard program

Measurement programs: [Microscopic Spectra Measurement] program, [Microscopic Fixed Wavelength Measurement] program, [Microscopic Time Course Measurement] program (single-point measurement, image acquisition)

Micro imaging analysis: Peak height, peak height ratio, peak area, peak area ratio, peak shift, full width at half maximum

Spectra analysis: Film thickness analysis, color analysis, arithmetic, X and Y unit conversion, derivatives, peak find, peak height/area, peak height/area ratio, full width at half maximum, Kramers-Kronig transformation, FFT filter

Other programs: [Validation] program (jigs are required), [JASCO Canvas] program (print layout tool), [Administrative Tools] program

Automatic XYZ stage operation: Stage movement, lattice measurement, line measurement, multiple-point measurement, fixed wavelength mapping measurement, autofocus, multiple image acquisition
(when mounting automatic XYZ stage)

Image display (mapping data): Color 3-D graph, bird's-eye view graph, contour map, color-coded map, 3-D spectrum graph, 2-D cross-sectional graph, RGB view, overlaying view

Optional program: [Multi Layer Analysis] program, [Color Diagnosis Analysis] program

*1. MSV-5500/5700/5800 includes cassegrain objective mirror and cassegrain condensing mirror, whose magnifications are same.

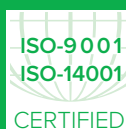
*2. The moving distance of the Z-axis is limited by the magnification of the objective/condensing mirror or lens, or sample thickness.

The contents of this brochure are for reference and illustrative purposes only. Information, descriptions, and specifications in this publication are subject to change without notice. JASCO assumes no responsibility and will not be liable for any errors or omissions contained herein or for incidental, consequential damages or losses in connection with the furnishing, performance or use of this material.



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.co.jp



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