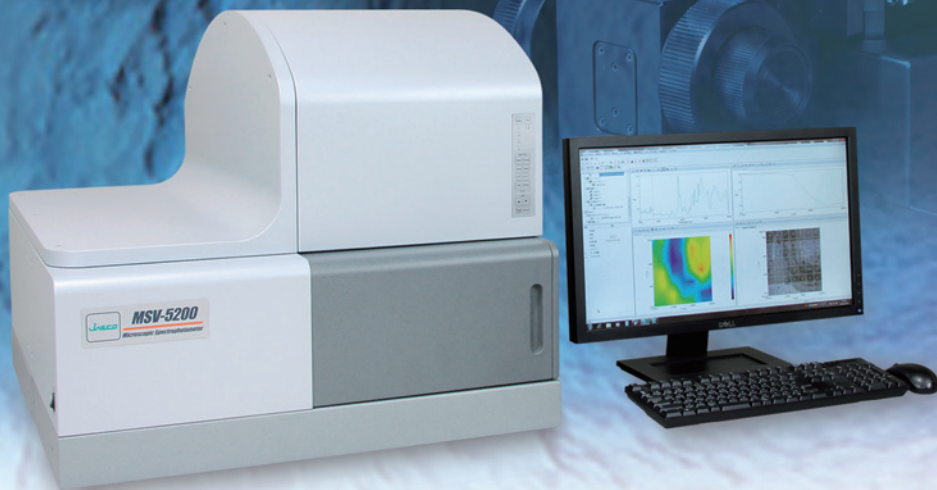




# Microscopic Spectrophotometer MSV-5000 Series



The MSV-5000 series is a microscopic spectrophotometer system providing transmittance/reflectance measurements of a microscopic sample area with a wide wavelength range from ultraviolet to near infrared. A broad range of applications including the collection of transmittance/reflectance spectra of a sample, measurement of the band gap and film thickness of semiconductors, evaluation of the optical characteristics of functional crystals and the color analysis of microscopic samples can be easily implemented using the MSV-5000 series.

## Wide spectral measurement range

The microscope system utilizes wide-band cassegrain objectives to provide transmittance/reflectance measurements continuously from 200 to 2700 nm (MSV-5200).

## Auto XYZ stage

The optional automated stage enhances the operation performance of the system especially for mapping and multi-point measurements.

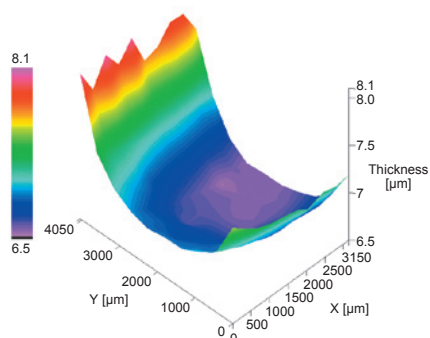
## Polarization measurement

An automated Glan-Taylor polarizer system (standard) provides polarization measurements in combination with the optional automated polarization analyzer.

## JASCO Spectra Manager™ II

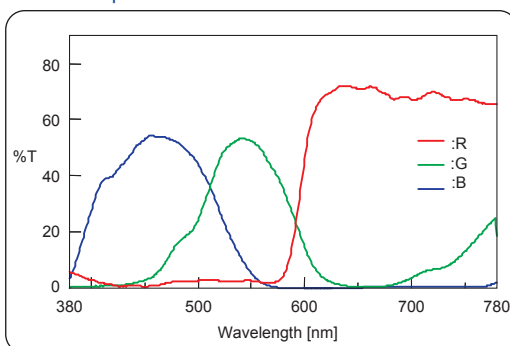
Spectra Manager™ II software, a cross-platform control and analysis package for all JASCO spectroscopic instruments, offers quick and easy data acquisition and analysis.

● Film thickness distribution of semiconductor detector protection layer



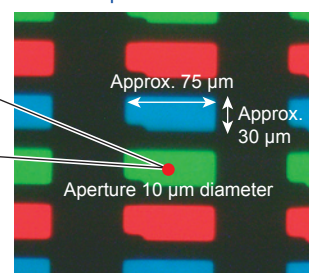
The film thickness distribution of semiconductor detector protection layer was calculated from interference wave shape in NIR region.

● Transmittance spectra of color filters for an LCD panel



A circular 10 µm aperture was applied for each subpixel of red, green and blue (R, G, B).

● Microscopic image of an LCD panel



## Specifications

Model:	MSV-5100	MSV-5200	MSV-5300
Optical system:	Double beam single monochromator Czerny-Turner mount		
Light source:	30W Deuterium lamp, 20W Halogen lamp		
Light source (option):	150W Xenon lamp (air-cooled)		
Wavelength range:	200 - 900 nm	200 - 2700 nm	200 - 1600 nm
Wavelength accuracy:	± 0.3 nm (656.1 nm)	± 0.3 nm (656.1 nm) ± 1.5 nm (1312.2 nm)	
Spectral bandwidth:	1, 2, 5, 10, L2, L5, L10 nm	1, 2, 5, 10, L2, L5, L10 nm (UV/Vis) 4, 8, 20, 40, L8, L20, L40 nm (NIR)	1, 2, 5, 10, L2, L5, L10 nm (UV/Vis) 2, 4, 10, 20, L4, L10, L20 nm (NIR)
Scan modes:	Continuous scan, step scan		
Detector:	PMT	PMT Peltier-cooled PbS	PMT Peltier-cooled InGaAs
Sample observation:	High resolution CMOS camera (1600 × 1200 pixel), optical zoom, ATOS feature, LED illumination		
Sample observation (option):	Binocular, polarized observation, objective lens		
Objective:	Cassegrain objective, ×10, ×16, ×32 selectable *1		
Condenser mirror:	Cassegrain collection mirror, ×10, ×16, ×32 user-interchangeable *1 (Automated condenser mirror compensation function)		
Aperture:	User-selectable dual-aperture settings for circular and rectangular (slit type) apertures 10, 20, 30, 50, 100, 200 μmφ (×16 objective) 5, 10, 15, 25, 50, 100 μmφ (×32 objective) 16, 32, 48, 80, 160, 320 μmφ (×10 objective)		
Sample stage:	Manual stage (working area: X 50 × Y 75 × Z 20 mm) *2		
Sample stage (option):	Auto stage (working area: X 76 × Y 52 × Z 25 mm, 1 μm step) *2, joystick (option)		
Polarizer:	Glan-Taylor, automatic insertion/angle setting		
Analyzer (option):	Glan-Taylor, automatic insertion/angle setting		
Control panel:	Cassegrain switching and indicator, transmittance/reflectance mode indicator, aperture selection, measurement start/stop, auto focus, automatic condenser mirror compensation, optical zoom, automated sample illumination, sample compartment illumination ON/OFF, ATOS illumination ON/OFF		
Dimensions:	700 (W) × 740 (D) × 640 (H) mm		
Weight:	105 kg		
Power requirement:	150 VA		
Software:	JASCO Spectra Manager™ II		
OS:	Windows7 Professional		
Program:	Microscope Measurement (multi-point measurement, line and lattice mapping), Micro Spectra Analysis, Spectra Analysis (data processing such as film thickness calculation, color calculation, peak detection, derivatives), Time-Course Measurement, Validation, JASCO Canvas, Administrative Tools		
Program (option) *3	Fixed wavelength mapping (line and lattice mode), auto focus, multi-image		

\*1. Cassegrain objective and cassegrain collection mirror are provided with the same magnification.

\*2. The moving distance of the condenser mirror and the objective magnification depends upon the sample.

\*3. Optional programs are provided when auto stage is selected.



● Specifications are subject to change without notice.

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