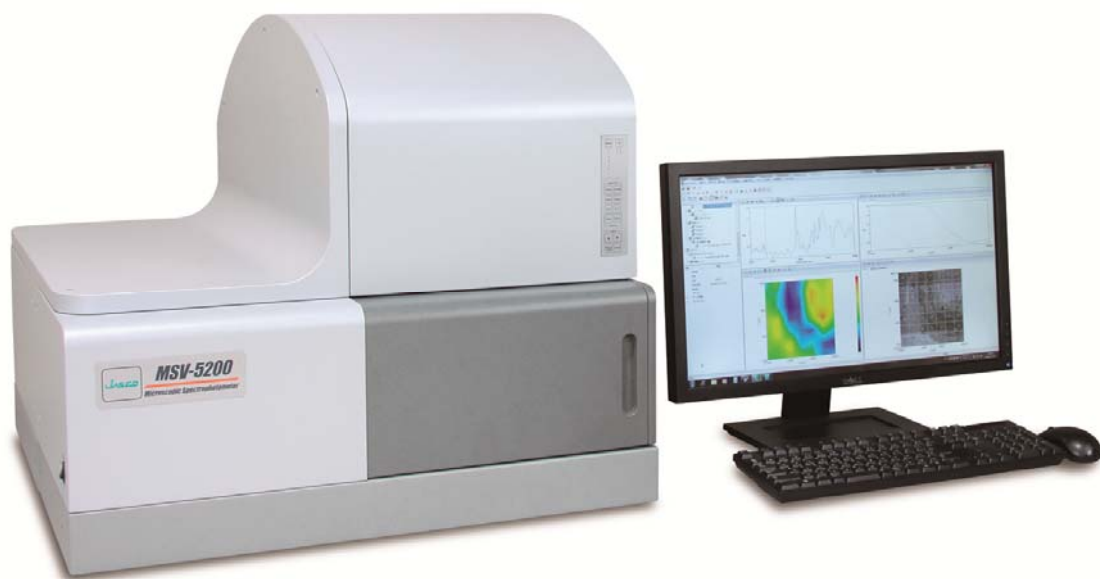




MSV-5000 Series UV/Vis/NIR Microscope System





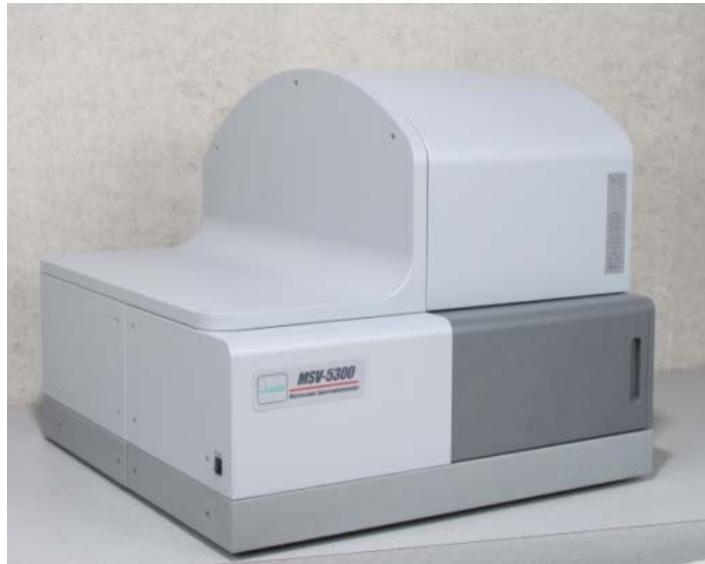
MSV-5100 / MSV-5200 / MSV-5300 UV/Vis/NIR Micro-spectrophotometer

The MSV-5000 series are UV/Vis/NIR microscopic spectrophotometer systems which can measure transmittance or reflectance of micro samples and points in a wide range from UV to NIR.

The MSV-5000 series incorporates a high performance UV-Vis/NIR spectrophotometer that can be applied to micro measurements and extended to materials analysis and many other application areas.



External View



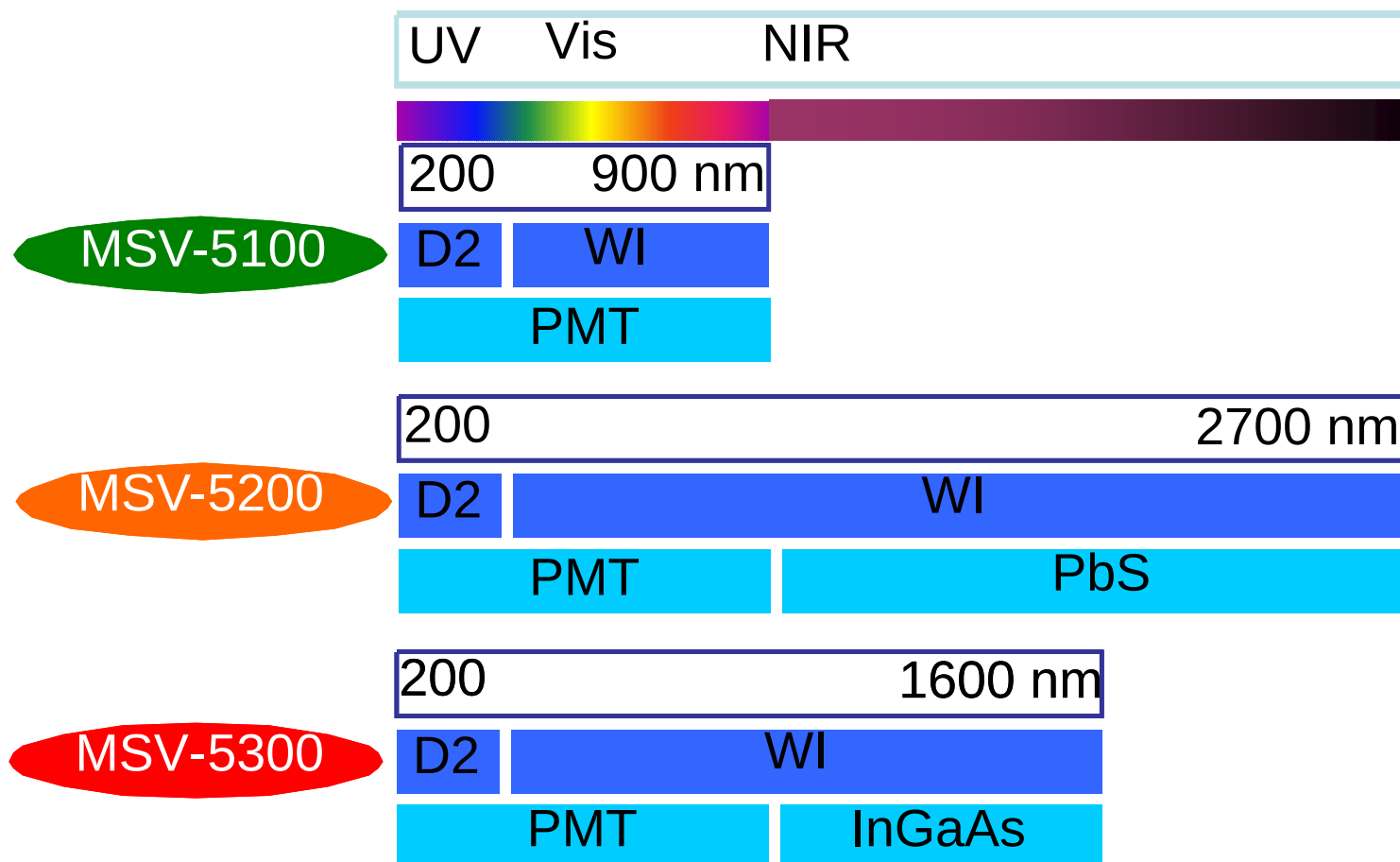
- Light shielding door (front and side, manual)
- Sample illumination
- Optional cassegrain selections
- Optional auto-stage

- Monochromator and microscope in one unit
- New design and color
- No dedicated table required
- USB communication (MSV-5000 and camera)





MSV Wavelength Ranges





Features

- Continuous spectral measurement in a wide range from UV to NIR, without changes in optical components
- High performance monochromator with high wavelength resolution and accuracy
- Excellent photometric stability using dual-beam optics
- Minimum measurement area of 10 μm
- Sample observation using a CMOS camera
- Polarization measurement function as standard
- Optional auto XYZ stage for Mapping and multi-point measurements
- JASCO Spectra Manager Version 2



Continuous Spectral Measurement



- Broad band monochromator
 - Automatic switching of light source, grating and detector
- Reflection optics with NO light losses
 - Cassegrain objectives and collection mirrors
 - Reference optical path with reflection optics
 - Double beam measurement for full wavelength range
- Measurement modes
 - Transmittance, reflectance, transmittance/reflectance



High Performance Monochromator

- Czerny-Turner mount single monochromator
- High wavelength resolution
 - 0.1 nm (Vis)
 - 0.4 nm (NIR)
- High wavelength accuracy
 - ± 0.3 nm (Vis)
 - ± 1.5 nm (NIR)



Excellent Photometric Stability

-
- Reflection optics for both sample and reference beam paths
 - Newly mounted attenuator
 - Expansion of wavelength range
 - Effective utilization of instrument dynamic range



Minimum Measurement Area

- Aperture: Selectable by switching
- Size (for 16X Cassegrain):
 - 10, 20, 30, 50, 100, 200 μm (circular apertures)
 - Slit type (adjustable aperture)



Sample Observation

- CMOS camera
- Optical and digital zoom functions
- Easy observation of microscopic measurement spot
- Binocular and visual polarizer options



Polarization Measurements

- Glan-Taylor prism
- Software control of polarizer insertion and angle
- Polarization measurement angle setting:
 - 0, 90, 45, 0 and 90 deg., arbitrary angle settings
- Optional analyzer



Optional Auto XYZ Stage

-
- Working range: 76 (X) x 52 (Y) x 20 (Z) mm
 - Minimum XYZ increment: 1 μm
 - Mapping measurements, line measurements, multi-point measurements
 - Microscopic fixed wavelength mapping measurements

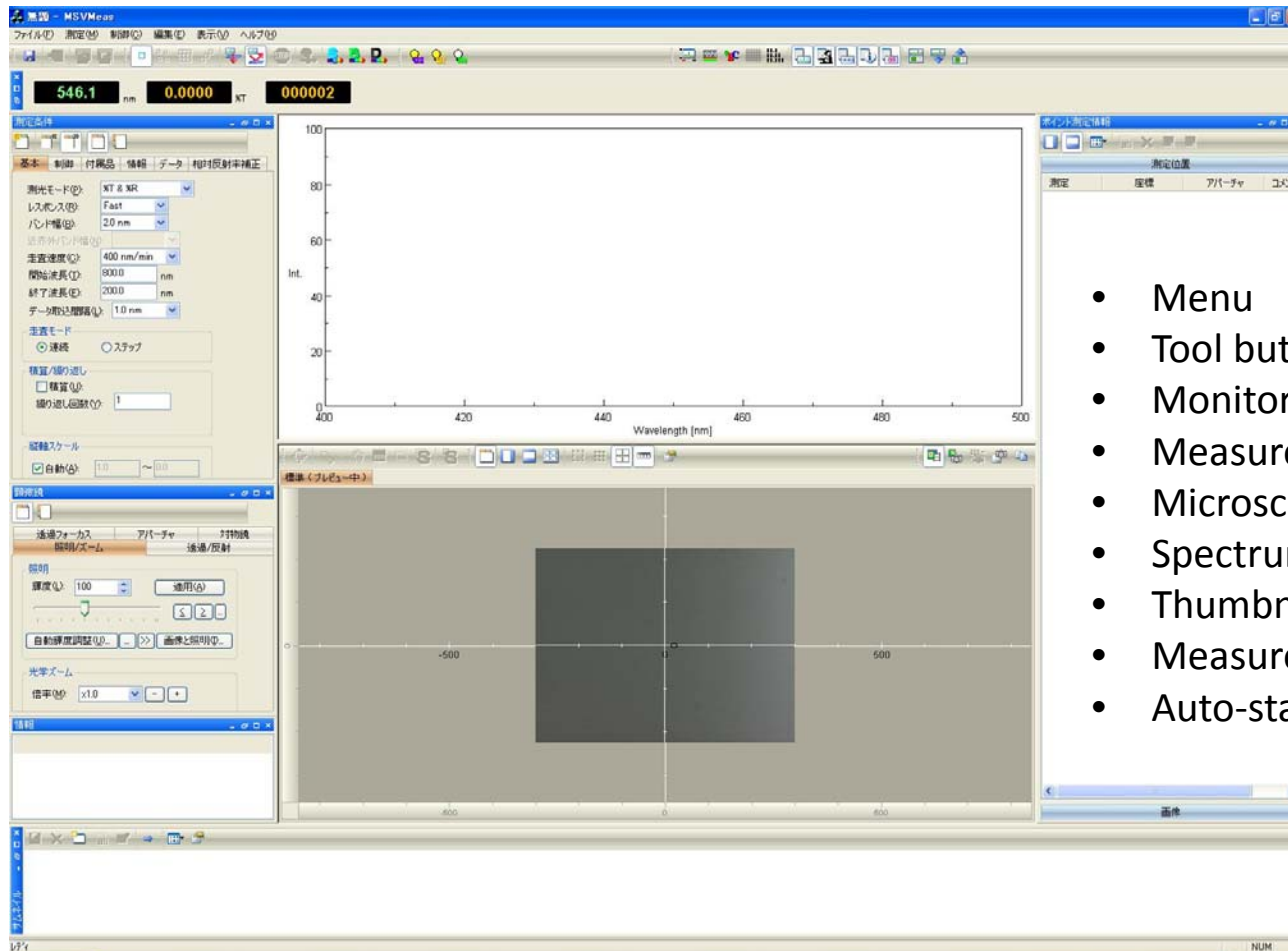


User-Friendly Spectra Manager II

- Microscopic measurement, microscopic time course measurement
- Microscopic analysis, spectrum analysis, common analysis functions
- Expanded functions with optional auto-stage
 - Mapping measurement, line measurement, multi-points measurements, microscopic fixed wavelength mapping measurements



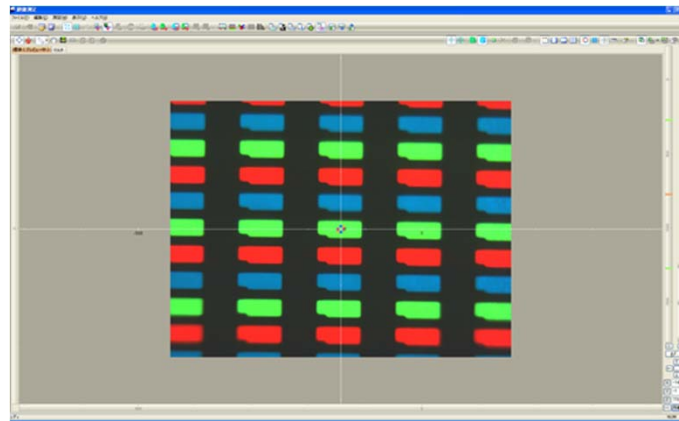
Microscopic Measurement Program



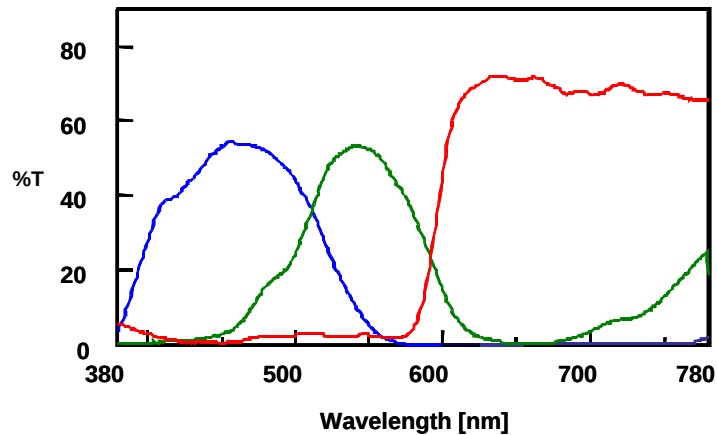
- Menu
- Tool button
- Monitor
- Measurement parameters
- Microscope settings
- Spectrum display
- Thumbnail (recorded video stills)
- Measurement information
- Auto-stage control, measurement



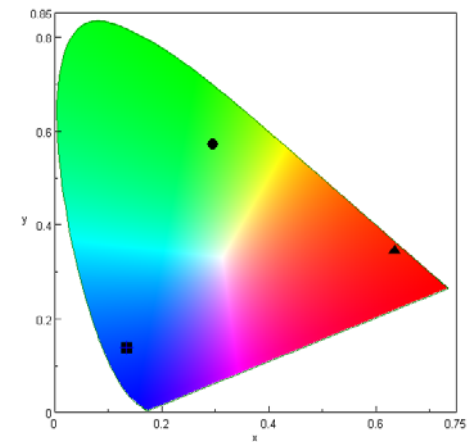
Transmittance Measurement of LCD Panel



Observation display of
color filter (75 x 30 μm)



Transmittance spectra (10 μm aperture)



Chromaticity Map



- Optical elements
 - Transmission characteristics of micro filters
 - Reflection characteristics of micro dichroic mirrors
- Semiconductors, electrical materials
 - Band-gap measurement of micro parts
 - Film thickness measurements
- Functional materials
 - Optical constants of a crystal
- Paintings
 - Spectroscopic evaluation of a paint sample
 - Spectroscopic determination of paintings