

# Spectrophotometer Specifications

Item	Description	
Setting wavelength range	190 ~ 1100nm	
Measurement wavelength range	190 ~ 900nm (up to 1100nm with special detector)	
Wavelength accuracy	±0.3nm with auto wavelength correction included	
Wavelength repeatability	±0.1nm	
Wavelength scanning speed	Wavelength slew rate: about 3200nm/min Wavelength scan rate: about 900 ~ 160nm/min Monitor scan rate: about 2500nm/min	
Wavelength setting	At 1nm units for scan start and scan end wavelengths, and 0.1nm units for other wavelengths	
Lamp interchange wavelength	Auto switching synchronized with wavelength, switching range selectable between 282 ~ 393nm (0.1nm units)	
Spectral bandwidth	6-step switching among 0.1/0.2/0.5/1/2/5nm	
Response	Optimum response speed automatically set depending on bandwidth, minimum 0.1sec	
Resolution	0.1nm	
Stray light	UV-2450	UV-2550
	Less than 0.015% (220nm, NaI 10g/L solution)	Less than 0.0003% (340nm, UV-39 filter)
	Less than 0.015%	Less than 0.0003%
Photometric system	Double-beam, direct-ratio system with dynode feedback	
Photometric modes	Absorbance (Abs.), transmittance (%), reflectance (%), energy (E)	
Photometric range	Absorbance: -4 ~ 5 Abs Transmittance, reflectance: 0.0 ~ 999.9%	
Recording range	Absorbance: -9.999 ~ 9.999 Abs Transmittance, reflectance: -999.9 ~ 999.9%	
Photometric accuracy	±0.002 Abs (0 ~ 0.5 Abs)	
	±0.004 Abs (0.5 ~ 1.0 Abs)	
	±0.3%T (0 ~ 100% T) filter	
	} Tested with NIST 930D standard	

Item	Description
Photometric repeatability	±0.001 Abs (0 ~ 0.5 Abs)
	±0.002 Abs (0.5 ~ 1.0 Abs)
	±0.1%T
Baseline flatness	±0.001 Abs (excluding noise, using 2nm slit, and slow wavelength scanning speed)
Baseline correction	Auto correction using PC (stored baseline is automatically loaded when power is switched on, re-correction is possible)
Drift	0.0004Abs/h (after power is on for 2 hours)
Temperature and humidity requirements	15 ~ 35°C, 45 ~ 80% (no condensation, less than 70% above 30°C)
Light source	50W halogen lamp (2,000 hours life), deuterium lamp (socket type), light source auto position adjustment built in
Monochromator	UV-2450
	Single monochromator, high-performance blazed holographic grating in aberration-corrected Czerny-Turner mounting
	UV-2550
	Grating/Grating type double monochromator, Pre-monochromator: double-blazed holographic grating Main monochromator: high-performance blazed holographic grating in aberration-corrected Czerny-Turner mounting
Detector	Photomultiplier R-928
Sample compartment	Internal dimensions: 150W x 260D x 120H (mm) Distance between light beams: 100mm Maximum light path length of cell: 100 mm
Power requirements	AC100, 120, 220, 240 V, switch selectable 50/60Hz; 250 VA
Dimensions	570W x 660D x 275H (mm)
Weight	About 36 kg

(PC and printer are not included.)

\* If the detector has been replaced with a near-infrared sensitive photomultiplier, the standard optical specifications of the above instrument will not be satisfied.

## Installation Area Plan (UV-2450/2550)

Additional adjacent space is also required for the PC and printer.

