UV-Vis-NIR Spectrometer

Manufacturer: Shimadzu

Model: UV-3600 UV-Vis-NIR Spectrophotometer with Double Beam, Three Detector System

Descriptions:

The UV-3600 UV-VIS-NIR Spectrophotometer combines research-grade UV-Vis or UV-Vis-NIR optical performance with the ease and familiarity of PC operation. It is designed for the measurement of liquid samples, the UV-3600 features three detectors and a high-performance double monochromator to ensure high sensitivity, reduced noise, and ultra-low stray light.

Features:

High Sensitivity - 3 Detector System

Equipped with 3 detectors: a PMT detector (photomultiplier tube) for the ultraviolet and visible regions, and InGaAs and PbS detectors for near infrared region. The InGaAs detector bridges the gap between the PMT - PbS switching wavelength where sensitivity is typically low to ensure high sensitivity over the entire measurement wavelength range. With <0.00003 Abs noise at 1500 nm, the world's lowest noise level is achieved.

High Resolution - Wide Measurement Range & Ultra-low Stray Light

With its high performance double monochromator, ultra-low stray light (0.00005% or less at 340 nm) is achieved at high resolution (highest resolution 0.1 nm). With a measurement wavelength range of 185 - 3300 nm, measurement is possible over a wide range including the ultraviolet, visible and near infrared regions. This allows spectroscopic analysis in a wide variety of fields.

Abundant Accessories for a Wide Variety of Applications

The multipurpose large-sample compartment and integrating sphere attachment enable measurement of solid samples, and with the guaranteed precision of the ASR Series (Absolute Specular Reflectance) attachments, high accuracy absolute reflectance measurements are possible. Various cell holders like the constant-temperature cell holder and ultra-micro cell holder can also be mounted to enable a wide range of measurement possibilities.

Transmission Spectrum of Water

UV-3600 demonstrates lower noise in NIR region by InGaAs detector.

Specifications:

Wavelength range	185nm - 3300nm
Spectral Bandwidth	8 steps in ultraviolet/visible region 0.1, 0.2, 0.5, 1, 2, 3, 5, 8 nm 10 steps in near-infrared region 0.2, 0.5, 1, 2, 3, 5, 8, 12, 20, 32 nm
Resolution	0.1 nm
Sampling Pitch	0.01 - 5 nm
Wavelength accuracy	UV/VIS region: ±0.2 nm NIR region: ±0. 8 nm
Wavelength repeatability	UV/VIS region: less than ±0.08 nm NIR region: less than ±0.32 nm
Stray light	< 0.00008% (220 nm, NaI) < 0.00005% (340 nm, NaNO2) < 0.0005% (1420 nm, H2O) < 0.005% (2365 nm, CHCl3)
Photometric range	-6 to 6 Abs
Noise	0.00005 Abs or less (500 nm), 0.00008 Abs or less (900 nm), 0.00003 Abs or less (1500 nm) Slit width 2nm, RMS value at 1 sec. response
Photometric System	Double beam
Dimensions	1020(W) x 660(D) x 275(H) mm