

Dual Beam Visible Spectrophotometer

UV3600

Features

- Measurement band: 175~3600 nm
- Ultra-low stray light optical path to achieve excellent test results
- Three detectors with extremely high sensitivity
- Integrating sphere, solid samples can also be measured
- Automatic six-way pool: 6 samples can be placed at a time
- 50W halogen lamp and deuterium lamp (socket type), easy to replace
- Simple and intuitive operation page
- High-speed data acquisition, accurate and rapid acquisition of a large amount of spectral data
- USB data output interface, can process data online
- Equipped with three-color breathing lights to visually display the status of the instrument
- Superior light concentrating system ensures high luminous flux, and low transmittance makes the results more accurate

Application

- Research institutes
- Biology
- Agriculture and Food Inspection

Description

UV3600 is an ultraviolet-visible-near-infrared spectrophotometer, which can continuously acquire spectral signals in the range of 175~3600nm.

It has three detectors: PMT, InGaAs, and PbS, respectively detecting 175~900nm, 900~1700nm, and 1700~3600nm to achieve the best sensitivity and signal-to-noise ratio. The UV3600 provides accurate transmittance or reflectance measurements in the UV to NIR region. By using InGaAs detectors and PbS detectors, the sensitivity level in the ultraviolet and near-infrared regions is extremely improved.

The instrument uses a high-power 50W halogen lamp and a deuterium lamp (socket type), which achieves excellent measurement results and is easy to replace.

Wavelength scanning speed of UV3600: ultraviolet and visible region: about 4500nm/min, PMT/InGaAs region: about 9000nm/min, near-infrared PbS region: about 4000nm/min. (except the time required for various switching)



1. Performance

Model	UV3600	UV3600-TP
Wavelength range	175~3600nm (below 185nm needs nitrogen purging)	
Optical system	Double beam	
Number of channels in the sample cell	6 channels, automatic switching	
Spectral bandwidth	UV visible region: 0.01 ~ 5nm, 0.01nm interval automatic adjustment	
	Near-infrared region: 0.04~20nm, automatic adjustment at intervals of 0.01nm	
Wavelength accuracy	Ultraviolet, visible region: $\pm 0.08\text{nm}$ Near infrared region: $\pm 0.4\text{nm}$	
Wavelength repeatability	Ultraviolet and visible region: within $\pm 0.08\text{nm}$ Near infrared region: within $\pm 0.32\text{nm}$	
Transmittance accuracy	$\pm 0.3\%$ (0-100%)	
	$\pm 0.002\%$ (0~0.5A)	
	$\pm 0.003\%$ (0.5A~1A)	
Transmittance repeatability	$\pm 0.15\%$ (0-100%)	
	$\pm 0.001\%$ (0~0.5A)	
	$\pm 0.0015\%$ (0.5A~1A)	
Stray light	Below 0.00008%T (220nm, NaI 10g/L solution)	
	Below 0.00005%T (340nm, NaNO ₂)	
	Below 0.0005%T (1420nm, water)	
	Below 0.005%T (2365nm, chloroform)	
Stability	Less than 0.0002Abs/h (2 hours after power on, 500nm)	
Metering method	Absorbance (Abs), Transmittance (%), Reflectance, Energy (E)	
Wavelength adjustment	Auto scan	
Baseline straightness	$\pm 0.004\text{Abs}$ (185-200nm)	

	±0.001Abs (200-3000nm)	
	±0.005Abs (3000-3300nm)	
Photometric range	8 Abs	
Detector	PMT, InGaAs, PbS	
Detect light source	50W halogen lamp and deuterium lamp (socket type)	
Monitor	none	10.1 inch capacitive touch screen
Built-in storage	none	32GB storage, can store 1 million spectra
External Interface	USB2.0	USB2.0, LAN, WIFI
Power supply and power consumption	AC110~240V, 100W	
Volume	68.5x 38.5x22.5 cm ³	
Weight	26kg	28 kg

2. Purchase Guide

Model	Does it have a touch screen?
UV3600	no
UV3600-TP	yes, with10.1inch touch screen, built-in operating system, large capacity32Gstorage

Note:

*1: The wavelength range can be customized

*2: The optimal resolution is related to the slit width of the spectrometer; if the slit width is further reduced, the resolution can be further improved;

*3: In the table parameters, only the parameters of the company's standard products are indicated; Optosky instruments are all self-developed and produced products, and the corresponding parameters can be customized;

Order Guide:

Naming example:

UV3600: USB interface can be operated online, UV cooling detector, equipped with breathing light

UV3600TP: Add Android system touch screen (10.1 inches) and 32G storage space, more convenient for customers to operate

3. Main accessories and configuration (can be customized)

- 1) Integrating sphere: wavelength range: 220-2600nm, 60mm inner diameter, standard PMT/InGaAs/PbS three detectors
- 2) Film holder: used for transmission measurement of thinner samples, such as films and filters. Sample size: minimum W 16 × H 32 mm, maximum W 80 × H 40 × D 20 mm
- 3) Rotating film holder: The film holder can rotate the sample (centered on the optical axis) on the plane. Polarizers I, II and III can be used. Measuring sample size: W 33 × H 30 × D 2 mm
- 4) Specular reflection device (5° incident angle): This accessory is used for the relative specular reflectance test. The maximum sample size is W 140 × H 160 × D 10 mm, and the minimum sample diameter is 7mm.
- 5) Micro cell bracket with aperture: used for semi-micro and micro cells with a length of 10mm and a width of less than 4mm, the aperture width can be adjusted continuously
- 6) Small sample holder (for 60mm integrating sphere): used to place 5-10mm square or round samples with a thickness of 1-5mm. The sample is fixed by upper and lower clamps

Supplementary Note:

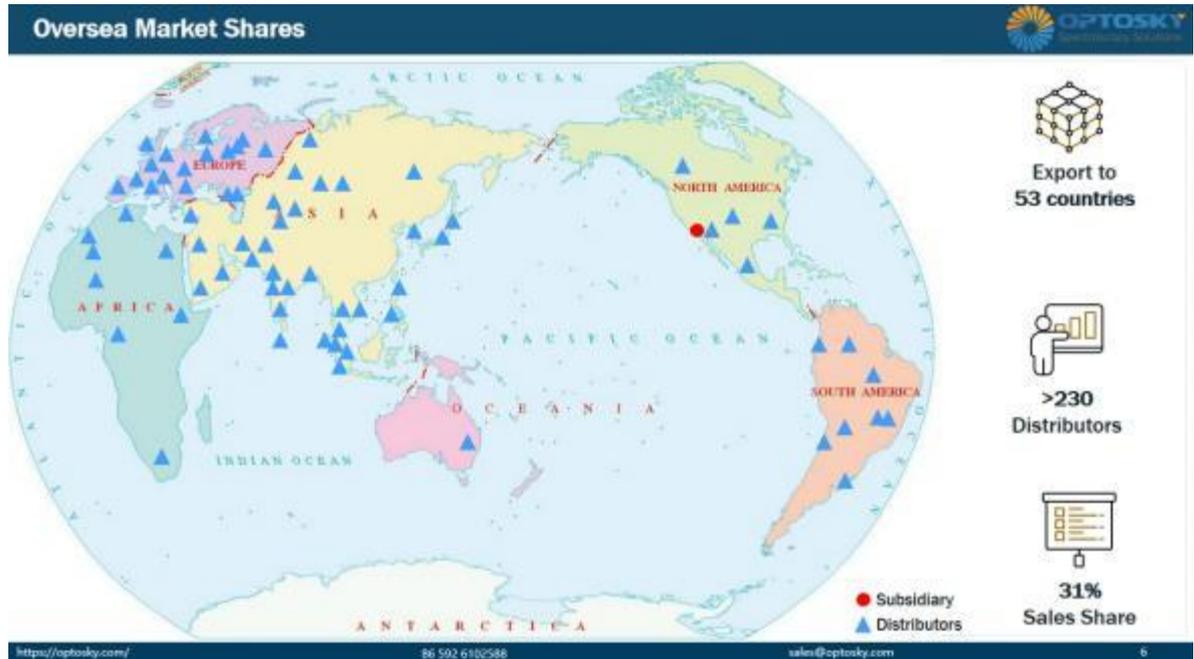
UV3600 is equipped with a USB data output interface, which can be connected to a computer, which is more convenient for data processing. Not only that, UV3600-TP is equipped with a 10-inch high-definition large screen, which can display data and graphics without being online, so that users can view test results more quickly.

The design of the UV spectrophotometer plus indicator light is more intelligent. Different colors of the lights represent different operating states, allowing users to easily grasp the operating state of the instrument and proceed to the next step.

4. Some Application Cases



5. Company Profile



Overseas Market Shares



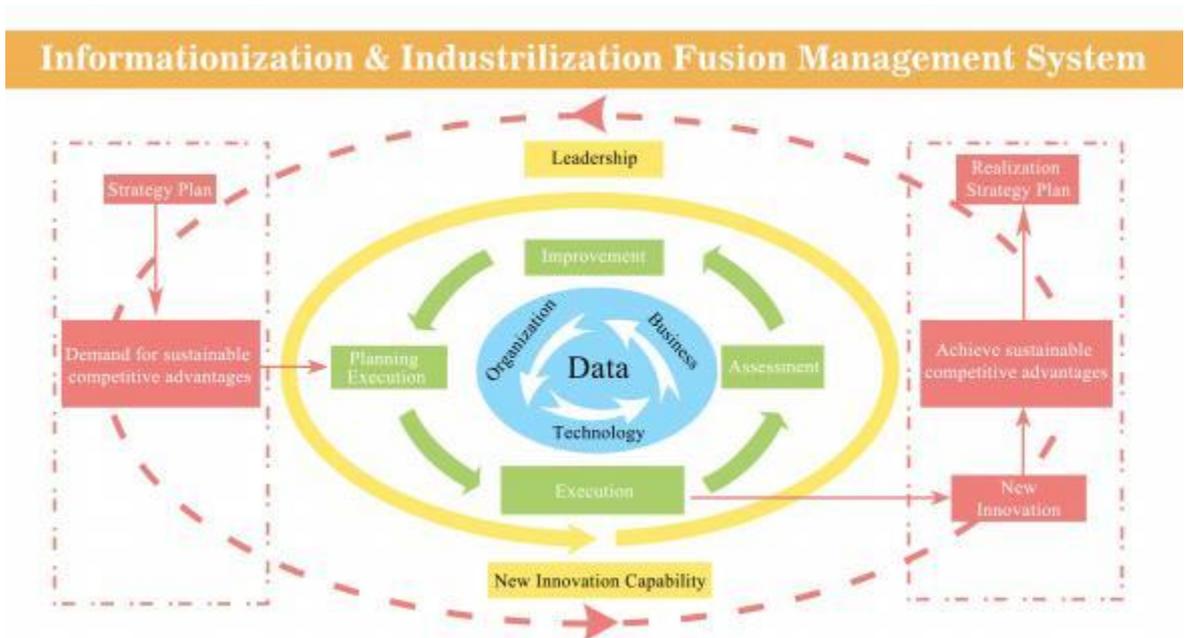
Optosky Chair and Draft National Standards Lists

Qualification

 ISO9001:2005	 GB/T 23001 Informationization & Innovation	 CE, RoHS, LVD 17 models	 Police Approval 11 models
 GB/T 29490 IP implementation	 5 Innovative patents	 35 patents new utility design	 32 Software copyright

<https://optosky.com/>
00 592 6102588
sales@optosky.com
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Qualification



GB/T 23001 _ Informationization & Industrilization Fusion Management System

Co-Founder—Dr. Hongfei Liu



Honors

- Selected by science & technology ministry as "Innovation Talent"
- CCTV Science & Technology Interview
- Top Class A Talent credited by Xiamen City
- Innovation Hero**

Education

- PhD • Chinese Science of Academic • Prof. Gu-Lin Chen, Originator in spectroscopy
- Postdoctoral • Xiamen University • Prof. Zhong-Qun Tian guided by the SERS founder M.Fleischmann

Career

- Engineer → R&D Manager → GM
- Agilent**, Leader of Instrument, Fortune 500 company, Job: engineer
- II-VI Incorporated (Nasdaq: IVI) leader in optical & electrical industries, Job: GM of Instrumentation and Automation

Academic

- University graduate tutor
- obtain more than 60 IPs, more than 10 innovation patents;
- Publish more than 20 papers, 2 recorded SCI, 8 recorded EI



Selected "Innovative Talent" by Science and Technology ministry



Top Class A Talent by Xiamen City



Founder & Tutors

Postdoctoral Hongfei Liu

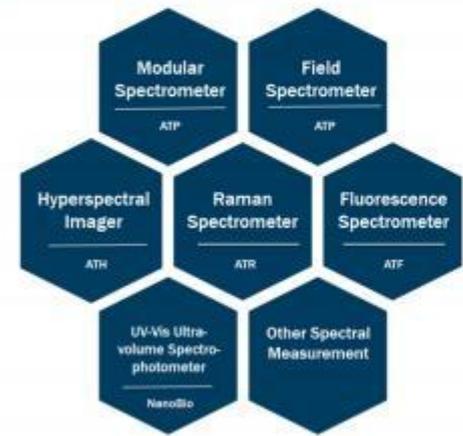
- Selected "Innovative Talent" by Science and Technology ministry
- Top Class A Talent by Xiamen City
- CCTV Science & Technology Interview
- Fortune 500 experience in Agilent, II-VI

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Optosky's Co-founder_Dr. Hongfei Liu

Category & Application

Category



Application



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