UV2500

Double Beam UV/Vis Spectrophotometer

Techcomp

UV2500

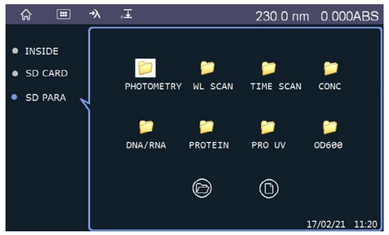
High performance UV/Vis spectrophotometer

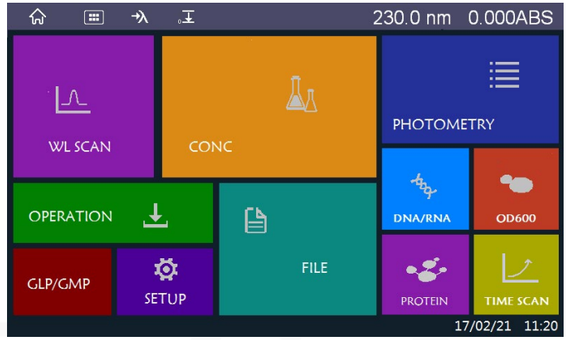
The new UV2500 is the latest standalone high-performance double beam UV-Vis spectrophotometer. Incorporated with the modern touchscreen interface with intuitive menus and functions to ensure ease of use.

The UV2500 can be widely used in different applications such as water quality analysis, material science analysis, analytical science as well as Pharmaceutical analysis.

Data Handling

- Nucleic acid/protein measurement and OD600 measurement functions are now available on the UV2500.
- Internal memory and external SD card slot are available for convenient retrieval and transfer of data.





Intuitive Touch Screen Control

- 7” high-resolution touch screen control panel.
- User-friendly modern interface, intuitive menus and functions.
- Able to display Spectrum, Calibration curve and Time.

Self-diagnosis and GLP/GMP Guidance

- To ensure optimum instrument performance, self-diagnosis incorporated with several parameters and wavelength calibration will automatically initiate upon start-up.
- Furthermore, the UV2500 is equipped with GLP/GMP guidance for analysis that requires validation and auditing.

Reliable Double Beam Optical System

To ensure long-term stability and accuracy analysis, the UV2500 is designed with the double beam optical path. This helps to eliminate the influence between the light source and the blank by providing a real-time comparison between the reference and sample. The UV2500 is especially suitable for both kinetic study and complex sample analysis.

International Manufacturing Standard

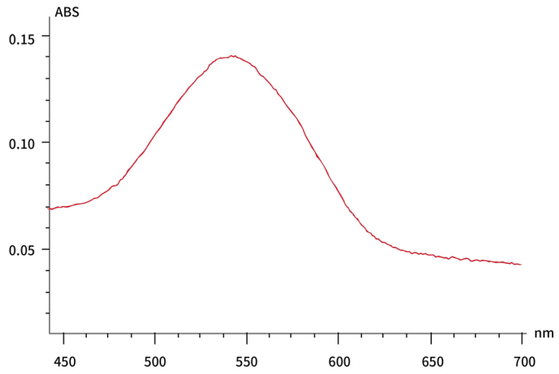
To ensure the production of high quality UV2500 spectrophotometer, Techcomp has implemented the most advanced international manufacturing standard into the manufacturing process.

Robust Aluminum Alloy Chassis

One-piece die-cast aluminum alloy base design provides stability of the optical system to prevent any shift of the signal to ensure stable optical performance.

Applications

Environmental (Hexavalent Chromium Analysis)

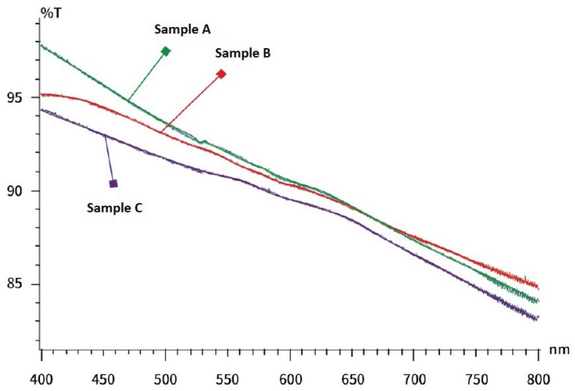


Chromium normally exists in the form of $Cr6^{+}$ in water which is extremely toxic. When $Cr6^{+}$ reacts with Diphenylcarbazide, it will form a coloured compound that has a strong absorption peak at 540nm. The concentration of $Cr6^{+}$ can then be determined using a calibration curve.

Biomedical Materials (Membrane Film)

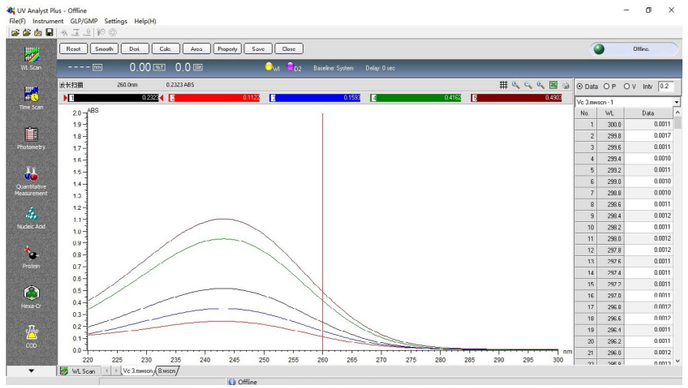
Membrane films are normally made from the processing of cellulose acetate. This kind of membrane film is usually used as the supporting body during the dyeing process of special materials and biomedical material. The quality of the dyeing process can then be determined by measuring the transmission of light through the membrane film.

Figure 1 shows the light transmission of three different types of membrane film using UV2500.



Food (Determination of Vitamin C)

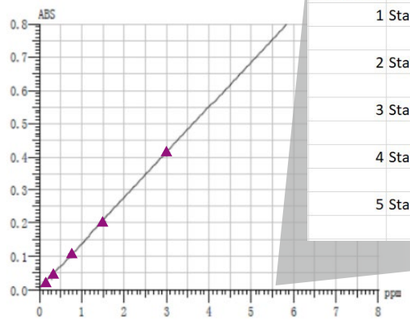
- The diagram below shows the absorption spectrum of Vitamin C in different concentrations :2µg/ml (lowest absorbency), 4µg/ml, 8µg/ml, 12µg/ml and 15µg/ml (highest absorbency) respectively.



Textile Industry (Formaldehyde Quantification)

- Formaldehyde is a substance that is commonly used in the textile finishing process to improve wrinkle and crease resistance and also to maintain the durability of the prints and dye.

- Formaldehyde can be quantified using Acetylacetone Method. A coloured compound lutidine is formed in the reaction which gives a strong absorbance at 412nm. Formaldehyde can then be quantified using a calibration graph.



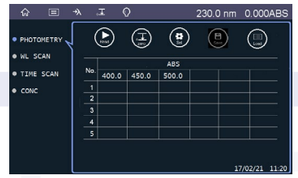
Sample ID	Sample name	Replicate	WL1 [412.0nm]	ABS	Conc (ppm)
1	Standard 1	1	0.0212	0.0212	0.15
		2	0.0214	0.0214	0.15
2	Standard 2	1	0.0403	0.0403	0.3
		2	0.0403	0.0403	0.3
3	Standard 3	1	0.1077	0.1077	0.75
		2	0.1085	0.1085	0.75
4	Standard 4	1	0.2061	0.2061	1.5
		2	0.2064	0.2064	1.5
5	Standard 5	1	0.4109	0.4109	3.0
		2	0.4118	0.4118	3.0

Software

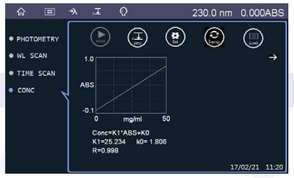
User-friendly Touchscreen Interface

- The UV2500 incorporated with a modern touchscreen interface with intuitive menus and functions to ensure ease of use. The UV2500 is a multifunction all-in-one standalone UV spectrometer suitable for day to day analysis.

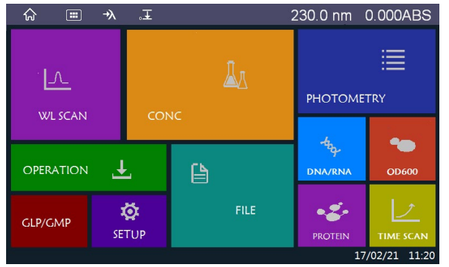
Photometry



Concentration



Wavelength scan

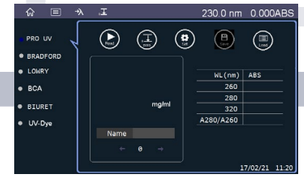


DNA/RNA Analysis

GLP/GMP Function

OD600 analysis

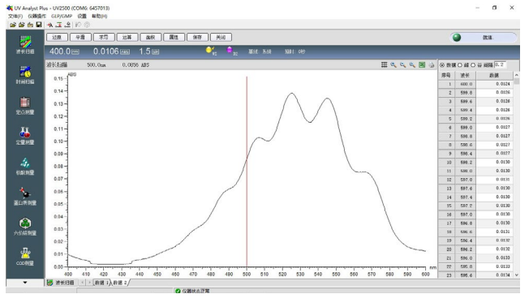
Protein analysis



Time scan

PC Control – UV Analyst Software (Optional)

- Powerful but simple to use Windows-based UV Analyst Software for quick and easy control as well as fast data processing..

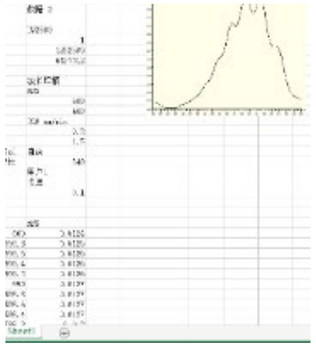


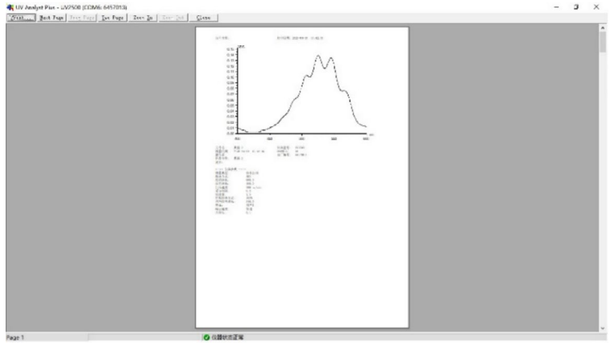
- One-click built-in analysis function for Nucleic acid, Protein, Hexavalent Chromium, COD analysis
- Real-time display to ensure the UV2500 is in its utmost operation condition.

Data Handling

- Spectrum overlay, Differentiation, and Area calculating functions included.

Report print out





- Sample Holders

PN : 0006643

Micro-Cuvette Holder

For trace samples analysis (5 ul, 25 ul, 50 ul). Suitable for Medical or Biochemical samples analysis.

PN : 0009889

Glass Filter holder

Suitable for transmittance/absorbance measurement of a solid sheet sample such as glass filter.
Sample Thickness : 0.5mm – 5mm.
Sample size : 12x25mm ~ 55x100mm.

PN : 0004550

Variable Path Length Cuvette Holder

Suitable for low concentration or low absorbance samples. (Path length : 10 mm, 20 mm, 30 mm, 40 mm, 50 mm and 100mm).

PN : 0004152

Thin-Film Holder

Suitable for measurement of thin-film samples.
Sample size : 25 x 30~50mm (LxH)
Light entrance diameter : 10mm, 20mm.

PN : 0033357

Water Circulated Cell Holder

Water is circulated through this cell holder to maintain the sample cell at a constant temperature.

PN : 0033358

Manual 5 position multi-cell holder

Mount up to 5 standard 10 mm path length cells with manual changeover of the sample.

MICRO FLOW CELL

Designed for continuous measurement of trace samples.

PN : 003361

6-POSITION CELL HOLDER

Mount up to 6 standard 10 mm path length cells with auto-changeover of sample. A temperature controlled version is also available.

PN : 0033363　0033362 (temperature controlled)

AUTO SIPPER

Designed for rapid and automatic measurement of multiple or large amounts of liquid sample without changing cells.

PN : 0033360

TEMPERATURE CONTROLLED AUTO SIPPER

Designed for rapid and automatic measurement of multiple or large amounts of liquid sample without changing cells. Temperature stabilization from +20°C to +40°C.

PN : 0033359

8-POSITION CELL HOLDER

Mount up to 8 standard 10 mm path length cells.

PN : 0033364

UV2500 Technical Specifications

Optics	Double beam
Wavelength Range	190 to 1100 nm
Wavelength Scan Speed	3600nm/min
Wavelength Accuracy	± 0.3 nm
Wavelength Repeatability	± 0.1 nm
Slit Width	1.5 nm
Stray Light	0.05%T (220nm NaI：340nm NaNO2)
Baseline Stability	0.0003 Abs/h (500nm, after 2 hours warm up)
Baseline Flatness	±0.002Abs (200~1090nm)
Noise Level	⩽0.07%T (500nm)
Photometric Range	Abs:-2.000~3.000; %T:0~300%T; Conc:0.000~9999
Photometric Accuracy	±0.002Abs (0～0.5Abs)；±0.004Abs (0.5～1Abs)； ±0.008Abs (1～2Abs)； ±0.3%T (Measured with NIST 930D Filter)
Photometric Reproducibility	±0.001Abs (0～0.5Abs)；±0.002Abs (0.5～1Abs)； ±0.004Abs (1～2Abs)； 0.1%T (Measured with NIST 930D Filter)
Light Source	Deuterium lamp and Tungsten-Halogen lamp
Light	Automatic switching selectable from 325nm to 370nm
Detector	Silicon Photodiode
Monochromator	High resolution concave diffraction grating and Seya-Namioka monochromator
Display	7 inch color touch screen control, or PC
Printer interface	PCL/3,ESC/P or DPU
Communiction port	RS-232C
Net weight	~ 30kg
Power Requirement	100、115、220、230、240V，(50/60Hz)；200VA
Environmental Requirement	Operating temperature: 5~35°C Relative humidity: 45% ~ 85%

Techcomp UV 2600

UV-VIS Spectrophotometer

- The UV2600 is a high-performance PC controlled UV-Vis spectrophotometer. Its high stability with low stray light allows the detection of trace samples down to 50µl.

- Czerny-Turner configuration ensures versatility and superior spectral performance of all-optical components to improve absorbance accuracy of ±0.002 ABS and reduce stray light down to 0.010%T.

- Powerful but simple to use Windows-based UV Analyst Software for quick and easy control as well as fast data processing.

- Wide range of accessories available for different applications in various industries – Academic research, QA/QC analysis, Environmental analysis etc.

Techcomp FL970

Fluorescence Spectrometer

- The Techcomp FL970 Fluorescence Spectrometer is high performance, easy-to-use, reliable, high durability and versatility. With its fast scanning speed of 30,000 nm/min, the FL970 can be used in a wide variety of fields and applications. Especially suitable for R&D and routine analysis in the laboratory.

Techcomp

Techcomp Hong Kong
Unit 06, 26/F., Tower 1, Ever Gain Plaza, 88 Container Port Road, Kwai Chung, N.T., Hong Kong
Tel: 852-2751 9488 Fax: 852-2751 9477
E-mail: techcomp@techcomp.com.hk

Techcomp Shanghai Instrument Ltd - Manufacturing Site
Block 16, No.201, Minyi Road, Songjiang District, Shanghai, China (201612)
Tel: +86-21-67687200
Fax: +86-21-67687190

Techcomp Singapore
2 International Business Park, #09-06 Tower 1 The Strategy, Singapore 609930
Tel: 65-6267 8921 Fax: 65-6267 8923
E-mail: techcomp@techcomp.com.sg

Techcomp Thailand
99/349 Na-Nakorn Building 7th Floor, Chaengwattana Road, Tungsonghong, Laksi, Bangkok, 10210, Thailand
Tel: +66-2-576 1629-30
Fax: +66-2-576 1631
Email: service@techcomp.co.th

Techcomp Europe
4 Bain Squar, Kirkton Campus
Livingston, EH54 7DQ, United Kingdom
Tel: +44(0)1908 211 900
Email: sales@techcomp-eu.com

Techcomp Middle East
Dubai Airport Freezone , Building 4E Block A, Office G13, PO. BOX 371347, Dubai, UAE
Tel: +971-4-204 5930 Fax: +971-4-204 5932
Email: latif.faroqui@techcomp.me

Techcomp USA
3019 Alvin Devane Blvd., Austin TX 78741, USA
Tel: +1 (512) 215-8335
Email: sales@scioninstruments.comn

http://www.techcomp.com.hk