



## The M550 UV-Vis True Double Beam Scanning Spectrophotometer



This is a true double beam instrument with parallel sample and reference beams. The specification is as expected from a top-of-the-range instrument designed for research as well as routine use. The M550 conforms to European Pharmacopoeia 5.2 and can be used with Camspec 21 CFR Part 11 compliant Panorama PC software to meet the exacting requirements of the pharmaceutical industry.

Two silicon photodiodes are used for measuring the two beams simultaneously for optimising measurement accuracy and stability. The reference beam is especially useful for measuring samples where the reference changes with time. The M550 uses a very easy-to-replace tungsten-halogen lamp, and a pre-aligned long-life Hamamatsu deuterium lamp.

Display	1/4 VGA 320x240pixels backlit LCD
Light sources	Tungsten-Halogen and Deuterium
Monochromator	Littrow type with 1200 lines/mm grating
Scan Speed	Up to 2500nm/min (Return 3000nm/min)
Detectors	Silicon Photodiodes
Wavelength Range	190 - 1100nm
Wavelength Accuracy	± 0.3nm
Wavelength Resolution	0.1nm
Wavelength Repeatability	± 0.05nm
Noise	< 0.0001A @ 500nm 0A
Zero Drift	< 0.001A per hour after warm-up
Baseline Flatness	± 0.002A
Bandpass	1.8nm
Stray Light (A.S.T.M.)	<0.05%T @ 220nm and 340nm
Photometric Accuracy	Better than ± 0.005A @ 1A
Photometric Range	0.3 to 3A, 0 to 200%T, 0 to 9999 Conc
Printer Interface	Parallel for A4 HP and Epson printers
Computer Interface	Bi-directional RS232C for PC control
Power Requirements	110/120V, 220/230V, 50/60 Hz, 110VA
Dimensions	630 x 410 x 280mm packed 770 x 560 x 410
Weight	24kg packed 28Kg

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## User Interface

The user interface is almost the same as that of the popular M501 Single Beam Spectrophotometer and includes Basic Mode (Abs, %T, Conc), Quantitative (concentration calibration curves), Wavelength Scanning, Kinetics (including timedrive), DNA/Protein, Multi-wavelength, and Performance Validation. The M550 stores up to 50 methods/results.

In Basic Mode, the result is continuously displayed (no need to "press to read")

## PC Control

The M550 has an RS232C output for the transfer of results to a PC and for PC control of the M550. Comprehensive Camspec Application Software is available, together with small PC programs, dedicated to specialist tasks.

## Pharmaceutical Analysis

The M550 is European Pharmacopoeia 5.2 compliant. It passes the Potassium Chloride stray light test, the Toluene in Hexane resolution test, the Holmium Perchlorate solution wavelength test and the Potassium Dichromate absorbance test.

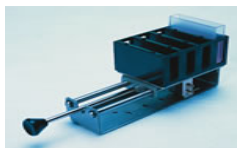
The M550 may be controlled by Camspec Panorama software which is 21 CFR Part 11 compliant. This means that it can be used for pharmaceutical analysis requiring FDA (Food and Drug Administration) approval.

## A selection of the many Cell compartment Accessories available

Micro cell holder



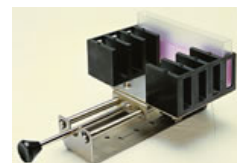
0-50 mm 4 x cell  
Manual changer



Test tube  
adaptor



0-100 mm 4 x cell  
Manual changer



Peltier / sipper  
system



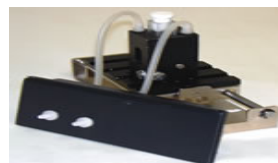
6 cell auto  
changer



Reflectance  
Head



Thermostatted  
Single Cell holder



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