

# 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 all current US & European Pharmacopoeia guidelines.

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 deuterium lamp.



## Technical Specifications for the M550 UV/VIS Spectrophotometer

Display LED Display

Light sources
Tungsten-Halogen and Deuterium
Monochromator
Littrow type with 1200 lines/mm grating
Scan Speed
Up to 2500 nm/min (return 3000nm/min)

Detector Silicon Photodiodes

Wavelength Range 190 - 1100nm
Wavelength Accuracy ± 0.3nm
Wavelength Resolution 0.1nm

Wavelength Repeatability ± 0.05nm

Baseline Flatness ± 0.002 (After 1 Hr warm up 1100 – 200nm)

Zero Drift < 0.001A per hour after warm-up

Noise ± 0.0001A @ 500nm 0A

Bandpass 1.5nm

Stray Light KCl >2A at 198nm <0.05%T @ 220nm & 340nm

Photometric Accuracy ± 0.5% at 0.5A, 1.0A and 2.0A

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 USB for PC control plus USB for data export 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), 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 USB output for the transfer of results to a PC and for PC controls 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 6.2 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.

## A selection of the many Cell Compartment Accessories available

Micro cell holder



Peltier / sipper





6 cell auto changer

**Test tube** 



8 cell auto changer



0-100 mm 4 x cell



Thermostatted Single Cell holder









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