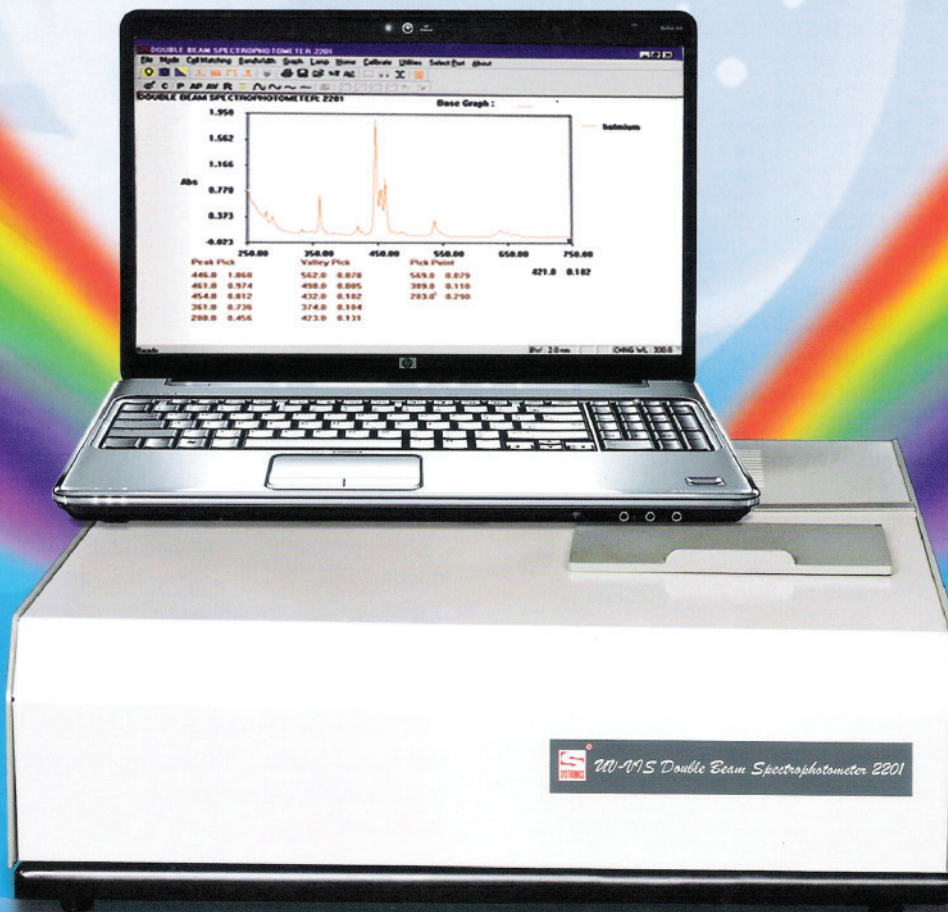




PC - Based Double Beam Spectrophotometer 2201



Versatile instrument for Research and Industrial Laboratories. The instrument is designed with precision and technique for accurate qualitative and quantitative Spectrophotometric analysis in Agricultural, Chemical, Pharmaceutical, Medical, Bio-technological, Forensic etc. fields. The PC based operation is user friendly for beginners and gives enough scope for data handling to experienced scientists.

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MANUFACTURERS OF ELECTRONIC INSTRUMENTS AND SCIENTIFIC EQUIPMENTS.

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LUCKNOW, MUMBAI, NEW DELHI, PATNA & THIRUVANANTHAPURAM.

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SPECIFICATIONS

• OPTICS

Modified Czerny-Turner Monochromator geometry for better aberration correction. Holographic diffraction grating with 1200 lines / mm blazed at 250 nm PC controlled settings.

• WAVELENGTH

Range 190 to 1000 nm
Accuracy ± 0.5 nm
Repeatability ± 0.2 nm
Resolution 0.1 nm (190 to 1000 nm)
Bandwidth 0.5 to 6.0 nm
0.5 to 2.0 nm (range 190 to 900 nm)
2.0 to 6.0 nm (range 190 to 1000 nm)
at Increment of 0.1 nm in whole range

• PHOTOMETRIC

Range -2.5 to 2.5 Abs (± 4.0 Abs)
Accuracy ± 0.005 Abs at 1.0 Abs
Repeatability ± 0.002 Abs at 1.0 Abs

• STRAY LIGHT

Less than 0.05 %T at 220 nm and 370 nm

• BASELINE CORRECTION

Automatic Baseline correction, using advanced Digital Signal Processing (DSP) techniques

• BASELINE FLATNESS

Within ± 0.003 Abs from 200 to 900 nm (excluding noises), after baseline calibration

• SCAN SPEED

Slow, Medium and Fast

• DATA INTERVAL

Depends on wavelength scan range and scan speed, minimum possible 0.1 nm for slow with lowest scan range

• SAMPLE HOLDER

Five position automatic positioning for 10 mm Sample cuvette and one fixed position for Reference cuvette

• SOURCE

- i) Tungsten-Halogen lamp (320 to 1000 nm)
- ii) Deuterium lamp with quartz window (190 to 340 nm)

• ORDER CUT-OFF FILTER

Four glass filters, automatically positioned to eliminate grating spectral order interferences

• OPERATING MODES

- i) Single Wavelength
- ii) Multi Wavelength (Max-15 Wavelengths)
- iii) Scan (with multi-scan facility)
- iv) Time Scan (with derivative facility)
- v) Kinetic Scan* (At ambient temperature)

• DETECTOR

Photo Multiplier Tube (Low Noise P.M.T.)

• MINIMUM VOLUME

- i) 2 ml in 4 ml cuvette and 500 μ l with micro cuvette
- ii) With cell riser 250 μ l in 1 ml cuvette 1 ml in 4 ml cuvette

• MEASURING MODES

- i) Absorbance
- ii) % Transmittance
- iii) Concentration (K-factor, Multi standard)
- iv) Multi Component Analysis (Max. 10 components)

• AUTOMATIC CALIBRATIONS / OPTIMISATIONS (GLP / GMP Compliance)

- i) Base line calibration
- ii) Source optimisation
- iii) Cell optimisation
- iv) Wavelength calibration
- v) Electronics calibration
- vi) Auto zero / full scale settings and calibration for Abs & %T

• DATA PROCESSING

- i) Peak Pick / Point Pick / Valley pick
- ii) Expansion / Compression of Spectra
- iii) 1st, 2nd, 3rd and 4th Derivative
- iv) Averaging of scans
- v) Subtraction of first two scans
- vi) Three level of smoothing of Spectra
- vii) Ratio, Corrected ratio, 2 point and 3 point net Abs
- viii) Comparison of concentration

• DATA PRESENTATION

Display of graphic and tabular data on Computer Monitor, permanent data storage on hard disk, hard copy of graphic and tabular data on printer

• COMPUTER SYSTEM

PENTIUM-IV or higher version with Colour Monitor, RS-232 port or USB port with WIN-XP Operating System or above

• RS 232 PORT

PC control (RS-232 or USB to serial)

• POWER

230V, $\pm 10\%$, 50Hz

• DIMENSION

555 (W) X 600 (D) X 195 (H) mm

• WEIGHT

23 kg (Approx)

• ACCESSORIES

2 matched 10 mm Quartz cuvettes

• OPTIONAL ACCESSORIES

- Holder for 50 mm or 100 mm cylindrical and rectangular cuvette
- Personal Computer / Laptop / Windows compatible printer
- * For Kinetic Scan, use External Control Dry Bath / Incubator

*Technical Specifications, Appearance & model number are subject to change without prior notice in keeping up with the state of art.