# UV-TS 2090Plus / TS 2080Plus

## Spectrophotometer Double Beam

The UV-TS 2090Plus/TS 2080Plus spectrophotometer double beam applies a new optical bench, with 5-speed adjustablebandwidth(TS2090Plus only), ARM chip control and data processing, 8-inch color touch-screen which displays menu and spectral curve and can analyze spectrum test data. It's quite easy for user and computer interaction. Theinstrument can perform following operations, including photometry, automatic scanning spectral measurement, quantitative analysis, dynamic analysis, and multi-wavelength measurement.

The instrument serves as the basic equipment for quality control, technical evaluation and scientific research, and can be widely used in susceptibility testing, medicine and health, biochemistry, environmental monitoring, commodity inspection, petrochemical and other fields.
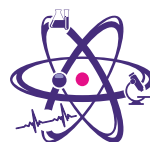
## ▶▶ Features:

• New optical platform, enabling the host machine with excellent optical properties, metering performance, low stray light and noise, high metering accuracy and stability.

• Unique system of deuterium and tungsten lamp installation, facilitating the light source to automatically switch to the best position, and allowing users to operate the instrument, replace the light source and maintain the instrument more conveniently, accurately and safely.

• Sophisticated hardware and software design, empowering the instrument with powerful spectral data process-ing and storage capailities, and performing following functions, including automatic scanning of measured spec-trum, multi-wavelength (1-3 λ) measurement, kinetic measurement, Quantitative analysis, time course measurement, fixed wavelength measurement, validation, Daily maintenance 1-3 curve fitting, 1-4 derivative spectra, spectra printing and storage and data analysis.

• 8-inch color touch-screen, with a good user-machine interface, easy-to-operate.
• Standard functions include IQ Accessories, Start button, Analog output
• USB communication port.

## ▶▶ Standard Accessories

| | |
|---|---|
| Operation manual | 1 |
| Quartz cuvette 1cm | 2pcs |
| Power cable | 1 |
| Fuse | 2pcs |

## ▶▶ Optional Accessories

• UV WIN8 Spectrum data processing software

| | TS 2090Plus | TS2080Plus |
|---|---|---|
| Photometry | Double Beam | |
| Monochromator Type | Czerny-Turner | |
| Focal Length | 200mm | |
| Grating | 1600 lines/mm | |
| Detector | Silicon Photocell | |
| Spectrum Bandwidth | 0.5nm, 1nm, 2nm, 4nm, 5nm | 1nm |
| Wavelength Setting | 8-inch color touch-screen | |
| Wavelength Range | 190-1100nm | |
| Wavelength Accuracy | ±0.2nm (at 656.1 nm) | |
| Wavelength Repeatability | ±0.1nm | |
| Scanning Speed | Fast-Medium-Slow, upto 8000 nm/min | |
| Stray Light | ≤0.02%T( at 220nm NaI, 340nm NaNo2), 1% (198 nm KCl) | |
| Photometric Range | Absorbance -3 to 3 Abs  Transmittance 0% To 300% | |
| Photometric Accuracy | ±0.3%T<br>±0.0015 Abs (0-0.5A)<br>±0.0025 Abs (0.5-1A) | |
| Photometric Repeatability | ≤0.15%T<br>0.0005Abs (0-0.5A)<br>0.001Abs (0.5-1A) | |
| Baseline flatness | ≤±0.001 A(200-1090nm) | |
| Baseline Stability | ±0.0004 Abs | |
| Slew speed | 24000 nm/min | |
| Noise | 0.00003 A (0 Abs, 500nm) | |
| Drifting | ≤0.0005 Abs/h (250nm and 500nm after 2h warm up) | |
| COM Port | USB | |
| Light Source | Hamamatsu D2 lamp, Osram halogen tungsten | |
| lampPower | Ac220V±22V 50Hz±1Hz, 200W | |
| Packaging Size | 740mm x 630mm x 450mm, 35kg | |
| System dimension | 59cm x 46cm x 25cm | |
| Scan Ordinate Modes | Absorbance, % transmittance, % Reflectance, Kubelka-Munk,<br>log (1/R), log (Abs), Abs*Factor, Intensity | |
| Resolution | > 1.6 (peak-to-valley ratio; toluene in hexane) | |
| Data Intervals | 10, 5, 2, 1.0, 0.5, 0.2, 0.1 nm | |
| Display Range | -0.3 to 4.0A | |
| Solutions (EP/BP/TGA) | ±0.010A (60 mg/L K2Cr2O7) | |
| Room Temperature | 15-37°C | |
| Humidity | 80% | |