

SP5000UV

Spectrophotometer

High-Precision UV-Visible Split Beam Spectrophotometer

SPECTROPHOTOMETERS
SP Series | UV/Visible

21 CFR Part 11
GLP/GMP Compliant

OVERVIEW

The SP5000UV Spectrophotometer is a high-end UV-Visible analytical instrument engineered for research laboratories and regulated industries requiring exceptional accuracy and compliance. Featuring a 1200 l/mm holographic grating and optimized split beam optical design, it ensures outstanding measurement stability and low stray light. Its all-aluminum die-cast base and molded plastic housing enhance durability, while the integrated 8-inch IPS color touchscreen tablet provides intuitive operation and expanded functionality.

With comprehensive analytical software compliant with 21 CFR Part 11 and full GLP/GMP traceability, the SP5000UV supports secure data management, audit trails, and user access control. A variety of interfaces — including USB, Wi-Fi, Bluetooth, SD card, HDMI, and OTG connectivity — allow seamless integration with external devices and laboratory networks.

KEY FEATURES

- 1200 l/mm holographic grating and optimized split beam optical design for superior accuracy and stability
- All-aluminum die-cast base and molded plastic shell ensure long-term durability
- Patented wavelength driving mechanism improves repeatability and reduces noise
- External 8-inch IPS color touchscreen tablet (2GB RAM, 32GB SSD) for intuitive operation and scalability
- Wide sample compartment compatible with 5–100 mm sample holders and accessories
- Automatic self-calibration and preheating upon startup
- Comprehensive analytical and measurement functions with user-defined method setup
- 21 CFR-compliant software with full GLP/GMP functions for secure and traceable operation
- Multiple connectivity: USB (OTG), Wi-Fi, Bluetooth, HDMI, and SD card reader
- Supports external devices: keyboard, mouse, scanner, and printer
- Open data interface protocol enables system integration
- Firmware upgradeable directly via USB storage

TECHNICAL SPECIFICATIONS

PARAMETER	VALUE
Optical System	Split Beam
Light Source	Tungsten and Deuterium lamps
Spectral Bandwidth	2 nm
Wavelength Range	190 – 1100 nm
Detector	Dual silicon photodiode
Sample Holder	10 mm 4-cell manual changer
Display	8-inch IPS color capacitive touchscreen (2GB RAM / 32GB SSD)
Storage	128 MB built-in; expandable via USB, SD card, or network
Interface	USB-A (OTG) ×1, USB-B (PC) ×1, Wi-Fi, SD card, HDMI, Bluetooth
Power	100–240 V AC, 50/60 Hz, 120 VA
Dimensions (W×D×H)	456 × 360 × 185 mm
Weight	11 kg

APPLICATIONS

Pharmaceutical and biotechnology research	Regulated laboratories requiring 21 CFR and GLP/GMP compliance	Academic and industrial R&D
Environmental, food, and chemical analysis	Quality assurance and process control	Quantitative and spectral analysis across UV and visible ranges