

MICROPROCESSOR UV-VIS DOUBLE BEAM SPECTROPHOTOMETER

WITH BLUETOOTH & TAB

Product Description

The LABWAN Microprocessor UV-VIS Double Beam Spectrophotometer with Bluetooth & Tab is a double-beam spectrophotometer designed for accurate absorbance and transmittance measurement. Its double-beam optical system helps restrain drift and compensate for blank changes, making it suitable for long-term testing. It also supports wavelength scanning through PC software and is widely applicable in laboratory, research, quality-control and industrial environments.

Features

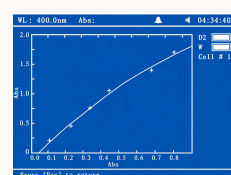
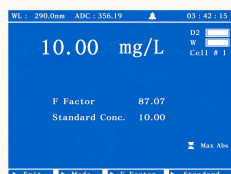
- Double beam optical system
- Low noise and low stray light
- High-quality grating, detector and lamps
- Data and curves can be stored in real time
- Automatic wavelength setting
- Automatic blank setting
- Lamps can be turned ON/OFF individually
- Easy replacement of pre-aligned lamps
- Reinforced baseboard and bracket for durability
- Photometric measurement: T%, Abs
- Quantitative analysis using standard curves
- Wavelength scan / spectrum scan
- Time scan / kinetics
- DNA/Protein testing
- Bluetooth & Tab configuration

Application/Uses

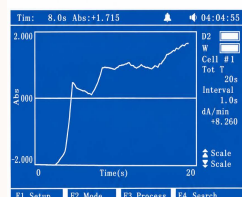
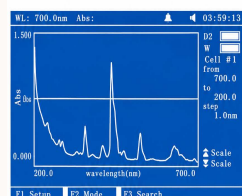
- Medicine & Pharmaceutical Industry
- Environmental Monitoring
- Food & Beverage Testing
- Agricultural Chemistry
- Colleges & Universities
- Metallurgy & Geology
- Machine Manufacturing
- Petrochemical Industries
- Water & Wastewater Laboratories
- Absorbance & Transmittance Measurement
- Quantitative & Standard Curve Analysis
- DNA & Protein Testing
- Wavelength & Kinetic Analysis



LI-2701



No	Items	Result	Unit	W	Cell #1
2	A1	0.251	Abs	260.0	
	A2	0.243	Abs	280.0	
	Aref	0.095	Abs	320.0	
	C-DNA	4.524	ug/mL		
	C-Prot	110.8	ug/mL		
	Ratio	1.059			



Basic Mode

To measure the Absorbance and transmittance

Quantitative

- Coefficient Method
- Standard Curve Up to 10 Standard sample may be used to establish a curve. Four methods for fitting a curve through the calibration points: Linear fit, Linear fit through zero, Square fit and cubic fit.

DNA/Protein Test

Concentration and DNA purity are quickly and easily calculated: Absorbance ratios: 260 nm / 280 nm with optional subtracted absorbance at 320 nm. DNA concentration = $62.9 \times A_{260} - 36.0 \times A_{280}$ Protein concentration = $1552 \times A_{260} - 757.3 \times A_{280}$

Wavelength Scan

- The wavelength scan intervals are 0.1, 0.2, 0.5, 1, 2, 5 nm.
- High, Medium and low scan speed are available. They vary from 100 to 3600 nm/min.
- Wavelength are scanned from high to low so that the instrument waits at high WL. And it minimizes the degradation of UV sensitive samples.

Kinetics

Abs vs time graphs is displayed on the screen in real time. Wait time and measurement time up to 12 hours may be entered with time interval of 0.5, 1, 2, 5, 10, 30 seconds and one min. Post-run manipulation includes re-scanning, curve tracking and selection of the part of the curve required for rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.

Silent Features

- Double beam optical system
- Low noise and Low stray light
- High quality grating, detector and lamps
- Data and Curve can be stored in real-time
- Auto setting WL, auto Blank
- Lamps can be turned on/off individually
- Easy to change Pre-aligned lamps
- Reinforced baseboard and bracket assures durability

Technical Specifications

Parameter	Specification
Product Name	Microprocessor UV-VIS Double Beam Spectrophotometer
Configuration	With Bluetooth & Tab
Model Number	Not Mentioned
Wavelength Range	190–1100 nm
Spectral Bandwidth	1 nm
Optical System	Double Beam, Blazed Holographic Grating (1200 lines/mm)
Wavelength Accuracy	±0.5 nm
Wavelength Repeatability	≤0.2 nm
Wavelength Setting	Auto, Resolution 0.1 nm
Photometric Range	0–200%T, -4–4A, 0–9999C
Photometric Accuracy	±0.002 A (0–0.5A), ±0.003A (0.5–1A), ±0.3%T (0–100%T)
Photometric Repeatability	≤0.001 A (0–0.5A), ≤0.002A (0.5–1A), ≤0.2%T (0–100%T)
Stray Light	≤0.05%T (220/360 nm)
Scan Speed	High, Medium, Low; Max. 2000 nm/minute
Baseline Flatness	±0.0015A
Stability	±0.001A/h (500 nm, 0A)
Noise	≤0.2%T/3min (250/500 nm, 0%T); ≤0.5%T/3min (250/500 nm, 100%T)
Sample Compartment	10 mm Pathlength Cuvette
Detector	Silicon Photodiode
Lamps	Tungsten Lamp & Deuterium Lamp (Pre-aligned)
Output Port	USB Port
Printer	Mini Serial Printer; PC Printer
PC Software	UV Analyst Scanning Software
Power Requirements	AC 90–250V, 50/60Hz
Dimensions	545 x 468 x 245 mm
Weight	18 kg