

Nano-500 Micro Spectrophotometer



Product Information

The Nano-500 is an advanced model of Micro UV VIS Spectrophotometer based on Nano-300, with full range of wavelength (200-800nm). It is with an added new function of bacterium cell concentration measurement (OD600) in a cuvette. The Nano-500 only requires 0.5-2ul sample to measure nucleic acids, protein as quickly like Nano-300 do. Nano-500 come with a 7-inch touch screen and integrated Android operating system, with no computer required. It is an ideal equipment for a biology laboratory to make life science research more efficient.

New fluorescence detection function for nano-500

Fluorescence detection combined with fluorescence quantitative analysis kit, able to accurately quantify DNA, RNA and protein concentration through the specific binding of fluorochrome with target material, and the minimum limit is 0.5pg/u(dsDNA). Nano-500 can be compatible with common fluorescence quantitative reagent to provide users with maximum convenience and minimum detection cost.

Features

1. Nano-500 is designed base on nano-300:

A. To added the 0.05mm optical path length, and the highest detection concentration up to 15000ng/ul

B. To added the Fluorescence detection function, which can be used for accurate quantification of extremely low concentration nucleic acid with a lower limit of 0.5pg/ μ l

C. Automatic detect after put down the arm

2. The patented lifting motor structure makes the liquid column stretch more gentle, preventing the liquid column from breaking due to structural problems. In addition, the structure can effectively solve the instability of reading caused by high concentration sample, especially suitable for precise quantification of protein samples

3. Android system, 7-inch capacitive touch screen, intuitive APP software, simple and easy to use

4. To detect the concentration of bacteria and microorganism are more convenient with the OD600 function

5. With a 2048-Element linear CCD array detector, the detection and display can be completed in 6s

6. Equipped with HD touch screen, no need to connect computer.

7. Longer service life of optical component, intelligent identification of user usage. The light source will auto off after 5 minutes without any operation to extend service life

8. The result can be printed by a built-in printer or exported via USB for data analysis and storage

Technical data

Model	Nano-500
Wavelength Range	200~800nm
Sample Size	0.5~2.0ul
Path Length	0.05/0.2mm (For high concentration measurement) 1.0mm (Ordinary concentration)
Light Source	Xenon flash lamp
Detector Type	2048-element linear silicon CCD array

Wavelength Accuracy	1nm
Spectral Resolution	≤3nm (FWHM at Hg 546nm)
Absorbance Precision	0.003Abs
Absorbance Accuracy	1% (7.332Abs at 260nm)
Absorbance Range	0.04 – 200A
Detection Range	2~15000ng/ul (dsDNA)
Measurement Time	<6s
Dimensions (W x D x H)mm	208 x 310 x 186
Data Output	USB
Weight	3.6kg
Sample Pedestal Material	Aluminum alloy and Quartz fiber
Operating Voltage	24VDC
Operating Power Consumption	25W
Standby Power Consumption	5W
Software Compatibility	Android System
Fluorescent detection	

Sensitivity	dsDNA: 0.5pg/ul
Linear Dynamic Range	$R^2 > 0.995$
Repeatability	$< 1.5\%$
OD600nm Measurement:	
Light Source	LED
Wavelength Range	$600 \pm 8\text{nm}$
Absorbance Range	0~4A

Accessories

Code	Description
AS-11060-00	Nano-500 Micro-Spectrophotometer, DC24V 5W
AS-11021-01	Cuvette for Nano-300, Nano-400A and Nano-50