FAITHFUL®

Nano-100/300/400A/500 Micro-Spectrophotometer

Nano-100 Micro-Spectrophotometer

Nano-100 is a micro-spectrophotometer with full wavelength (200-800 nm). It can quickly and accurately detect the sample concentration. Because it is easy to use, less consumption of samples (only 2 μL), no preheating, can quickly clean up residual samples, samples do not need to dilute and other characteristics, has become a routine instrument in many laboratories.

Features:

- Full wavelength (200~800 nm) micro-spectrophotometer
- Direct detection of high concentration samples without dilution, maximum detection concentration up to 4500 ng/μL (dsDNA)
- High resolution CCD array detector, 5 s can complete the detection, display the results
- Need to connect PC computer to run detection, data saving, printing, sorting are very convenient
- Long life pulse xenon lamp light source

Nano-300 Micro-Spectrophotometer

With full wavelength (200-800 nm). It added a function of bacterium cell concentration detection (OD 600) . Equipped with the cuvette mode to measure the concentration of bacteria and other culture media, so as to estimate count the growth of bacteria.

Features:

- Android system, 7-inch capacitive touch screen.
- Newly designed OD600 optical path detection system, new cuvette mode.
- High resolution CCD array detector, 5 s can complete the detection, display the results.
- With its own high-definition touch screen and control program, without a computer connection.
- Long life pulse xenon light source, intelligently identify the user's usage. No operation within 5 minutes, the light source will be automatically turned off to prolong the service life.
- With USB; Can print reports directly through the built-in printer.
- Automatic detection and automatic blank function.

Nano-400A Ultra-micro Nucleic Acid Analyzer

Nano-400A ultra-micro nucleic acid analyzer is an instrument used to detect the concentration and purity of DNA and RNA. The sample size required for each measurement is only 1.0 to 2 μL. Without accessories such as cuvettes or capillaries.

Features:

- Ultra-micro nucleic acid analyzer with fixed wavelength (260 nm, 280 nm, 365 nm) .
- Android system, 7-inch capacitive touch screen, no computer connection required.
- LED light source.
- It is mainly used to detect the concentration and purity of nucleic acid.
- Newly designed OD600 optical path detection system, new cuvette mode, convenient for the concentration detection of bacteria, microorganisms and other culture solutions.
- The test data is transferred to the computer via USB.
- The built-in printer can print the report directly.

Nano-500 Micro-Spectrophotometer

With a sample size of only 0.5 μL to 2 μL, can be rapidly and accurately detected.

The cuvette mode can be used to detect the concentration of culture media such as bacteria.

Features:

- Added fluorescence detection function, can accurately measure DNA samples below 5 ng/μL. With the corresponding detection kit, the detection limit can reach 0.5 pg/μL (dsDNA), able to accurately quantify the concentration of DNA, RNA and protein through the specific binding of fluorochrome with target material, and the minimum limit is 0.5 pg/μL (dsDNA).
- Standard OD600 detection function.
- Android system, 7-inch capacitive touch screen.
- High-resolution CCD array detector, 6 s can complete detection and display results.
- Long life pulse xenon lamp light source.
- With USB: The built-in printer can print the data directly.

Technical Parameters:

Model	Nano-100	Nano-300	Nano-400A	Nano-500
Wavelength Range	200-800 nm	200-800 nm	260 nm, 280 nm	200-800 nm
Minimum Sample Size	0.5-2.0 μL	0.5-2.0 μL	1.0-2.0 μL	0.5-2.0 μL
Path Length	0.2mm, 1.0mm	0.2mm, 1.0mm	0.5mm	0.05/0.2mm, 1.0mm
Light Source	Xenon flash lamp	Xenon flash lamp	UV LED	Xenon flash lamp
Detector Type	2048 linear CCD array	2048 linear CCD array	UV-silicon photocell	2048-linear CCD array
Wavelength Accuracy	1nm	1nm	-	1nm
Spectral Resolution	≤3 nm	≤3 nm	≤8nm	≤3 nm
Absorbance Precision	0.003 Abs	0.003 Abs	0.005 Abs	0.003 Abs
Absorbance Accuracy	1% (7.332 Abs at 260 nm)	1% (7.332 Abs at 260 nm)	2% (7.332 Abs at 260 nm)	1% (7.332 Abs at 260 nm)
Absorbance Range	0.04~90 A	0.04~90 A	0.2~50 A	0.04~300 A
Nucleic Acid Detection Range	2~4500 ng/μL (dsDNA)	2~4500 ng/μL (dsDNA)	10-2500 ng/μL (dsDNA)	2~15000 ng/μL (dsDNA)
Measurement Time	<5s	<5s	<6s	<6s
Dimension (WxDxH) mm	200×250×166	210×268x181	208×280×186	208×320×186
Weight	2.6 kg	2.8kg	2.0 kg	3.6kg
Sample Pedestal Material	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber
Operating Voltage	DC24 V2A	DC24 V2A	DC24 V2A	DC24 V2A
Operating Power	20W	25W	25W	25W
Standby Power	5W	5W	5W	5W
Software Compatibility	Win 7, Win XP, Win 8	Android system	Android system	Android system
Cuvette Mode (OD600 measurement)				
Light Source	-	LED	LED	LED
Wavelength Range	-	600±8nm	600±8nm	600±8nm
Absorbance Range	-	0-4A	0-4A	0-4A
Fluorometer Mode				
Sensitivity				dsDNA: 0.5 pg/μL
Linear Dynamic Range				$R^2 \geq 0.995$
Repeatability				≤ 1.5 %

Nano-1000 Micro-Spectrophotometer

Is a full-wavelength micro-spectrophotometer that can provide ultraviolet/visible light absorption detection.
Suitable measure a large number of nucleic acid or protein samples.

Features:

- 10-inch touch screen, Android system, no need to connect to an additional computer.
- Results can be obtained within 8 seconds.
- It can detect wavelengths in the range of 190 1100nm, and the maximum detection concentration can reach 15000ng/μL (DNA).
- Samples can be loaded for detection with either hand.
- Built-in camera for quickly judging the formation of the liquid column.
- Log in to the instrument software through the face recognition function.

Technical Parameters:

Model	Nano-1000	
Micro Detection	Sample Volume	0.5-2μL
	Light Source	Xenon flash lamp
	Optical Path	0.075mm、0.2mm、1mm
	Detector	2048-element linear CMOS array
	Wavelength Range	190-1100nm
	Wavelength Accuracy	±1nm
	Wavelength Resolution	≤1.5nm (FWHM@Hg253.652nm)
	Absorbance Repeatability	0.002A (1mm optical path, SD)
	Absorbance Accuracy	3% (0.97 A, 302 nm, 23±2°℃)
	Absorbance Range	0.04-300A
	Nucleic Acid Detection Range	2-15000ng/μL (dsDNA)
	Test Time	About 8s/sample
OD600 Detection	Absorbance Range	0 to 4.000 Abs
	Absorbance Stability	[0,3) ≤0.5%; [3,4) ≤2%
	Absorbance Repeatability	[0,3) ≤0.5%; [3,4) ≤2%
	Absorbance Accuracy	[0,2) ≤0.005A;[2,3)≤1%;[3,4)≤2%
Fluorescence Detection	Linearity	$R^2 \geq 0.995$
	Linear Range	5 orders of magnitude
	Sensitivity (Limit of Detection)	<0.1 pg/μL (dsDNA HS)
Others	Dimensions	262×367×340 mm
	Weight	6.6kg

Nano-8000 Micro-Spectrophotometer

Nano-8000 is a high-throughput full wavelength micro- spectrophotometer that can provide UV/Vis absorbance detection for up to 8 samples in one run.And also has OD600 and single-tube fluorescence detection functions.

Features:

- 10-inch screen, Android system, no need to connect a computer.
- Detect 8 samples in one run and obtain results in 20 s.
- Realize wavelength detection at 190-1100 nm, with a maximum detection concentration of 10000 ng/μL (DNA).
- Samples can be tested on both hands.
- Built-in camera for quick determination of liquid column formation.
- Log in to the instrument software through facial recognition function.

Technical Parameters:

Model	Nano-8000	
Micro Detection	Sample size	1-2 μL
	Light source	Xenon flash lamp
	Path length	0.075 mm, 0.2 mm, 1 mm
	Detector type	2048-linear CMOS array
	Wavelength range	190-1100 nm
	Wavelength accuracy	±1 nm
	Wavelength resolution	≤1.5 nm (FWHM @Hg 253.652 nm)
	Absorbance repeatability	0.002A (1 mm path length, SD)
	Absorbance accuracy	3 % (0.97 A, 302 nm, 23±2 °C)
	Absorbance range	0.04-200 A
	Nucleic acid detection range	2-10000 ng/μL (dsDNA)
	Measurement time	About 20 s / 8 samples
OD600 Detection	Absorbance Range	0 to 4.000 Abs
	Absorbance Stability	[0,3) ≤0.5 %; [3,4) ≤2%
	Absorbance Repeatability	[0,3) ≤0.5 %; [3,4) ≤2%
	Absorbance Accuracy	[0,2) ≤0.005 A; [2,3) ≤ 1 %; [3,4) ≤ 2 %
Fluorescence Detection	Linearity	$R^2 \geq 0.995$
	Linear Range	5 orders of magnitude
	Sensitivity (Limit of Detection)	<0.1 pg/μL (dsDNA HS)
Others	Dimensions	262×367×340 mm
	Weight	6.6kg

Ultramicro Nucleic Acid Protein Analyzer-ND600

Features:

- Color touch screen design.
- A sample volume of 0.5-2uL is sufficient for purity and concentration testing.
- OD 600 detection module.
- Quick measurement,completed within 5 seconds.
- Built in printer, directly print test reports.
- Data can be exported through USB flash drive and SD drive.
- Optional fluorescence quantification module for fluorescence testing.

Technical Parameters:

Model	ND600
Display	Touch Screen
Wavelength Range	185-910nm
Sample Volume	0.5-2.0ul
Light path	1mm.0.5mm.0.1mm.0.05mm.0.02mm
Light Source	Xenon flash lamp
Detector	3648 CCD
Wavelength Accuracy	1nm
Spectral Resolution	3nm(FWHM at Hg 546nm)
Absorbance Accuracy	0.002Abs
Photometric Accuracy	1% (7.332 Abs at 260nm)
Absorbance Range (10mm)	0-550A
OD600 Abs Range	0-4A
Measurement Time	≤5S
Concentration Range	2-38880ng/ul(dsDNA)
Concentration Range	0.06-820mg/ml (BSA)
Out port	USB.SD-RAM
Material	Quartz optical fiber/High hard aluminum
Printer	Built-in thermal printer
External Power Supply	6800mAh Optional
Fluorescence Detection	EX 460nm EM 525nm Optional
Power Voltage	AC220V,50/60HZ
Dimension（mm）	270×210x196
Weight （kg）	3.5