



NANO SPECTROPHOTOMETER

NANO SPECTROPHOTOMETER BEY1Q1

BIOPHOTOMETER



- Fast test for DNA/RNA and protein.
- High-quality flash Xenon lamp, longer service life.
- No need for warming-up, no need for calibration.
- CCD detector, fast test in 2 to 5s.
- 7.0 inches HD touch screen, stand-alone system, user-friendly UI.
- Wide measurement range, no need for dilution.
- Less sample consumption, no more than 2 μ L for each test usually .
- Developed on Linux, the system is much safer, reliable and independent.
- Large data storage
- Suitable for testing of ssDNA, dsDNA, fluorochrome, protein and OD600, etc.

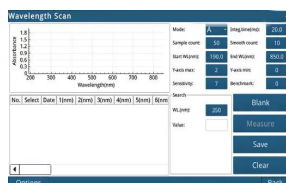
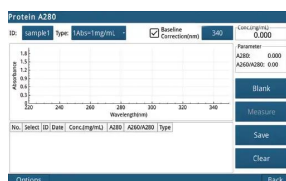
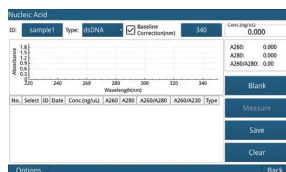
SPECIFICATIONS

Model	BEY1Q1
Sample Volume	1.0-2.0 μ L
Measurement Time	2-5 s
Optical Path Length	0.25 mm
Detector	CCD (3648 Pixels)
Wavelength Accuracy	1 nm
Wavelength Repeatability	≤ 0.2 nm
Absorbance Precision	0.002 Abs (equivalent to 1 mm optical path length)
Min. Detection Limit	2 ng/ μ L (dsDNA)
Max. Detection Limit	5,000 ng/ μ L (dsDNA)
Absorbance Range	0.02-100 A (equivalent to 10 mm optical path length)
Operating System	Linux
Display	7 inches HD Touch Screen (1024 X 600)
Alt Name	Biophotometer

FEATURES

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NANO SPECTROPHOTOMETER BGH1S1 TO BGH1S4

MICRO-SPECTROPHOTOMETER



Nano Spectrophotometer BGH1S1

User-Friendly Software, Easy to Use

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

Micro-Volumes Measuring

Only 0.5 μ L-2 μ L sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.

Long Life Light Source, Do Not Need to Warm Up

Xenon flash, life span is 10⁹ (up to 10 years). No preheating, direct use, ready to test at any time.

High Concentration Detection

The maximum concentration of the detectable sample is 15000 ng/ μ L, and the sample

SPECIFICATIONS

Model	BGH1S1	BGH1S2	BGH1S3	BGH1S4
Wavelength range	200~800 nm		260 nm, 280 nm	200~800 nm
Minimum sample size	0.5~2.0 μ L		1.0~2.0 μ L	0.5~2.0 μ L

Path length	0.2 mm 1.0 mm		0.5 mm	0.05 / 0.2 mm 1.0 mm
Light source	Xenon flash lamp		UV LED	Xenon flash lamp
Detector type	2048-linear CCD array		UV-silicon photocell	2048-linear CCD array
Wavelength accuracy	1 nm		/	1 nm
Spectral resolution	≤ 3 nm		≤ 8 nm	≤ 3 nm
Absorbance precision	0.003 Abs		0.005 Abs	0.003 Abs
Absorbance accuracy	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		0.2~50 A	0.04~300 A
Nucleic acid detection range	2~4500 ng/μL (dsDNA)		10~2500 ng/μL (dsDNA)	2~15000 ng/μL (dsDNA)
Measurement time	< 5 s		< 6 s	
Dimension (WxDxH) mm	200x250x166	210x268x181	208x280x186	208x320x186
Weight	2.6 kg	2.8 kg	2.0 kg	3.6 kg
Sample pedestal material	Aluminum alloy and quartz fiber			
Operating voltage	DC 24 V 2 A			
Operating power	20 W	25 W		
Standby power	5 W			
Software compatibility	Win 7, Win XP, Win 8	Android system		
Cuvette Mode (OD600 Measurement)				
- Light source	/	LED		
- Wavelength range	/	600±8 nm		
- Absorbance range	/	0~4 A		
Fluorometer Mode				
- Sensitivity	/			dsDNA: 0.5 pg/μL
- Linear dynamic range	/			R² ≥0.995
- Repeatability	/			≤1.5 %
Alt Name	Micro-Spectrophotometer			



BGH1S1



BGH1S2



BGH1S3



BGH1S4

FEATURES BGH1S1

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Xenon flash, life span is 10⁹ (up to 10 years). No preheating, direct use, ready to test at any time.

High Concentration Detection

The maximum concentration of the detectable sample is 15000 ng/ μ L, and the sample basically does not need to be diluted.

Convenient and Easy to Use

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

Fast Detection

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

Single Machine Operation, Convenient and Efficient

It is a micro-spectrophotometer with full wavelength (200-800 nm).

The detectable sample is 50 times that of conventional UV / Vis spectrophotometer, and maximum detection concentration up to 4500 ng/ μ L (dsDNA).

High resolution CCD array detector, 5 s can complete the detection, display the results.

Long life pulse xenon lamp light source.

The need to connect PC computers to run detection, data saving, printing, sorting are very convenient.

FEATURES BGH1S2

User-Friendly Software, Easy to Use

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

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The maximum concentration of the detectable sample is 15000 ng/ μ L, and the sample basically does not need to be diluted.

Convenient and Easy to Use

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

Fast Detection

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

Single Machine Operation, Convenient and Efficient



It is a full wavelength (200~800 nm) micro-spectrophotometer based on Nano100, which adds detection of bacterial cell density (OD600) without a computer.

Android system, 7-inch capacitive touch screen, optimized APP software.

Newly designed OD600 optical path detection system, new cuvette mode, convenient for the concentration detection of bacteria, microorganisms and other culture solutions.

High resolution CCD array detector, 5 s can complete the detection, display the results.



With its own high-definition touch screen and control program, it can be detected 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.

The test data is transferred to your computer via USB flash memory for easy data sorting, analysis and storage.

Easy-to-use data to printer option, can print reports directly through the built-in printer.

Automatic detection and automatic blank function: automatically detect the sample concentration when the detection arm is lowered, which greatly shortens the detection time of large batches of samples.

FEATURES BGH1S3

User-Friendly Software, Easy to Use

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

Micro-Volumes Measuring

Only 0.5 μL -2 μL sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.

Long Life Light Source, Do Not Need to Warm Up

Xenon flash, life span is 10^9 (up to 10 years). No preheating, direct use, ready to test at any time.

High Concentration Detection

The maximum concentration of the detectable sample is 15000 ng/ μL , and the sample basically does not need to be diluted.

Convenient and Easy to Use

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

Fast Detection

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

Single Machine Operation, Convenient and Efficient

It is a fixed wavelength (260 nm, 280 nm, 365 nm) ultra-micro nucleic acid analyzer, which is used for routine analysis of micro sample testing and is a supplement to the full wavelength instruments.

Android system, 7-inch capacitive touch screen, no computer connection required.

LED light source, long life component.

It is mainly used to detect the concentration and purity of nucleic acid, and to detect the concentration of nucleic acid at 260 nm, the concentration of protein at 280 nm. The 260 / 280 ratio is used to measure purity.

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 for easy sorting and analysis.

Easy-to-use data printing options, can print the report directly through the built-in printer.

FEATURES BGH1S4

User-Friendly Software, Easy to Use

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

Micro-Volumes Measuring

Only 0.5 μL -2 μL sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.

Long Life Light Source, Do Not Need to Warm Up

Xenon flash, life span is 10^9 (up to 10 years). No preheating, direct use, ready to test at any time.

High Concentration Detection

The maximum concentration of the detectable sample is 15000 ng/ μL , and the sample basically does not need to be diluted.

Convenient and Easy to Use

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

Fast Detection

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

Single Machine Operation, Convenient and Efficient

Increase the optical path by 0.05 mm to make the detection of nucleic acid concentration up to 15,000 ng/ μL .

Fluorescence detection function is added to accurately determine the concentration of DNA samples below 5 ng/ μL . In the detection of double-stranded DNA, the detection limit can be up to 0.5 pg/ μL .

Automatic detection after putting down the arm.

The patented motor lifting 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 samples, especially suitable for precise quantification of protein samples.

Android system, 7-inch capacitive touch screen, optimized APP software.

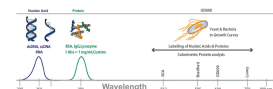
To detect the concentration of bacteria and microorganisms are more convenient with the OD600 function.
 High resolution CCD array detector, 6s can complete the detection and display results.
 Equipped with an HD touch screen, no need to connect to the computer.
 Long life pulse xenon lamp light source, intelligent identification of user usage. The light source will auto off after 5 minutes without any operation to extend service life.
 The detection data can be transferred to the computer through USB, which is convenient for data processing and analysis.
 Easy-to-use data printing options, can print the report directly through the built-in printer.
 Automatic detection and automatic blank function: automatically detect the sample concentration when the detection arm is lowered, which greatly shortens the detection time of large batches of samples.
 Life Science Detection.



New Fluorescence Detection Function:

Fluorescence detection combined with fluorescence quantitative analysis kit, 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). Nano500 can be compatible with common fluorescence quantitative reagents to provide users with the maximum convenience and minimum detection cost.

APPLICATIONS



Different Fluorescence Channels:

UV Channel:

Excitation wavelength: 365±20 nm

Common reagent: Hoechst 33258, 4-MU, EnzChek Caspase

Nucleic acid quantification, plant GUS reporter gene detection, apoptosis detection

Blue Channel:

Excitation wavelength: 460±20 nm

Common reagent: PicoGreen, oligreen, RiboGreen, GFP, Protein, Fluorescein

dsDNA, ssDNA, GFP, gene detection, fluorescein detection, protein quantification.

Green Channel:

Excitation wavelength: 525±20 nm

Common reagent: Rhodamine, Cy3, RFP Vybrant Cytotoxicity

Rhodamine detection, Cy-3 fluorescence labeling detection, RFP gene detection, cytotoxicity detection.

Red Channel:

Excitation wavelength: 625±20 nm

Common reagent: Cy5, Quant-iT RNA

Cy-5 fluorescence labeling detection, RNA quantification

MORE INFO

Fluorescence Detection Mode (Can Be Customized)

Model	Nano500U (optional)	Nano500 (standard)	Nano500G (optional)	Nano500R (optional)
Channel	UV	Blue	Green	Red
Excitation wavelength	365±20 nm	460±20 nm	525±20 nm	625±20 nm
Emission wavelength	420-480 nm (60 nm)	525-570 nm (45 nm)	575-640 nm (65 nm)	670-725 nm (55 nm)

Fluorescence Detection Mode - Specification

Parameter	Specification
Light source	LED
Dynamic range	5 orders of magnitude
Linearity	$R \geq 0.995$
Detector	Photodiode
Repeatability	$\leq 1.5\%$
Stability	$\leq 1.5\%$
Sensitivity	dsDNA: 0.5 pg/ μ L
Measurement speed	3 s (once)

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BIOPHOTOMETER



- High-quality flash Xenon lamp, longer service life.
- High resolution CCD detector, fast measurement (5s), high repeatability and accuracy.
- 7 inches LCD color touch screen, stand-alone system, no need for a PC.
- User-friendly operating system, module UI design, simple and clear.
- No need to dilute the sample, 1 μ L to 2 μ L is enough.
- Multi-functions: Nucleic acid, Protein, Kinetics, Spectrum scanning, End-point and OD600 measurement.
- Available to upgrade software by USB, low maintenance cost.
- Storage by USB, simple to retrieve test data.
- Two USB ports for data transmission and outer tools like mouse and keyboard.
- Smart and compact design, light and easy to move.

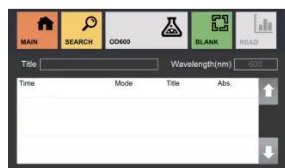
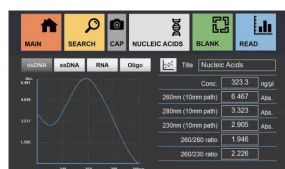
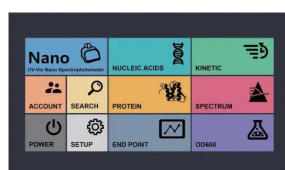
SPECIFICATIONS

Model	BEY1R1
Old Model	BSNA-206
Generation Specification	
- Light Source	Xenon Lamp
- Detector	CCD (2048 Pixels)
- Wavelength Range	190-1100 nm
- Wavelength Accuracy	± 1 nm
- Spectral Resolution	0.3 nm
- Dimension	230x290x220 mm
- Weight	3 kg
- Operating Voltage	12 V DC
- Power Consumption	18 W
Nano Volume Specification	
- Absorbance Precision	1% @ 100 ng/ μ L
- Absorbance Range	0-200 Abs (10 nm equivalent)
- Detection Limit	2 ng/ μ L (dsDNA)
- Max. Concentration	15000 ng/ μ L (dsDNA)
- Measurement Time	5 s
- Min. Sample Volume	1 μ L
- Path Length	0.01-1.2 mm (auto-ranging)
Cuvette Specification	

- Beam Height	8.5mm
Alt Name	Biophotometer

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