Micro Volume Spectrophotometer

IG-NanoQ Series

iGENE LABSERVE

Innovative • Interactive • Intuitive

FEATURES & SPECIFICATIONS

DESCRIPTION

NanoQ is wide wavelength microvolume spectrophotometer with modern design and user convenience UI. It supplies extremely fast and easy quantitative analysis of nucleic acid and protein by UV-VIS absorption spectrophotometry. It provides microvolume sample measuring mode and cuvette measuring mode so can measure wide range of concentration. You can easily set over 20 measuring mode.

FEATURES

* **Compact:** It is a small spectrophotometer featuring compact size and main unit control.
* **Maximization of user friendliness**: There is no need for a user manual since it provides a simple and intuitive user environment.
* **Cuvette Holder**: It can measure protein and conduct cell counting. *Cuvettes are only available in NanoQ Plus. Provide pedestal and cuvette measuring mode at NanoQ Plus model. But, do not provide cuvette measuring position at general NanoQ model.
* **LCD Touch Screen**: A user can easily operate the system using the intuitive LCD screen and touch functions. 7.0-inch, 1280 x 800 HD color display device The built-in capacitive touch LCD panel helps users operate it easily and conveniently.
* **Loading Guide**: It helps even novice users to drop the sample easily and accurately on the loading spot.
* **Date Management**: The measurement result can be saved or downloaded to a USB flash drive.
* **Auto Pathlength**: A user can conduct the measurement precisely because it can be automatically set the pathlength according to the concentration.
* **Create User Menu:** Can Add User Menu combined by user's most accessed measure mode.
* **Quick Boot**: There is no need for measurement standby since it does not require a lamp warming-up.

* **Full Spectrum Analysis** : NanoQ can measure the absorption spectrum UV-VIS (190 nm~850 nm) in seconds using by array type spectrophotometer technology with Xenon lamp and CMOS. sensor(2048 pixels). It also provide various algorithm like Peak/Valley detection.
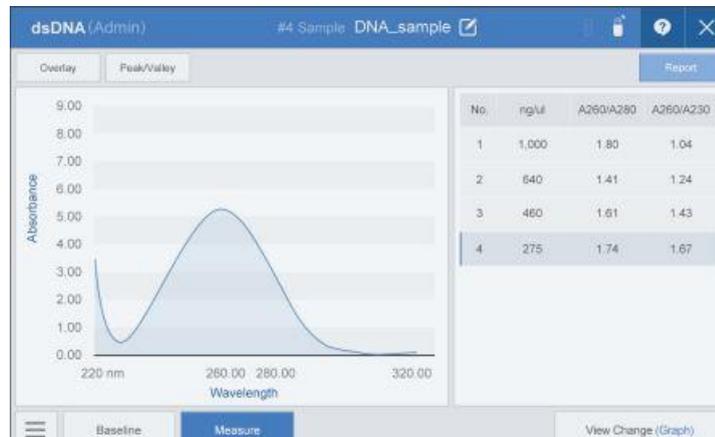
* There is no need for a user manual since it provides a simple and intuitive user environment. The designated factor is set as the default value for each mode, and the input mode is provided to allow the users to set a factor value which is different from the default. Users can specify the factor ppropriate for the user preference, the lab environment, and the type of protein.

Measurement menu configuration		
	Menu	Factor
Nucleic Acid (ng-cm/µℓ)	dsDNA	50
	ssDNA	33
	RNA	40
	miRNA	33
	Custom	Input
Protein (g-cm/ℓ)	BSA	1.5
	SA	1.49, 1.72
	IgG	0.71, 0.74
	IgE Human	0.65
	Lysozyme	0.38
	OD1	1
OD600	OD600	1

SPECIFICATIONS

Model	NanoQ (Full-Spectrum)	NanoQ Lite
Minimum Sample Size	1 µL	1 µL
Light source(s)	Xenon flash lamp	LEDs
Lifetime	Up to 10 years	Up to 10 years
Detector	CMOS linear image sensor (2048 pixels)	Silicon photodiode
Wavelength Range	190 - 850 nm	260, 280 nm / 600 nm(Cuvette) / 360 nm(Baseline)
Wavelength Accuracy	± 1 nm	± 1 nm
Spectral Resolution	1.0 nm (FWHM at Hg 253.7 nm)	≤ 8.0 nm
Absorbance Precision	0.002 A (0.5 mm path) or 1%	0.002 A (0.5 mm path)
Absorbance Accuracy	3% (at 0.97A at 302 nm)	3% (at 1A at 280 nm)
Absorbance Range	0.02 - 330 A (10mm equivalent)	0 – 40 A
Detection Limit (Microvolume)	2 ng/µL (dsDNA), 0.06 mg/mL (BSA), 0.003 mg/mL (IgG)	2 ng/µL (dsDNA), 0.06 mg/mL (BSA), 0.003 mg/mL (IgG)
Maximum Concentration	16,500 ng/µL (dsDNA), 400 mg/mL (BSA)	2,000 ng/µL(dsDNA), 60 mg/µL(BSA), 28.8 mg/µL(IgG)
Detection Limit (Cuvette) * Only NanoQ Plus	0.2 ng/µL (dsDNA), 0.006 mg/mL (BSA), 0.0003 mg/mL (IgG)	---
Photometric Range	0 - 2 A	Range(10 mm Equivalent) - Cuvette: 0~2 A
Center Height (Z-height)	15 mm	15 mm
Heating (Optional)	37 °C	---
Measurement Time	< 8 seconds	< 10 seconds
Software Compatibility	Windows® 7 and 10	---
Display	7-inch, 1280 x 800 HD color display	4.3-inch, 480 x 272 color display
Touchscreen	Multipoint capacitive touch	Resistive touch
CPU	Octa Core ARM® CortexTM-A53 Processor	---
Storage	32 GB Internal Storage	8 GB Internal Storage
Glove Compatibility	Compatible with lab gloves	Compatible with lab gloves
On-board Control	AndroidTM	Firmware
Connectivity	4 x USB ports, Ethernet, and RS-232	2 x USB ports, USB-B, and RS-232
Footprint (W x D)	216 x 290 mm	45 x 190 mm
Weight (kg)	3.0 kg	1.4 kg

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