MaestroNano

MICRO-VOLUME SPECTROPHOTOMETER

MAESTROGEN

MaestroNano is a specialized instrument for bio-chemical research , especially for micro-volume solution concentration measurement.

MaestroNano has a whole new technology of optical system design. There is NO optical fiber needed. Moreover, with the vertical slide design, the sample measuring area is more durable and stable.

MaestroNano has a reliable measurement range of concentration from 2 to 2000 (ng/μL) and has a great resistance for the interferences of ambient light to get more accurate measurement.

Specification

Measurement Sample Size	2 ul
Measurement Data Output	(A)OD230nm, OD260nm, OD280nm, OD320nm (B)Sample concentration (ng/ul) (C)OD260nm/OD230nm, OD260nm/OD280nm
Minimum Concentration	2 ng/ul (dsDNA), 1.6 ng/ul (RNA)
Maximum Concentration	2,000 ng/ul (dsDNA), 1,600 ng/ul (RNA)
Light Propagation Material	Quartz glass
Absorbance Range (10mm)	0.04 ~ 40
Pathlength	~0.5 mm
Measurement Time	< 5 sec
Operation System	Android OS (ver. 4.4.3)
LCD Resolution	7 inches, 1024(W)x 600(H) dots matrix
Light Source	Xenon flash lamp
Internal Storage	32GB
Data Output Interface	Thermal printer
Data Connection interface	1. Wi-Fi x 1 (USB dongle) 2. OTG USB x 1 (connected to PC to access) 3. Ethernet x 1 (RJ-45) 4. USB x 1
Maintenance	Auto diagnosis, Calibration Program, Fix pathlength
Operating Voltage	12 V
Dimensions	20(W) X 21(D) X 33(H) cm
Weight	3.5 Kg

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- **Focus on nucleic acid and protein**
  230nm/260nm/280nm/320nm
- **Convenient**
  2 µl sample only, measurement in less than 5 seconds
- **Accurate**
  High reproducibility and repeatability
- **User-friendly interface**
  Touch screen, USB, Wi-Fi, ethernet and QR code
- **All-in-one**
  Embedded computer and thermo printer
- **Low-cost operation**
  No plates or other consumables
- **Best concentration range**
  2 ng/µL~2,000 ng/µL (dsDNA) without dilution

- **Reliable, repeatable, and reproducible concentration**
  MaestroNano Pro does not intend to change light path-length during measurement to reduce frequency of calibration. Instead, MaestroNano Pro develops and offers an in-house mathematical algorithm to help users acquire more reliable, repeatable, and reproducible bio-chemical solution concentrations.
- **Non-optical-fiber design**
  With MaestroGen's new technology, non-optical-design, MaestroNano Pro can offer the high reliability in accuracy and prevent from the unavoidable issue caused by the attenuation of light intensity in the optical path when the device equipped with fiber-optic components as consumables.
- **High precision in the positioning of optical path**
  The height of optical path-length is precisely fixed in 0.5mm by fixed pin. Compared to other micro volume spectrophotometers, which need to be constantly calibrated to maintain the precision and to make the optical path length into position, MaestroNano Pro works with a metal cover that can "straightly" go up and down in y-axial via a reliable slider and that way contributes to the rigid positioning of the optical path length in y-axis and always to be perpendicular to the bottom quartz glass.

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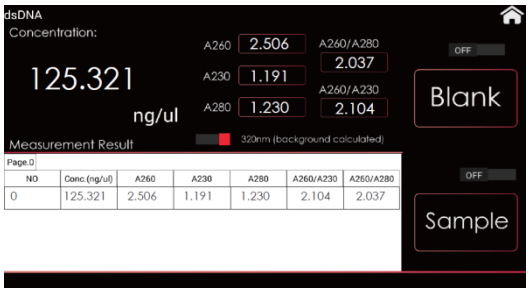

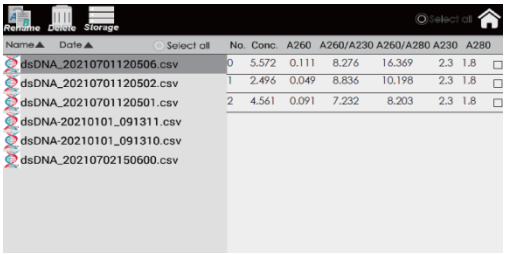

- **Accessible measurement results**
  The measurement results can be accessible via the embedded touch panel, thermal printer, USB storage as well as Wi-Fi transfer.
- **Adjustable light intensity contributes to the stable performance**
  In order to prevent from the impacts caused by the derivations in various environmental conditions, such as different ranges of temperature, humidity, latitude, etc., and to make sure the measurement for the same sample should be leaded to the same results, the adjustable light source provides with the adjustable voltage in intensity. With this new technology, user just needs two micro-liter of ddH_2O as the standard volume, and gets back to the stable performance again via the built-in calibration mode.
- **Compared to other spectrophotometers**
  There are some kinds of micro volume spectrophotometer for DNA, RNA and protein right now. But MaestroNano Pro is definitely the most special one. Most spectrophotometers use whole wavelength spectrum from 200nm to 900nm, need calibration by experts time to time, and install software in another stand-alone computer to operate. MaestroNano Pro provides a much better and more economical solution for most functions. By using the specific useful wavelengths (230/260/280/320nm) and automatic calibration, the embedding operating system offers an outstanding performance of accuracy and a much lower price compared to other spectrophotometers. Also, MaestroNano Pro is a "non-optical-fiber" system, which can contribute to the longer product life-time compared to others embedded with optical fiber as consumables.