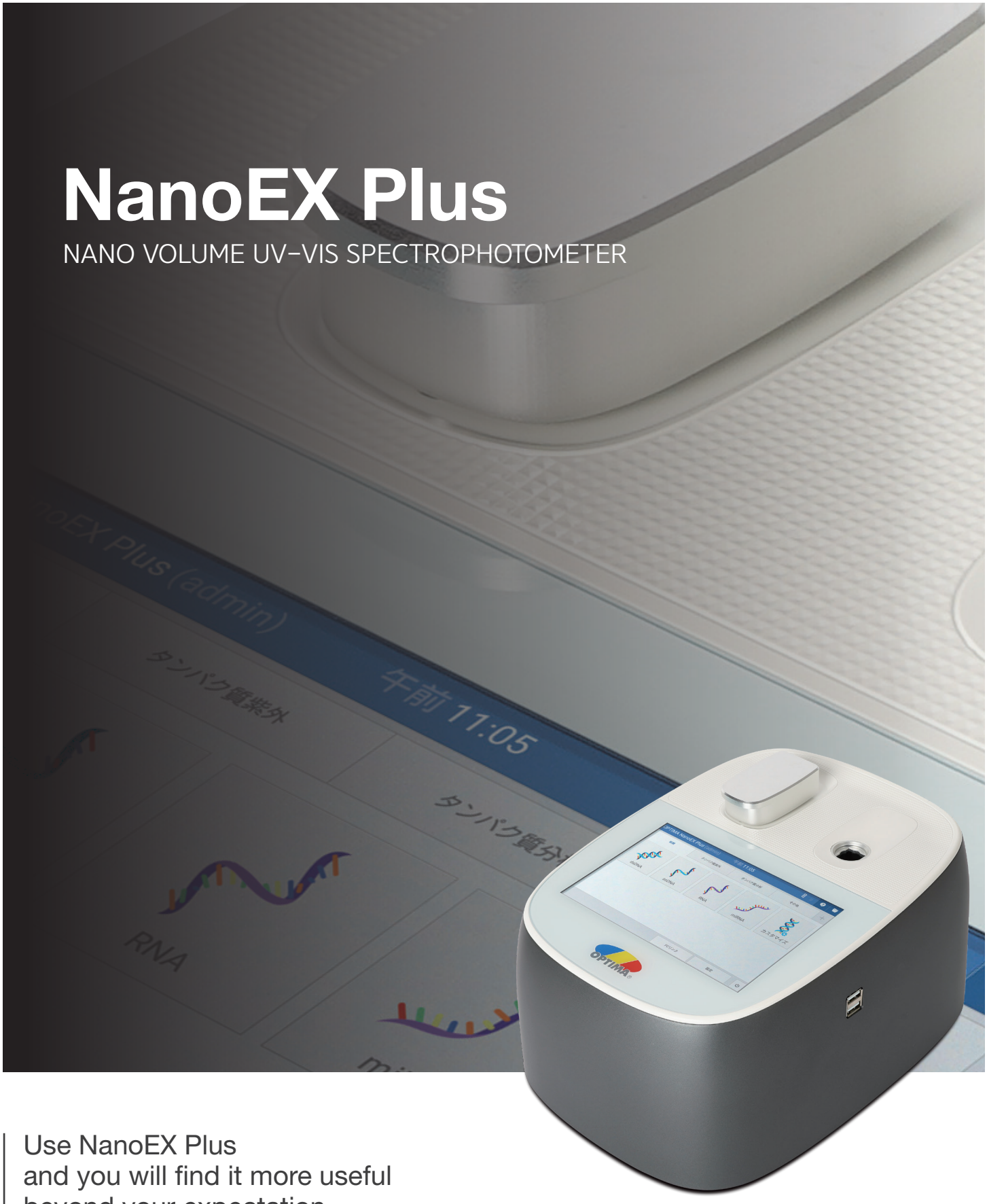
NanoEX Plus

NANO VOLUME UV-VIS SPECTROPHOTOMETER



Use NanoEX Plus
and you will find it more useful
beyond your expectation.

OPTIMA®

OPTIMA's Nano Volume Spectrophotometer

NanoEX Plus is a wide wavelength nano volume spectrophotometer with modern design and convenient user interface. It supplies extremely fast and easy quantitative analysis of nucleic acid and protein by UV-VIS absorption spectrophotometry.

It provides nano volume sample measuring mode and cuvette measuring mode, so you can measure wide range of concentration.

Measuring Mode : Nucleic Acid(dsDNA, ssDNA, RNA), Protein(Lysozyme, BSA, IgG), OD600, etc.

1

Compact

It is a small spectrophotometer featuring compact size and main unit control.

2

Auto Pathlength

A user can conduct the measurement precisely because it can automatically set the pathlength according to the concentration.

3

Create Favorite Menu

A user can create the favorite menu combined by user's most accessed measure mode.

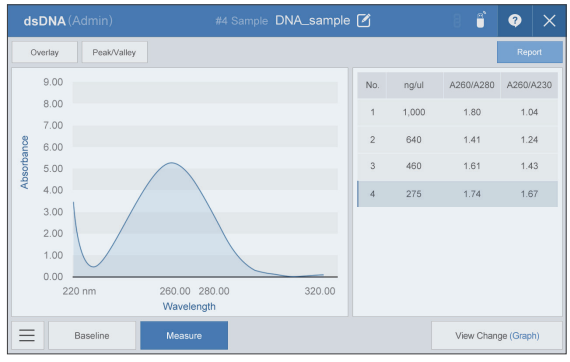
4

Quick Boot

There is no need for measurement standby because Xenon flash lamp does not require a lamp warming-up.

Full Spectrum Analysis

NanoEX Plus 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 provides various algorithm like Peak/Valley detection.



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.

Data Management

The measurement result can be saved or downloaded to a USB flash drive.

LCD Touch Screen

A user can easily operate the system using the intuitive LCD screen and touch functions.

Loading Guide

It helps even novice users to drop the sample easily and accurately on the loading spot.

Cuvette

NanoEX Plus can measure the absorption spectrum UV-Vis Fully.

Stand-Alone

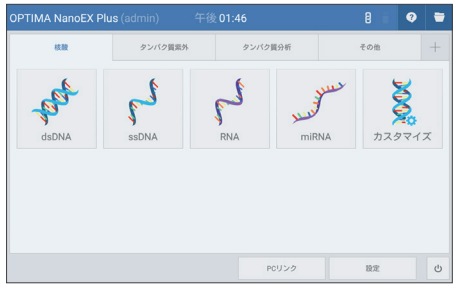
It does not need a separate computer since the main unit performs the control, and the measurement data can be saved in the equipment to improve the spatial utilization and economic efficiency.

Compact

The lightweight and small spectrophotometer features the dimensions of 216 x 290 x 153 mm and weight of 3.0 kg.

7.0 inch, 1280 x 800 HD color display device

The built-in capacitive touch LCD panel helps users operate it easily and conveniently.



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 appropriate 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

NanoEX Series SPECIFICATIONS

Product	NanoEX Plus(Full-Spectrum)	NanoEX Lite
Minimum Sample	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)	2 ng/µL (dsDNA)
	0.06 mg/mL (BSA)	0.06 mg/mL (BSA)
	0.003 mg/mL (IgG)	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)	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® Cortex™-A53 Processor	–
Storage	32 GB Internal Storage	8 GB Internal Storage
Glove Compatibility	Compatible with lab gloves	Compatible with lab gloves
On-board Control	Android™	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	145 x 190 mm
Weight (kg)	3.0 kg	1.4 kg

* The contents of this document may be changed without notice.

Made in JAPAN

World Headquarter

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