



# NV-200

## NANO VOLUME SPECTROPHOTOMETER

### One drop is enough...

#### Analysis of ultra-low Volumes of sample.

The perfect solution for DNA/RNA and Protein Analysis is the compact NV-200 Nano Volume Spectrophotometer.

The stand-alone instrument has a built-in 7inch LCD touch screen and user friendly operating system which is simple and clear to operate.

The analysis of multi-functions include: Nucleic Acid, Protein, Kinetic, Spectrum Scanning, End point and OD600



### FEATURES & FUNCTIONS

- High performance monochromator
- Long life Xenon lamp. quick warm up time
- High resolution CCD detector. Fast measurement
- Wavelength accuracy +/- 1.0nm.
- Instruments can be used with conventional 1cm cell holder or Nano volume. 1ul to 2ul is enough
- Sensitive 7inch touch screen offers high degree of automation requiring minimal key depressions to start analysis.
- Storage can be made by USB flash drive, simple to retrieve data.
- Stand alone analysis for photometric measurement, spectrum scans, quantitative determination, Kinetic scans, multi-wavelength measurement and Nucleic Acid DNA/Protein analysis.
- High speed spectrum reading (5 seconds)
- Compliance with GLP protocol.
- Simple mechanical structure and modular electronics make routine maintenance very easy.

### OPTICAL SYSTEM & COMPONENTS

High quality optical components ensure reliable analytical data with low stray light achieved using very low noise electronic circuits.

The single beam optics ensures good optical stability.

Pre-aligned Xenon light source delivers superior stability across the full wavelength range. The lamp is long life and easy to replace when required.

The modular design allows easy access to all optical surfaces which can be easily cleaned to maintain optimum reflectivity over the lifetime of the instrument.



Standard 1cm Cell Holder.



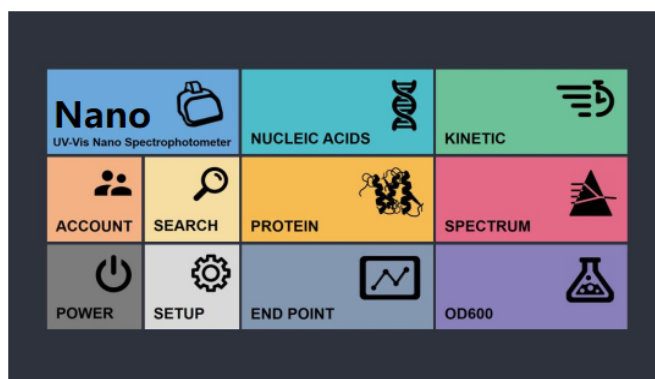
Nano Volume Pedestal.

### TOUCH SCREEN FEATURES

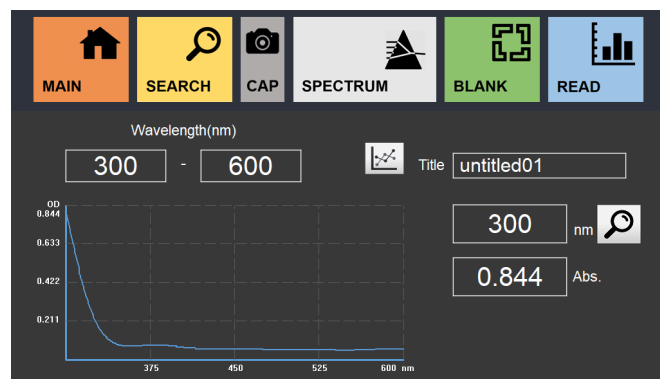
The instrument utilises a 7 inch smart touch screen with precise touch and a response time of less than 3ms. The high sensitivity screen has a strong stability and user brightness adjustability for easy reading in all light conditions.

After user log-in, the main home page will be shown as below. All measurement options can be selected from this home page.

A Spectrum Scan with a specified wavelength range can be carried out using a standard 1cm cuvette



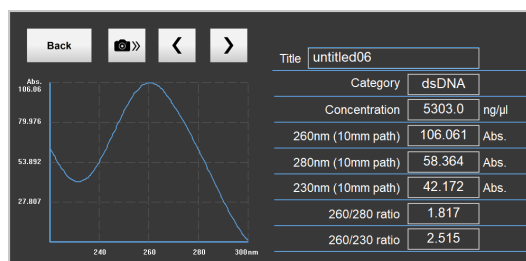
Home Screen



Spectrum Scan

Nucleic Acid Measurements include the following:

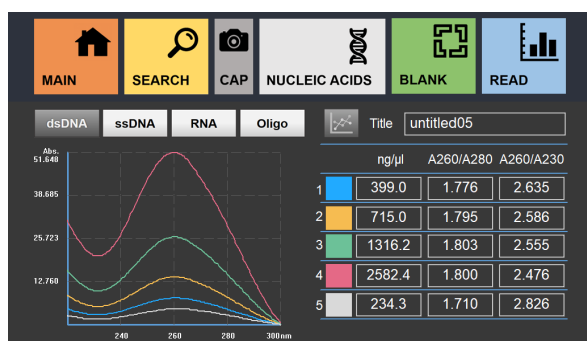
- Double-Stranded DNA Samples - dsDNA
- Single-stranded DNA Samples - ssDNA
- RNA Samples - RNA
- Oligonucleotide Samples - OLIGO



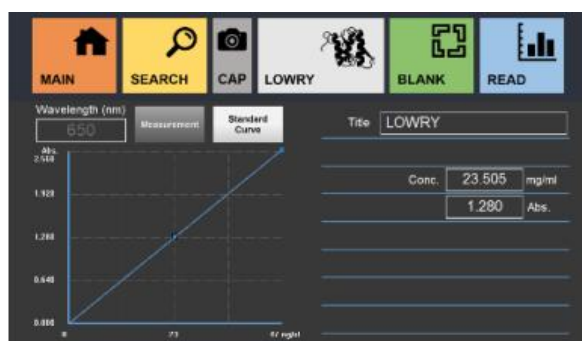
dsDNA Analysis



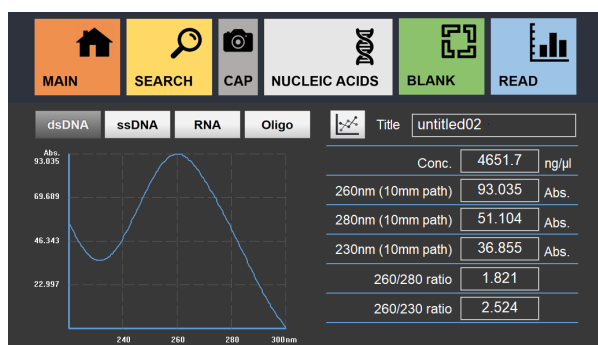
Bradford Analysis



Nucleic Acid Analysis Overlay



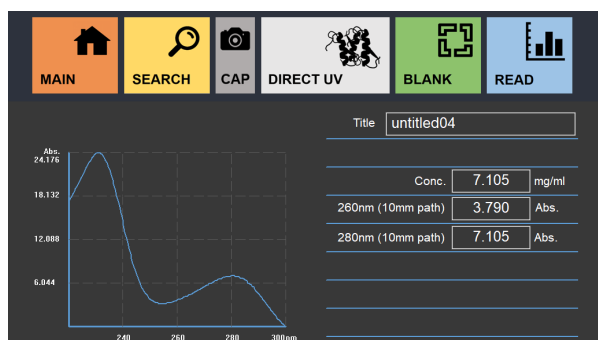
Lowry Analysis



Nucleic Acid Analysis



BCA Analysis



Direct UV Analysis



Buret Analysis

# Specifications

General Specifications	
Light Source	Deuterium Lamp
Detector	CCD (2048 Pixels)
Wavelength Range	190 nm - 1100nm
Wavelength Accuracy	± 1.0nm
Spectral Resolution	0.5nm
Dimensions	220 x 200 x 220mm
Weight	10kg
Power Supply	120 - 240VAC 50 - 60Hz
Power Consumption	10 - 100W
Specifications with Cuvette	
Beam Height	15mm
Absorbance Range	0.002 - 2.0Abs
Measurement Time	1s
Path Length	10mm
Specifications with Nano Volume	
Absorbance Precision	1% @ 100ng/μl
Absorbance Range	0 - 200Abs (10nm equivalent)
Detection Limit	2ng/μl (dsDNA)
Maximum Concentration	15000ng/μl (dsDNA)
Measurement Time	5s
Minimum Sample volume	1ul
Path Length	0.01 - 1.2mm (auto ranging)

**Each Unit is supplied with the following as standard:**

- 1 x NV-200 Nano Volume Spectrophotometer
- 1 x Pedestal Cover
- 1 x Black Block
- 1 x 10mm Cuvette
- 1 x Mains Power Cable
- 1 x Low Voltage Power Adaptor
- 1 x Spare Parts List
- 1 x User Operation Manual
- 1 x Qualification Document

