

thermo scientific



Intelligent analysis  
eight samples at a time

**Quantity. Quality. Speed.**

NanoDrop Eight Microvolume UV-Vis Spectrophotometer

**ThermoFisher**  
SCIENTIFIC







# Quantify with confidence

Thermo Scientific™ NanoDrop™ Microvolume UV-Vis Spectrophotometers have been trusted by scientists worldwide for over 20 years. The ease with which a concentrated DNA, RNA, or protein sample can be measured without dilution has made NanoDrop instruments as common in labs as a cup of coffee and a cell phone.

Our next generation 8-channel NanoDrop Eight Spectrophotometer offers enhanced capabilities so you can be sure samples are right for downstream assays:

- ▶ **Expanded detection limits** – up to 10,000 ng/μL of dsDNA and 145 mg/mL of IgG
- ▶ **Intelligent analysis** – software provides concentration AND identifies and corrects for common impurities found in nucleic acid and protein samples
- ▶ **Pharma ready** – optional 21 CFR Part 11 software makes compliance easy, and data output is ready for LIMS integration



# Right the first time

The power of NanoDrop Eight Spectrophotometers is boosted by Thermo Scientific™ Acclaro™ Sample Intelligence technology. This software identifies impurities and provides corrected concentrations so downstream reactions can be successful the first time.

## *Acclaro Contaminant Identification* ensures samples are high quality

Sample contamination can inhibit downstream reactions or falsely elevate calculated concentrations, which can create uncertainty in experimental results. That can mean wasted time, effort and resources. Acclaro technology ensures samples are high quality so downstream efforts can be successful and costly rework is avoided.

- Acclaro technology is built into the dsDNA, RNA, and Protein A280 applications to identify and correct for copurified contaminants in samples

### Contaminants Identified

| dsDNA         | RNA                      | Protein A280 |
|---------------|--------------------------|--------------|
| Protein       | Protein                  | DNA          |
| Phenol        | Phenol                   |              |
| Guanidine HCL | Guanidine Isothiocyanate |              |
| Mammalian RNA | Mammalian DNA            |              |

- Acclaro technology provides corrected analyte results for more accurate concentrations



Acclaro software identifies phenol contaminating a dsDNA sample. Corrected dsDNA concentration is less than half that of the original value.

# Every second counts

Quantifying your sample doesn't have to take long. The NanoDrop Eight Spectrophotometer measures 8 microvolume samples in 20 seconds or less and a 96-well plate in under 6 minutes. Plus there are more enhancements to speed up your analyses.

► **Automatic measurements** – The Auto-Blank and Auto-Measure features built into the NanoDrop Eight Software initiate the sample measurement as soon as the arm is lowered.

► **Ergonomic ambidextrous pipetting** – The pedestal array is aligned perpendicular to the front of the instrument creating a natural pipetting motion for users; the pipette guide is magnetic and movable from side-to-side allowing left- and right-handed users to quickly and comfortably dispense samples

► **Sample position illuminator** – Never confuse which samples need to be measured next; the LEDs in the sample position illuminator light up to keep measurements on track

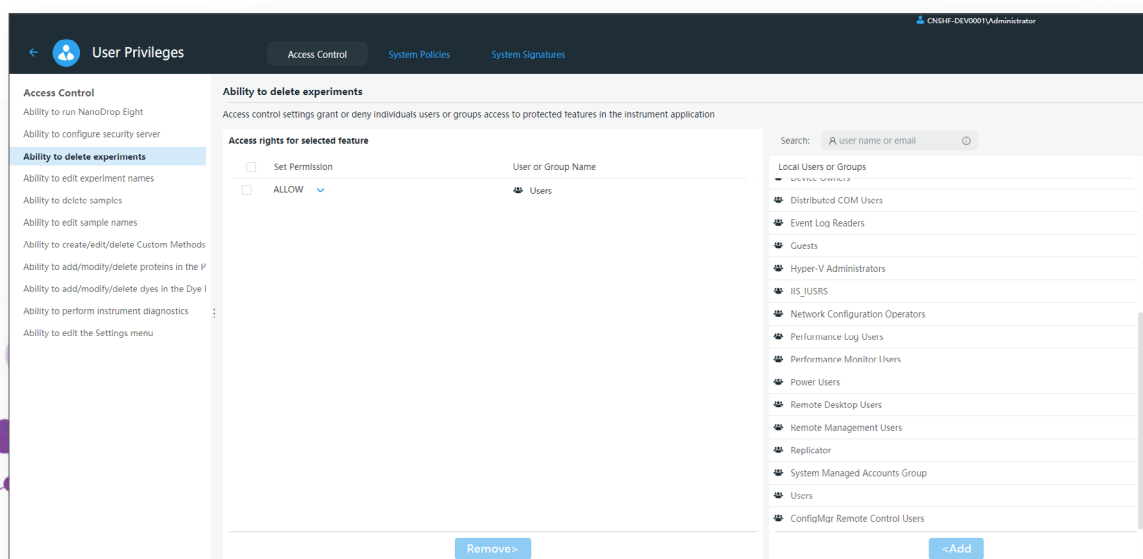




# Regulatory compliance made easy

Ensuring the integrity of scientific data can be required from pharmaceutical and biotech companies to biobanks and academics working on clinical trials. Optional Thermo Scientific™ SciVault™ Software helps your lab stay compliant with federal data regulations every step of the way.

- ▶ **Streamline management** – Optional SciVault Software integrates into NanoDrop Eight Software user interface
- ▶ **Comply with US FDA 21 CFR Part 11** – Control user account access, apply digital signatures, and review audit logs
- ▶ **Network multiple instruments** – Install SciVault Software on a central computer to control privileges and view audit logs across multiple NanoDrop Eight Instruments in different labs
- ▶ **Validate your systems** – IQ/OQ documents and services available to confirm your instrument is running within manufacturer's specifications



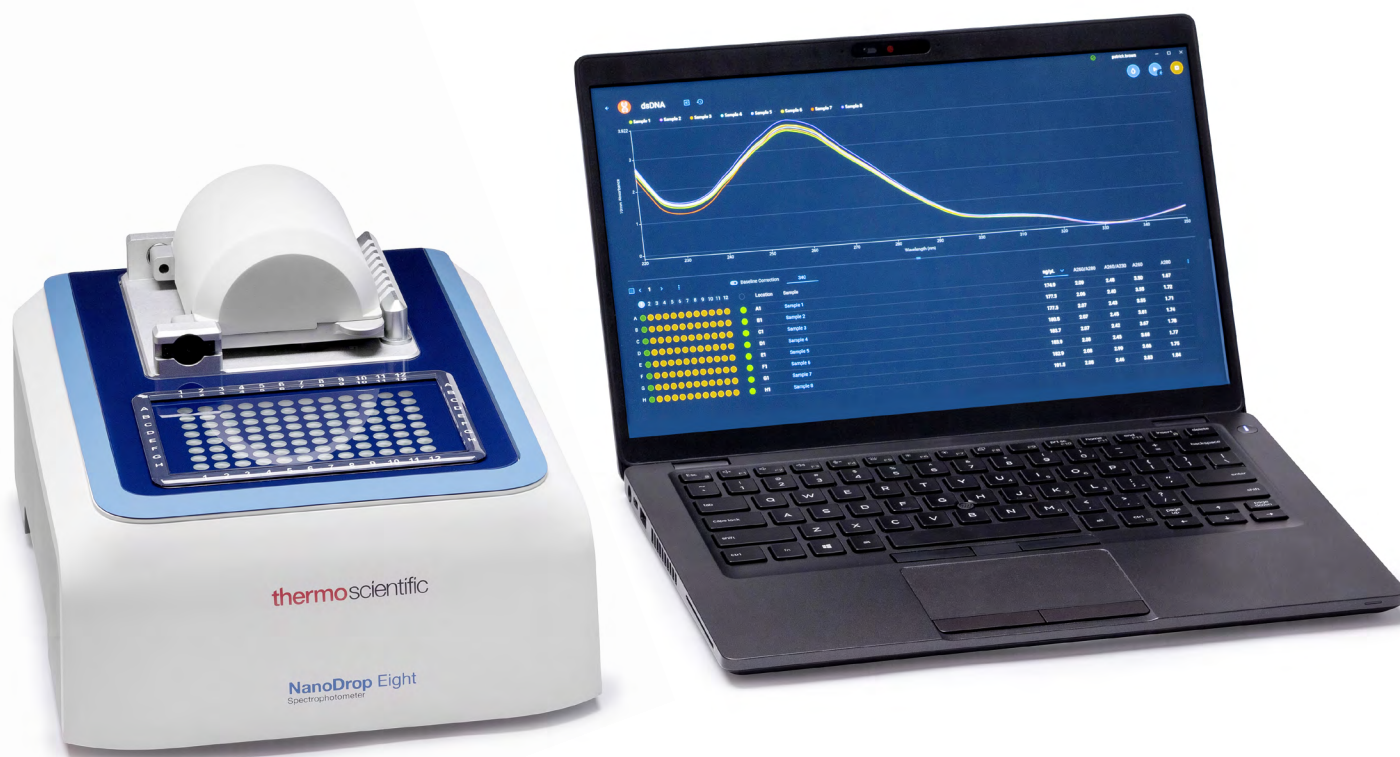
# Software updates make your lab time more productive



- › **Ready to start** – NanoDrop Eight Software comes hard-coded with the most frequently used measurement applications including dsDNA, RNA, Protein A280, and UV-Vis. Optional 21 CFR part 11 software is also immediately available for the instrument.
- › **Always improving** – user input keeps NanoDrop Software constantly moving forward with updates that deliver greater capabilities and efficiencies in the lab. Visit [thermoscientific.com/nanodrops](https://thermoscientific.com/nanodrops) to see and download the latest software applications. Register your instrument there as well so you won't miss any enhancements.

## Data comes together the way you want

Laboratory Information Management Systems (LIMS) are an increasingly popular way to manage data generated by multiple instruments across different platforms. NanoDrop Eight Software exports data in formats easily captured by industry-leading LIMS software including Thermo Scientific™ Sample Manager™ and LabWare LIMS®.

- › **Data flexibility** – format files to include absorbance data, report data, or both
- › **Universal file formats** – data can be output as tab-separated values (.tsv) or comma-separated values (.csv)
- › **Automated exports** – set a directory for data to be automatically exported; have your LIMS software sweep the folder to pull in NanoDrop Eight instrument data for archiving



| Technical specifications           |             |   |
|------------------------------------|-------------|---|
| Minimum sample volume              |             | 1 µL  |
| Limit of detection                 | dsDNA (RNA) | 2.0 ng/µL (1.6 ng/µL)   |
|                                    | BSA (IgG)   | 0.06 mg/mL (0.03 mg/mL)   |
| Maximum concentration              | dsDNA (RNA) | 10,000 ng/µL (8,000 ng/µL)  |
|                                    | BSA (IgG)   | 300 mg/mL (145 mg/mL)   |
| Measurement & data processing time |             | 8 samples in ≤ 20 sec   |
| Measurement repeatability          |             | Typical: 0.002 A (1.0 mm path) or 1%CV, whichever is greater  |
| Wavelength                         | Range       | 190 – 850 nm  |
|                                    | Accuracy    | ± 1 nm  |
| Photometric                        | Range       | 0.04 – 200 Abs (10 mm equivalent)   |
|                                    | Accuracy    | 3% at 0.97 A, 302 nm, 23 ± 2C°  |
| Resolution (spectral bandwidth)    |             | ≤ 1.8 nm (FWHM at Hg 254 nm)  |
| Pathlengths                        |             | 1.0 mm, 0.2 mm, 0.1 mm (automatically adjusting)  |
| Light source                       |             | Xenon flash lamp  |
| Detector                           |             | 2048-element CMOS linear image sensor   |
| Dimensions (W x D x H)             |             | 24 cm x 33 cm x 17 cm (9.4 in x 13 in x 6.7 in)   |
| Weight                             |             | 3.7 kg (8.2 lbs)  |
| Operating voltage                  |             | 12 VDC  |
| Power consumption                  |             | 3W at Idle; 15W at Working Conditions   |
| Connectivity                       |             | USB 3.0 Port  |
| PC software requirements           |             | Microsoft Windows® 10 Version 1607 Professional or Enterprise   |
| Application support at launch      |             | dsDNA, RNA, Custom Factor, Protein A280, UV-Vis   |
| Language support at launch         |             | English, Chinese   |

## Ordering information

| Description   | Part numbers |
|---|--------------|
| <b>Instruments and bundles</b>  |              |
| NanoDrop Eight Microvolume UV-Vis Spectrophotometer global<br>(requires country-specific power cord; contact your local sales representative) | 912A1099     |
| NanoDrop Eight Microvolume UV-Vis Spectrophotometer (with US-Canada power cord)   | 912A1100     |
| NanoDrop Eight Microvolume UV-Vis Spectrophotometer (with China power cord)   | 912A1101     |
| <b>Accessories</b>  |              |
| Performance Verification Kit  | CHEM-PV-8    |
| NanoDrop Eight Microvolume UV-Vis Spectrophotometer IQ/OQ – US Paper Size   | 840-371200   |
| NanoDrop Eight Microvolume UV-Vis Spectrophotometer IQ/OQ – A4 Paper Size   | 840-371300   |
| SciVault Software for NanoDrop Eight  | 840-371100   |

Find out more at [thermofisher.com/nanodrop](https://thermofisher.com/nanodrop)

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