

# NanoDrop One Microvolume UV-Vis Spectrophotometers

## Intelligent microvolume analysis

Thermo Scientific™ NanoDrop™ One microvolume UV-Vis Spectrophotometers quantify and qualify DNA, RNA, and proteins in seconds using only 1–2  $\mu\text{L}$  of sample.

NanoDrop One Spectrophotometers are built with Thermo Scientific™ Acclaro™ Sample Intelligence technology that helps you understand the quality of your sample before using it in downstream applications. With contaminant analysis, sample information alerts and on-demand technical support, the Acclaro technology brings a new level of confidence in results, making NanoDrop One the ideal UV-Vis spectrophotometer for life science researchers.



Easily transfer data from NanoDrop One standalone instrument to your computer via a USB device.

### Pipette. Measure. Know.

Expect NanoDrop reliability and enhanced performance with these NanoDrop One advantages:

- **Fast and easy evaluation** of nucleic acids and proteins with Auto-Measure and pre-programmed applications
- **Modern standalone design** with local control and high-resolution touchscreen interface saves bench space
- **Accurate measurements up to 27,500 ng/ $\mu\text{L}$**  (dsDNA) with extended auto-range pathlength technology
- **No consumables needed** – pipette directly onto the pedestal sample-retention system
- **Enhanced connectivity with data transfer** via USB, Ethernet, Bluetooth® and Wi-Fi options; PC software available for data management
- **Optional cuvette position** for measuring dilute solutions and performing temperature sensitive experiments

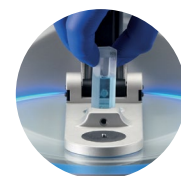
### Know more with Acclaro Sample Intelligence Technology

Make informed decisions on sample suitability for your application. Acclaro technology offers enhanced sample analysis with:

- Contaminant identification and corrected results
- Instant feedback about sample quality with on-demand technical support and guided troubleshooting
- Embedded sensor and digital image analysis that ensures measurement integrity


### Add a Cuvette Position

The Thermo Scientific™ NanoDrop™ One<sup>C</sup> Spectrophotometer adds experimental flexibility and increases the dynamic range. Use cuvettes to measure dilute samples and optical density of bacterial cultures or to perform kinetics experiments. Includes cuvette temperature control and stirring.



## Technical Specifications

Instrument Control		Built-in touchscreen
Minimum Sample Volume		1 $\mu$ L
Limit of Detection	dsDNA	Pedestal: 2.0 ng/ $\mu$ L Cuvette: 0.2 ng/ $\mu$ L
	BSA (IgG)	Pedestal: 0.06 (0.03) mg/mL Cuvette: 0.006 (0.003) mg/mL
Maximum Concentration	dsDNA	Pedestal: 27,500 ng/ $\mu$ L
	BSA (IgG)	Pedestal: 820 (400) mg/mL
Measurement and Data Processing Time		8 seconds
Measurement Repeatability <sup>1</sup>		Typical: 0.002 A (1.0 mm path) or 1%CV, whichever is greater
Wavelength	Range	190–850 nm
	Accuracy	$\pm$ 1 nm
Photometric	Range (10 mm equivalent)	Pedestal: 0–550 A Cuvette: 0–1.5 A
	Accuracy <sup>2</sup>	3% at 0.97 A, 302 nm
Resolution (Spectral Bandwidth)		$\leq$ 1.8 nm (FWHM at Hg 254 nm)
Pathlength		0.030 to 1.0 mm auto-ranging
Light Source		Xenon flash lamp
Detector		2048-element CMOS linear image sensor
Dimensions (W $\times$ D $\times$ H)		20 $\times$ 25.4 $\times$ 32.3 cm (8 $\times$ 10 $\times$ 12.7 in.)
Weight		3.6 kg (7.9 lbs.)
Operating Voltage		12 V (DC)
Power Consumption		Operating: 12–18 W Standby: 5 W
Stirring (cuvette only)		9 speeds
Temperature Control (cuvette only)		37 $^{\circ}$ C

On-Board Control	Operating System	Android™
	CPU	Quad Core ARM® Cortex™-A9 Processor
	Display	7-inch, 1280 $\times$ 800 high-definition color display
	Touchscreen	Multipoint capacitive touch
	Gesture Recognition	Single point, single point hold, swipe and pinch
	Glove Compatibility	Compatible with lab gloves
	Internal Storage	32 GB flash memory
Audio		Built-in speaker
Connectivity	Three USB-A ports, Ethernet, Bluetooth and Wi-Fi <sup>3</sup>	
PC Software Requirements	Windows® 7 and 10, 64 bit	
Accessory Support	DYMO® LabelWriter® 450 printer, Bluetooth keyboard, mouse and barcode reader	
Applications Support	Nucleic Acid A260, A260/A280, A260/A230 and Labeled Nucleic Acids; Protein A280 and A205, Protein Pierce 660, Protein Bradford, Protein BCA, Protein Lowry, Labeled Proteins, OD600, Kinetics, UV-Vis, and Custom Methods	
Language Support	Chinese, French, German, Japanese, Korean, Polish, Spanish, English	
		

<sup>1</sup> SD of 10 individual measurements at 0.97 A

<sup>2</sup> Absorbance expressed at Abs/mm at 25  $^{\circ}$ C

<sup>3</sup> Only available on instruments with Wi-Fi/Bluetooth support

## Ordering information

Instruments	Part number
NanoDrop One spectrophotometer (Pedestal position only)	ND-ONE-W4
NanoDrop One <sup>c</sup> spectrophotometer (Pedestal and cuvette positions)	ND-ONEC-W4
Accessories and consumables	
NanoDrop One Productivity kit (Contains: 0.2–2.0 $\mu$ L pipette, screen wipe, USB device, PR-1 kit, and PV-1 solution)	ND-PP1
NanoDrop One <sup>c</sup> Productivity kit (Contains: 0.2–2.0 $\mu$ L pipette, screen wipe, USB device, PR-1 kit, PV-1 solution, stir bars, and quartz cuvette)	ND-PP1C
Dymo LabelWriter 450 printer with labels	PNTR-LW400
PR-1 Reconditioning Compound kit	CHEM-PR1-KIT
PV-1 Performance Verification solution	CHEM-PV-1

<sup>4</sup>Wi-Fi model not available in all countries. Please contact your NanoDrop distributor to confirm the correct part number in your region.

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

**ThermoFisher**  
SCIENTIFIC

**For Research Use Only. Not for use in diagnostic procedures.** © 2020 Thermo Fisher Scientific Inc. All rights reserved. Android is a trademark of Google Inc. ARM is a registered trademark and Cortex-A9 is a trademark of ARM Limited. Bluetooth is a registered trademark of Bluetooth SIG, Inc. DYMO is a registered trademark of Esselte Corporation. LabelWriter is a registered trademark of DYMO Corporation. Windows is a registered trademark of Microsoft Corporation. All other trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.  
PS52754\_E 0220