

# DeNovix®



## DS-11 Series

*The World's Most Sensitive  
Microvolume Spectrophotometer*



Patent US9442009

- Full Spectrum UV-Vis
- Integrated Fluorescence
- Powerful Sample QC
- Flexible Export, Wi-Fi, Email, Ethernet, USB



**Reviewers' Choice  
Life Science Product of the Year**

*Recommended by Scientists Worldwide*




# DeNovix DS-11 Series: Confident Quantification


## 2017 Reviewers' Choice Life Science Product of the Year

Since 2013 DeNovix has shipped thousands of instruments to customers worldwide. We deliver innovative, easy-to-use, highly precise instruments with customer service that is second-to-none. We are proud to receive more five star rating customer reviews than any other spectrophotometer. Our experienced team and technical advisory board includes scientists, engineers and founding members of NanoDrop Technologies, Inc. We stand behind our USA-made products with an industry leading three-year factory warranty on all DS-11 Series instruments.





### Microvolume Absorbance

 0.5 to 1µL  
Full spectrum UV-Vis  
0.75 – 37500 ng/µL dsDNA

### Cuvette Absorbance

 Full spectrum UV-Vis  
Standard quartz and disposable cuvettes  
0.04 – 750 ng/µL dsDNA


### Flexible Export

-  Email
-  Network and label printers
-  USB
-  Network Drives


### Color Options




### Fluorescence

0.5 mL thin-wall PCR tubes  
Four channels for superior flexibility  
0.0005 – 4000 ng/µL dsDNA 


### Network Connectivity

Wi-Fi & Ethernet   
Safe and easy networking

### Powerful Data Handling

Automatically store results   
Search, report and graph saved data

### Sample Contamination Alerts

SmartQC™ monitors samples and reports contamination 



## Multiple Models, Unmatched Sensitivity and Widest Dynamic Range

DeNovix offers a choice of models to meet your current and future research needs. Simply select the integrated instrument that includes your desired combination of microvolume absorbance, cuvette absorbance and fluorescence. The DS-11 Series delivers best-in-class detection limits and dynamic range saving analysis time and bench space with instruments that fit your applications.

	DS-11 FX+	DS-11 FX	DS-11 +	DS-11	DS-C	QFX
Microvolume	●	●	●	●		
Cuvette	●		●		●	
Fluorescence	●	●	○	○	○	●

# Integrated UV-Vis and Fluorescence Modes

## Microvolume - Rapid 1uL UV-Vis Measurements

DeNovix Spectrophotometers quantify nucleic acids and protein using only 0.5 – 1.0  $\mu$ L of sample. Just pipette and measure - no dilutions necessary. Instant on-screen results include concentration, a full spectrum output, purity ratios and SmartQC™ contamination alerts. DeNovix SmartPath® Technology ensures instruments are calibrated for life with no drift or service downtime. Bridge Testing® eliminates broken samples columns and ensures exceptional results, even for 1  $\mu$ L protein samples.

## Cuvette - Improved Detection Limits and Functionality

Use standard quartz or disposable cuvettes for up to 10 mm pathlength absorbance measurements (190-840 nm). Cuvette applications include nucleic acids, proteins, colorimetric assays, OD600 and custom standard curves. Systems include a cuvette block heater for Kinetics studies from 37-45°C.

## Fluorometer – Sensitive, Specific Quantitation

The lower detection limit of dsDNA and other biomolecules may be improved 1000x when using fluorescent techniques. Specialized assay chemistries enable highly sensitive and molecule specific quantification, e.g. measuring only dsDNA in samples containing RNA and other contaminants. DeNovix fluorometers can be used with most commonly available fluorescence kits including DeNovix dsDNA Fluorescence Assays and Qubit® Assays.

### Scientist Recommended

“The machine is excellent. I strongly recommend it to others.”

Rating: 5.0 ★★★★★

“I love it, because of the accuracy and convenience.”

Rating: 5.0 ★★★★★

“Best machine in my lab.”

Rating: 5.0 ★★★★★

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## Software by Life Scientists, for Life Scientists

Built-in EasyApps® and our breakthrough Android™ operating system make DeNovix instruments easy to learn and quick to use. Our software is ready to use right out of the box. No PC set-up or software installation is required.



**Nucleic Acid Quantification**  
dsDNA, RNA, ssDNA



**Fluorescence Nucleic Acid Quantification**  
DeNovix, Qubit®, Quantus® and custom assays



**Protein and Peptide Quantification**  
BSA, IgG, Custom proteins



**Fluorescence Protein Quantification**  
Commonly used kits and custom assays



**Colorimetric Assays**  
Bradford, BCA, Lowry, Pierce 660



**Basic Fluorometer**  
Pre-configured and user-defined fluorophores



**Kinetic Assays**  
Fully customizable, 37-45°C



**User Accounts**  
Password protect data, methods and settings



**OD600 Microbial Cell Cultures**  
Optical density and cell/mL calculations



**Data App**  
Store and search millions of results

# Extended Product Line

## QFX Fluorometer

Affordable, ultra-sensitive four-channel fluorometer with software pre-installed for commercially popular assays. Includes full network connectivity.



## DS-C Spectrophotometer

Cuvette-only instrument for UV-Vis applications (190-840 nm). Intuitive operation, full network connectivity and pre-installed EasyApps for rapid quantification.



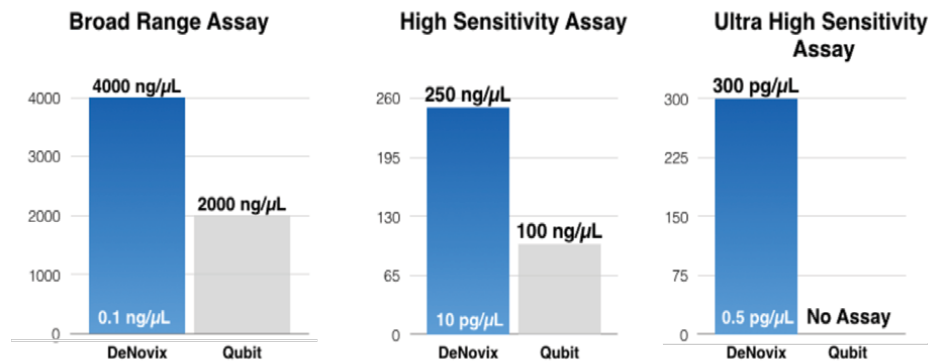
## FX Fluorometer Module

Add the USB connected FXModule to any DS-11 Series Spectrophotometer to enable all DeNovix Fluorometer apps. Features the same sensitivity and four-channel flexibility as the DS-11 FX+, DS-11 FX and QFX.



## DeNovix Fluorometers and Assays Combine for Unmatched Sensitivity

DeNovix fluorometers combined with DeNovix dsDNA assays outperform equivalent Qubit® kits in both sensitivity and dynamic range. DeNovix offers three ranges of sensitivity and kit sizes. Each assay is a simple mix-and-measure, 2-point standard protocol. The breakthrough DeNovix dsDNA Ultra High Sensitivity Assay enables rapid and specific quantification to 0.5 pg/μL dsDNA.



### Spectrophotometer Microvolume Mode (DS-11, DS-11+, DS-11 FX, DS-11 FX+)

Minimum Sample Size	0.5 μL
Pathlength	0.5 mm (auto ranging to 0.020 mm)
Light Source	Pulsed Xenon flash lamp
Detector Type	2048 element CCD
Wavelength Range	190 - 840 nm
Wavelength Accuracy	0.5 nm
Absorbance Precision	0.002 AU (0.5 mm) or 1%, whichever is greater
Absorbance Accuracy	1.5% at 0.75 AU at 260 nm
Spectral Resolution	1.50 FWHM @253.65 nm
Absorbance Range	0.015 – 750A (1 cm)
Detection Limit	0.04 mg/mL BSA; 0.75 ng/μL dsDNA
Maximum Concentration	1125 mg/mL BSA; 37500 ng/μL dsDNA
Measurement Time	2 seconds
AutoRun Function	Yes
Power Consumption	10 W (max 30 W)
Contaminant Detection	SmartQC™ Sample Guidance

### Spectrophotometer Cuvette Mode (DS-11+, DS-11 FX+, DS-C)

Beam height	8.5 mm
Heating	37 - 45°C +/- 0.5°C
Pathlength	10, 5, 2, 1, 0.5, 0.2, 0.125 mm
Detection Limit	0.002 mg/mL BSA (1cm) 0.04 ng/μL dsDNA (1cm)
Maximum Concentration	75.0 ng/μL dsDNA (1cm)

### Fluorometer Mode (DS-11 FX, DS-11 FX+, QFX, FX Module)

LED Sources	UV (375 nm), Blue (470 nm), Green (525 nm), Red (635 nm)
Excitation Filters	UV (361-389 nm), Blue (442-497 nm), Green (490-558 nm), Red (613-662 nm)
Emission Filters	435-485 nm, 514-567 nm, 565-650 nm, 665-740 nm
Detectors	Photodiode, detection range 300-1000 nm
Tube Type	0.5 mL thin-wall PCR tubes

### Onboard Controller (No PC required)

Operating System	Custom Android OS
CPU	TI OMAP Dual Core ARM Processor
Display	1280 X 800 high definition color display
Touch Screen	Projective capacitive
Gesture Recognition	Multipoint touch, swipe, pinch
Glove Compatibility	All common lab gloves
Internal Storage	32 GB flash memory (QFX - 8GB)
Audio	Built-in speaker
Connectivity	Wi-Fi, Ethernet, 3 USB ports
Accessories	USB printer; barcode reader, keyboard, mouse

### General

Weight	2 kg
Footprint	20 cm X 33 cm
Operating Voltage	12 VDC
Approvals	UL/CSA, CE, FCC, Japan CAB
Manufacture Location	USA
Warranty	3 Year Standard
Patented Design	US9442009. Apparatus and Method for Making Optical Measurements of Samples

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