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Multiskan Sky Microplate Spectrophotometer

Take your photometric research to new heights

ThermoFisher SCIENTIFIC

Multiskan Sky Microplate Spectrophotometer: redefining photometry

The Thermo Scientific™ Multiskan™ Sky Microplate Spectrophotometer is a new-generation instrument designed for the ultimate user experience. By introducing an attractive user interface that is optimized for touch-screen use and offers multiple connectivity options, we offer refined photometry in life sciences research and bring unmatched versatility to academic, biotech, and pharmaceutical laboratories.

Photometric measurement made impeccable

The Multiskan Sky Microplate Spectrophotometer is exceptionally convenient and easy to use for virtually any photometric research application, especially nucleic acid and protein analyses. It is ideal for multi-user environments where a variety of endpoint, kinetic, and spectral assays are run. Results are provided quickly and presented conveniently on Multiskan Sky Microplate Spectrophotometer models with touch screens. These touch-screen models offer multiple connectivity options including unique access to Thermo Fisher Connect cloud-based tools. Additionally, the intuitive Thermo Scientific™ SkanIt™ PC software addresses even the most challenging applications. Multiple languages are available whether the instrument is operated via the touch screen or SkanIt software.

Multiskan Sky Microplate Spectrophotometer instruments are available in three different configurations

Multiskan Sky Microplate Spectrophotometer with Cuvette and Touch Screen*

- Offers flexibility to use the instrument as stand-alone or with the SkanIt PC software
- Offers additional cuvette reading functionality

Multiskan Sky Microplate Spectrophotometer with Touch Screen*

- Offers flexibility to use the instrument as stand-alone or with the SkanIt PC software

Multiskan Sky Microplate Spectrophotometer, operated only with the SkanIt PC software

- Ideal for users who rely on PC for all operations

* Allows access to Thermo Fisher Connect cloud-based capabilities. Can be connected to the local area network.

Elevate the photometric assay experience

Why limit your assay repertoire to only a few wavelengths?

With the Multiskan Sky Microplate Spectrophotometer, you can switch between assays, measuring photometric signals between 200 to 1000 nm. Instead of filters, this instrument uses a monochromator system with a proven optical design that helps ensure excellent sensitivity and unparalleled results. A full spectral scan can be run in just 10 seconds at 1 nm increments. The narrow measurement bandwidth helps ensure excellent spectral resolution.

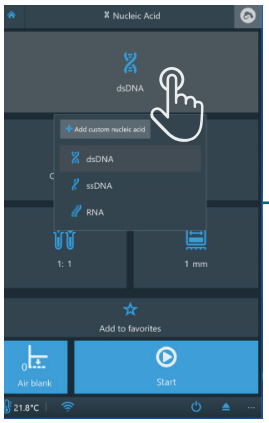
Access proven performance and high-quality data, every day

The optical system in Multiskan Sky Microplate Spectrophotometer ensures consistent and high-quality performance. This system has been extensively validated in the Thermo Scientific™ Multiskan™ GO Microplate Spectrophotometer, the predecessor of Multiskan Sky Microplate Spectrophotometer, which earned a high reputation among many scientists all over the world since its launch in 2010.

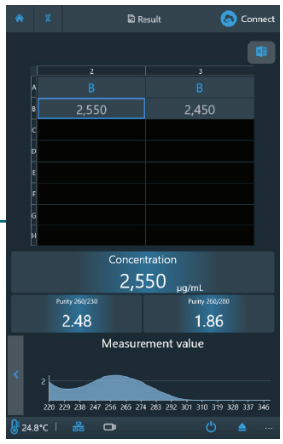
The design incorporates a dual-beam optical system with an internal reference channel. Extensive automatic self-diagnostics at startup verify all major instrument functionalities. This, along combined with continuous runtime control of optical and mechanical functions, helps enable stable day-to-day and year-to-year performance.

Photometric experience via a new, neat, and edgy user interface

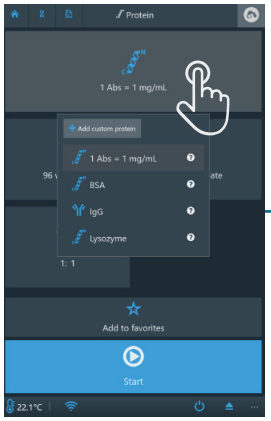
The attractive user interface is optimized for touch-screen use. The main screen allows a quick selection between endpoint, kinetic, or spectral assays with the “Measure” function.



Built-in protocols allow accurate quantification of nucleic acids (dsDNA, ssDNA, RNA, or custom) using the Thermo Scientific™ µDrop™ Plate, microplates, or cuvettes.

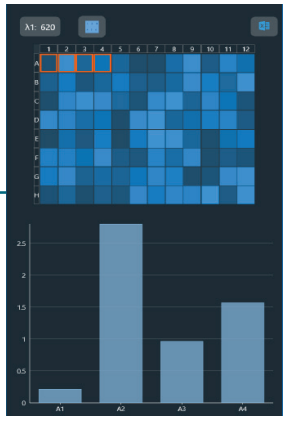


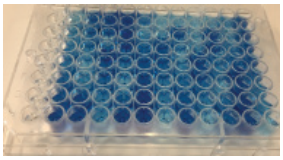
Follow the on-screen selections and visualize your results promptly and with unparalleled clarity.



Built-in protein protocols allow you to select between four different protein types or create your own. Measure using the µDrop Plate, microplate, or cuvette, and view your concentration and purity results.

With the Multiskan Sky Microplate Spectrophotometer, endpoint measurements are set up with a few taps. You’ll be able to see absorbance results in the visible spectra in a wavelength-adjusted heatmap, intended to mirror the actual color of the measured plate.





Why worry about how to transfer or access your data?

The Multiskan Sky Microplate Spectrophotometer offers true versatility in data transfer for full mobility. Touch-screen models allow you to save your results either automatically or manually to a USB memory device and local area network, or upload them to your Thermo Fisher Cloud account for further use (as Microsoft™ Excel™ or SkanIt software files). Wi-Fi and wired network connections are available. Even if you don't immediately back up your results after measuring, the Multiskan Sky Microplate Spectrophotometer automatically saves data in its memory for you to retrieve it at a later time.

Take your digital connectivity and data management to new heights

Enjoy the freedom to access your data remotely. The Multiskan Sky Microplate Spectrophotometer touch-screen models can connect to Thermo Fisher Connect cloud-based tools to ensure secure digital data management, remote access of your photometric data, and sharing between colleagues—all from the comfort of your computer.

Thermo Fisher Connect cloud-based capabilities enable you to:

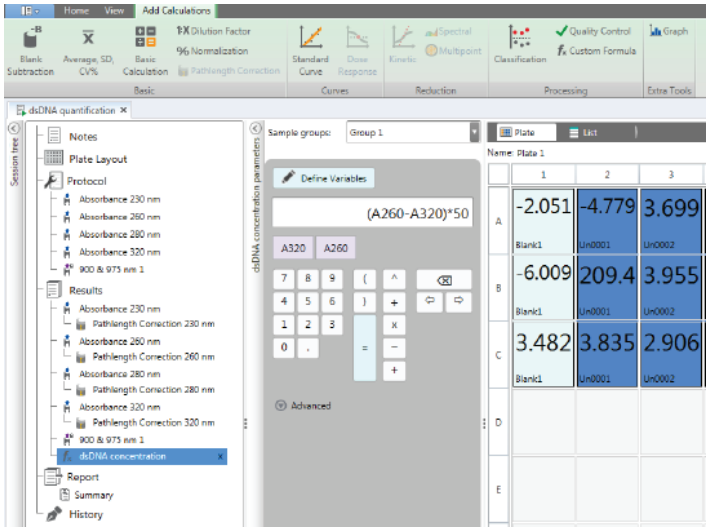
- Monitor the status of your instrument from your PC or Mac™ computer
- Monitor the status of your instrument from your mobile device with the Instrument Connect app
- Upload measured data automatically or manually from your instrument to your cloud account
- Securely store, access, share, and manage your data remotely
- Receive automatic notification of new instrument software updates
- Upgrade instrument software at your convenience

Powerful operation and data analysis with the SkanIt software

With a comprehensive selection of built-in calculations, including blank subtraction, standard curve, classification, quality control, and kinetic and spectral analysis, SkanIt software enables straightforward data reduction so that you have time to focus on your research.

The SkanIt software is available in two editions: Research Edition for life science research and Drug Discovery Edition, which offers features for compliance with the FDA's 21 CFR Part 11. The SkanIt software Research Edition is included with each Multiskan Sky Microplate Spectrophotometer model.

You can install SkanIt software on your own computer to set up assays and analyze data. While you create measurement sessions and analyze results at your own desk, the Multiskan Sky and its software are busy in the lab.



Versatile data analysis with the SkanIt software.

µDrop Plate for microliter-scale nucleic acid and protein sample measurements

- Analyze up to 16 samples simultaneously
- Quick and easy to wipe off the samples in serial measurements
- Contains a dedicated holder for cuvette measurements

µDrop Plate for quick and easy measurement of low sample volumes or a cuvette.

Key features of the Multiskan Sky Microplate Spectrophotometer

- Monochromator-based optical system for free selection of wavelengths from 200 nm to 1000 nm
- Compatible with 96- and 384-well microplates with and without lids or cuvettes
- Reads µDrop Plate for micro-volume DNA/RNA and protein analysis
- Performs onboard shaking and incubation for temperature-critical or cell-based assays
- Allows kinetic, spectral, and endpoint measurements
- Fast operation: full spectrum of a well is done in less than 10 seconds and a full 96-well microplate is read in 6 seconds
- Automation compatibility for integration with SkanIt software automation interface
- Set up of demanding assays via the powerful and intuitive SkanIt software
- Multiple languages available on all models; choose between English, German, French, Spanish, Italian, Portuguese, Russian, Chinese, and Japanese
- Models with a touch screen have an easy-to-use user interface for stand-alone use
- Models with a touch screen have ready-to-use built-in protocols for nucleic acids and protein quantification
- Models with a touch screen feature unique data management capabilities, allowing users to save time by uploading and handling data via Thermo Fisher Connect

With the Multiskan Sky Microplate Spectrophotometer, the sky is the limit for your photometric applications.

Typical applications

Nucleic acids (DNA, RNA) quantitation

Protein assays (direct quantitation and colorimetric assays)

Cell proliferation, viability, and cytotoxicity assays

Apoptosis assays

Enzymatic activity assays

Spectral and kinetic assays

Endotoxin assays

Bacterial growth assays

Immunoassays, including ELISA

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Multiskan SkyHigh Microplate Spectrophotometer

Technical specification for the Thermo Scientific™ Multiskan™ SkyHigh Microplate Spectrophotometer

	Multiskan SkyHigh Micrplate Spectrophotometer
Wavelength selection	Monochromator
Light source	Xenon flash lamp
Wavelength range	200–1,000 nm with 1 nm steps
Readout range	Up to 4 absorbance units
Bandwidth	<2.5 nm
Linearity at 450 nm*	0–2.5 Abs, 2%
Accuracy at 450 nm*	1.0% + 0.003 Abs (0–2.0 Abs), 2.0% (2.0–2.5 Abs)
Precision at 450 nm*	SD <0.003 Abs or CV <1.0%
Plates	6- to 48-, 96-, and 384-well plates**, Thermo Scientific™ µDrop™ Plates
Cuvette	Dimensions (H x W x D): 40–58 x 12.5 x 12.5 mm Beam center height: 8.5 mm Beam window: ≥2 mm
Measurement speed (starting from A1 back to A1)	6 sec with 96-well plate 10 sec with 384-well plate
Plate shaking	Linear
Spectral scanning speed	10 sec from 200–1,000 nm with 1 nm steps
Incubation range	From ambient temperature to 45°C
General specifications	
User interfaces	Stand-alone use: 7 in. touchscreen display PC control: Thermo Scientific™ SkanIt™ Software
Connections	1 USB B port for PC 1 Ethernet port 3 USB A ports for devices (USB memory device and Wi-Fi dongle)
Dimensions (H x W x D)	265 x 295 x 445 mm (10.4 x 11.6 x 17.5 in.)
Weight	11.3 kg (24.9 lb)

* Specifications are valid for 96-well flat-bottom microplates and quartz semimicro cuvettes with a 4 mm beam window.

** Maximum plate height with lid is 19.5 mm.

Find out more at **thermofisher.com/platereaders**

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