SpectraMax iD3

Multi-Mode Microplate Reader

Unparalleled performance on a personalized platform

SpectraMax iD3 Multi-Mode Microplate Reader

The SpectraMax® iD3 Multi-Mode Microplate Reader is the cornerstone of a complete laboratory solution to help you expand the boundaries of your research capabilities. With optimized reagents and the industry-leading data acquisition and analysis tool, SoftMax® Pro 7 Software, the SpectraMax iD3 allows you to customize your workflow to perfectly match your needs.

A microplate reader as personalized as your research

Built-in near-field communication (NFC) functionality in the SpectraMax iD3 reader enables you to pull up your custom protocols with a single tap, saving you precious time better spent on your research.

It features a large, high-resolution touchscreen interface with an embedded software package allowing you to set up custom protocols, take advantage of preloaded protocols, and run your experiment without the need for a dedicated computer workstation.

A complete solution to answer all your research needs

The SpectraMax iD3 reader measures absorbance, fluorescence, and luminescence. The superior optical system includes a xenon flash lamp and features an ultra-cooled photomultiplier tube (PMT) that reduces background noise for excellent sensitivity and a wide dynamic range.

Featuring temperature control up to 65°C, orbital and infinity shaking, a four-monochromator optical pathway with high efficiency gratings, well scanning up to a 20x20 read matrix, spectral scanning and detection of plate formats from 6- to 384-wells, the SpectraMax iD3 reader is the complete solution for all your research needs.

Capture flash assays with ease

Expand your lab's capabilities to include flash applications such as dual luciferase and ATP assays with the SpectraMax iD3 injector system with SmartInject™ Technology ensuring equal mixing across the plate for high-precision experiments. Engineered for high performance, the dual injector system can be used with any read mode and includes safeguard features such as overflow protection to save precious reagents and maximize performance for those critical experiments in your lab.

Quick initialization time allows you to start your experiments in seconds.

NFC lets you personalize workflows with one tap.

Easy-to-use touchscreen interface allows you to easily set up your experiments, use preconfigured analysis methods, or view tutorial videos.

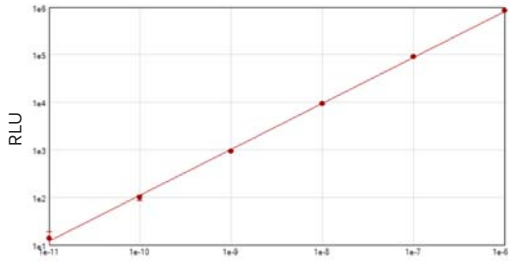
Network connectivity lets you run multiple instruments from one workstation. Data is automatically delivered to workstations, eliminating the need to retrieve data directly from the instrument.

Key benefits

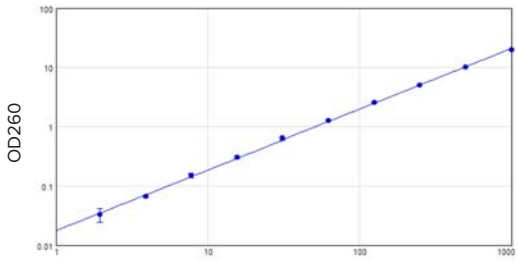
- Use the touchscreen to easily set up methods, run experiments or view tutorial videos
- Personalize workflows with one-tap near-field communication (NFC) functionality
- Push data to workstations, eliminating the need to retrieve data directly from the instrument
- Validate your instrument and software with our extensive suite of tools

Reliable performance with a proven track record

For nearly 30 years, Molecular Devices has provided scientists with tools to expand the boundaries of their research. Our microplate readers are the industry's most cited instruments and have empowered life science researchers to advance protein and cell biology, breaking the barriers to novel, landmark discoveries. The SpectraMax iD3 reader is built on the same foundation that has made our entire SpectraMax microplate reader product line among the most trusted in the industry.



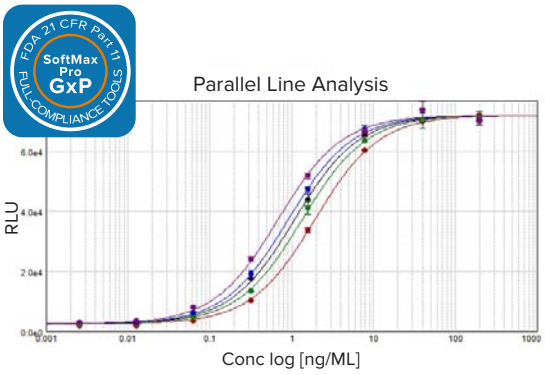
An ATP standard curve spanning five decades was run using the ATPlite 1step Luminescence Assay System (PerkinElmer) on the SpectraMax iD3 reader. Standard concentrations ranged from $1x10^{-11}$ M to $1x10^{-6}$ M. A wide linear dynamic range ensures accurate assay results across a broad span of sample types. Standards were plotted using a log-log curve fit in SoftMax Pro Software.



The SpectraMax iD3 reader is fully compatible with the SpectraDrop™ Micro-Volume Microplate, enabling quantitation of precious low-volume samples. 4-µL DNA standards from 2 ng/µL to 1000 ng/µL were read in absorbance detection mode with a preconfigured protocol in SoftMax Pro Software. Performance matching the 2 ng/µL sensitivity specification is demonstrated here.

SoftMax Pro GxP Compliance Software

SoftMax Pro GxP Compliance Software extends Molecular Devices leading data acquisition and analysis solution into regulated laboratories working under GMP, GLP, 21 CFR Part 11, and other similar guidelines for secure electronic records.



Secure, traceable electronic recordkeeping

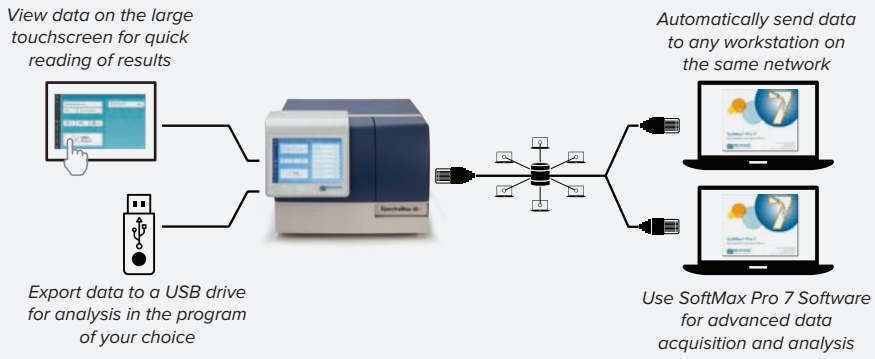
- Controlled user access through a granular permission structure and unique logins
- Electronic signature support for verification, authorization, and approval
- Audit trails to document the history of user actions for each data file
- Local and remote administration of user accounts for straightforward deployment

Save time and reduce cost

- Extensive suite of tools available for validation can reduce the cost and time of validation by 50% as compared to using multiple platforms to collect and analyze data
- Provides end-to-end chain of custody from capture through analysis to validation of data
- Validation tools for PLA, 4-P and 5-P curve fits
- Ready-to-use data for OQ confirmation tests
- Printable IQ/OQ documents for GLP/GMP paper trail

The data you need anywhere you want it.

Reduce the amount of time you spend collecting data, and increase your productivity. The SpectraMax iD3 reader allows you to interact with your data any way you want from anywhere you want. View your data quickly using the large touchscreen interface, export your data to a USB drive for analysis in the program of your choice, or analyze your data using the industry's leading data acquisition and analysis tool, SoftMax Pro 7 Software. The SpectraMax iD3 reader also features network connectivity that allows you to walk away from the instrument to focus on additional research. Data is automatically delivered to any workstation on the same network, eliminating the need to physically retrieve data from the instrument.



Technical specifications – SpectraMax iD3 reader

General specifications

Dimensions (in.)	15.79 (H) x 20.94 (W) x 23.54 (D)
Dimensions (cm)	40.1 (H) x 53.2 (W) x 59.8 (D)
Weight	88.1 lbs. (40 kg)
Power requirements	100–240 VAC, 2 A, 50/60 Hz
Robotic compatible	Yes

General performance

Plate formats	6 to 384 wells
Light source	Xenon flash lamp
Reading capabilities	Microplates, cuvettes (via adapter)
Detectors	Photomultiplier Tube and Photodiode
Shaking	Linear, Orbital, and Infinity
Temp. control	5°C above ambient to 66°C[1]
Temp. uniformity	± 0.75°C
Temp. accuracy	± 1°C at 37°C set point
Spectral scanning	Abs, Fl, Lum
Endpoint reading	Abs, Fl, Lum
Kinetic reading	Abs, Fl, Lum
Well scanning	Over 20 by 20 in all modes
Wavelength selection	1.0 nm increments

Standard read times (minutes:seconds)

	96 wells	384 wells
Absorbance	0:25	1:25
Fluorescence intensity[2]	0:17	0:53
Luminescence[2]	0:26	1:01

[1] *For > 65°C, minimum 25°C ambient temperature is required.*

[2] *10 msec integration time for fluoresence measurement. 100 msec integration time for luminescence for a 96-well plate and 40 msec integration time for a 384-well plate.*

Experience the identifiably different SpectraMax iD3 at **moleculardevices.com/iD3**

Absorbance photometric performance

Wavelength range	230–1000 nm
Wavelength bandwidth	4.0 nm
Wavelength accuracy	± 2.0 nm
Wavelength repeatability	± 1.0 nm
Photometric range	0–4.0 OD
Photometric resolution	0.001 OD
Photometric accuracy	< ±0.010 OD ±1.0%, 0–3 OD
Photometric precision	< ±0.003 OD ±1.0%, 0–3 OD
Stray light	< 0.05% @ 230 nm

Fluorescence intensity performance

Wavelength range	250–850 nm	
Wavelength selection	1.0 nm increments	
Dynamic range	> 6 logs	
Optimized top sensitivity (fluorescein)	**96 wells**	**384 wells**
	1 pM	1 pM
Optimized bottom sensitivity (fluorescein)	**96 wells**	**384 wells**
	2 pM	2.5 pM

Luminescence performance

Wavelength range	300–850 nm	
Wavelength selection	Choice of simultaneous detection of all wavelengths or selection in 1.0 nm increments	
Dynamic range	> 7 decades	
Cross-talk	< 0.1% in white 96- and < 0.2% in 384-well microplates	
Optimized sensitivity (ATP-Glow)	**96 wells**	**384 wells**
	2 pM	4 pM

SmartInject injector system (optional)

Injectors	2
Dispense accuracy	± 5% at 100 µL
Dispense precision	≤ 2% cv at 100 µL
Dead volume	Injector Tubing: 250 µL < 10 µL with Reverse Prime function

Contact Us

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Check our website for a current listing of worldwide distributors.

Regional Offices

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4/24 2091D
Printed in USA