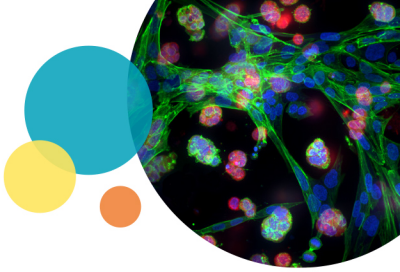


Sole Source Justification

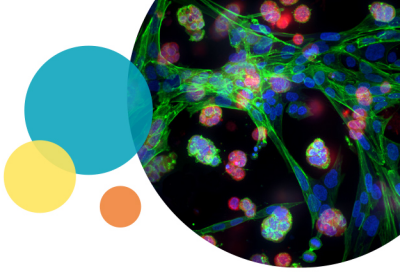
Part Number: SPECTRAMAX ABS PLUS

Introduction	SpectraMax ABS Plus Reader is a monochromator-based microplate reader for UV and visible absorbance measurements between 190 nm and 1000 nm.
Acceptable microplate types and cuvettes	SpectraMax ABS Plus is capable of reading absorbance in standard, commercially-available cuvettes and 96- or 384-well microplates. The Reader contains a built-in cuvette port and a microplate drawer, and all reads can be performed with a single wavelength selection operation.
Xenon lamp longevity	SpectraMax ABS Plus Reader uses a Xenon flash lamp for longer lamp lifetime.
Single light source reproducibility	SpectraMax ABS Plus Reader uses a single Xenon flash lamp for greater consistency and reliability.
Monochromator-based wavelength selection of absorbance	SpectraMax ABS Plus Reader uses monochromator-based tunable absorbance wavelength selection between 190 nm and 1000 nm. No external filters are required for purchase in the future when additional assays are added to the laboratory.
Absorbance bandpass	SpectraMax ABS Plus Reader has a 2 nm absorbance bandwidth for superior peak resolution and increased accuracy of measurements for narrow bandwidth samples.
Patented multichannel optical design	SpectraMax ABS Plus Reader has a patented multichannel optical design (U.S. Patent No. 6,151,111) of 8 samples and 8 reference detectors that accurately mimic a dual beam spectrophotometer. Each sample has a discrete sample beam and reference beam so that each sample is measured directly, eliminating error due to variations in light output between the optical fibers. The eight-channel system delivers both superior precision and speed of reading across the microplate providing linearity to 3 OD and reading to 4 OD.

3860 N First Street
San Jose, CA 95134
United States

toll-free 1.800.635.5577
office 408.747.1700
fax 408.747.3601

moleculardevices.com



Temperature independent path length correction	SpectraMax ABS Plus Reader offers the patented PathCheck Sensor for temperature independent, accessory-free sample pathlength measurement. • The pathlength measurement calculates concentrations without a standard curve • Label-Free “No Dye” Testing of liquid handling devices • Detects and corrects pipetting errors Can expand the dynamic range of assays up to 9OD
Slow carriage speed option	SpectraMax ABS Plus Reader has the option to run with a slow carriage speed to increase assay precision.
Read times	SpectraMax ABS Plus Reader can read a 96-well plate in 12 seconds in endpoint read mode and can read a plate in kinetics read mode with a 5 second minimum interval.
Thermal regulation	SpectraMax ABS Plus Reader has thermal regulation for temperature dependent kinetic assays. Temperature is regulated up to 45°C. Three heat sources provide uniform temperature regulation across the plate (+/-0.5°C well-to well @ 37°C). One heat source above the plate creates a small temperature differential, eliminating plate lid fogging during kinetic runs.
Plate shaking	SpectraMax ABS Plus Reader has linear plate shaking for mixing samples in the wells of the microplate.
Top read of microplates	SpectraMax ABS Plus Reader reads from top to bottom of the well for “U”, “V”, and flat-bottom shaped microplate wells.
SpectraDrop Ultra-Low Volume Capability	SpectraMax ABS Plus Reader is compatible with the SpectraDrop™ Micro-Volume Microplate. Enabling as low as 2µL sample detection at as high at 64-samples per plate.
Compliance tools	SpectraMax ABS Plus Reader offers compliance support tools including: • IQ/OQ documentation • Physical validation test plate for absorbance
Absorbance validation plate	SpectraMax ABS Plus Reader offers automatic validation of absorbance performance with the SpectraTest® ABS1 validation plate. The SpectraTest ABS1 validation plate provides NIST traceability and performs 8 tests to easily verify optical performance.
Automation-compatible design	The microplate drawer on the SpectraMax ABS Plus Reader is accessible to automation platforms so that no further physical instrument modification is required for all configurations.

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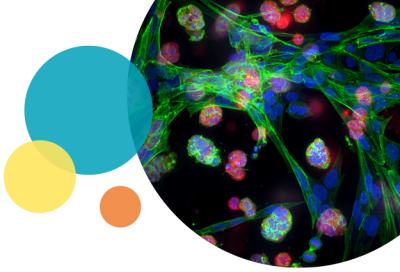

StakMax Plate Handling System compatible	SpectraMax ABS Plus Reader can be integrated with the StakMax Plate Handling System.
Cross-platform data files	SpectraMax ABS Plus Reader controlled by industry standard SoftMax Pro software. SoftMax Pro software offers a common file format allowing for data to be edited, saved, and shared by users.
Ready-to-run method protocols included	SpectraMax ABS Plus Reader controlled by SoftMax Pro software, provides pre-packaged method protocols for common assays and applications.
Custom method design	SpectraMax ABS Plus Reader controlled by SoftMax Pro software, allows users to design and save custom assay protocols; create meaningful reports, graphs, and multi-plate summaries.
Data exporting capability	SpectraMax ABS Plus Reader controlled by SoftMax Pro software, offers direct export to Excel with multiple output formats, plate data and section selection options. Users can export as little or as much as they require making the data sharing a breeze.
Autosaving of data	SpectraMax ABS Plus Reader controlled by SoftMax Pro software, allows autosaving of multiple copies of assay data to desired locations in one of three file formats, listed above.
Data analysis	SpectraMax ABS Plus Reader controlled by industry standard SoftMax Pro software, allows for simultaneous evaluation of multiple standard curves, multiple plots in a single or multiple graph, 4 and 5-parameter logistic curve fitting, BOOLEAN operators (e.g. If, And, Or, Not, False, True).

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United States

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fax 408.747.3601

moleculardevices.com