Innovative Solutions for Drug Discovery and Life Sciences Research

ADVANCING DISCOVERY

MOLECULAR DEVICES

vwr™ part of avantor | order on VWR.COM

Multi-mode microplate reader portfolio

Key Features

Improved sensitivity across entire spectrum

Flash assays captured easily using SmartInject™ Technology

Pipette errors eliminated for true OD measurements with no temperature dependency

Super cooled PMT for improved luminescence range

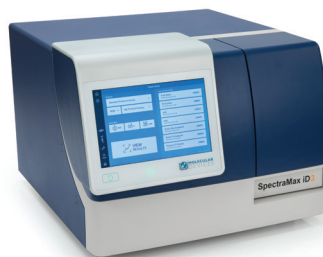Library of user-configurable applications to choose from

Automation-compatible options

SpectraMax® i3x

Unlimited breadth of user upgradeable application modules

- Multi-mode microplate reader and imaging system
- Wide dynamic range
- StainFree™ cell counting technology
- Library of user-configurable applications
- Advanced curve fitting and statistical analysis
- Cell confluence and cell viability imaging, and quantitation of nucleic acids and proteins on a single reader
- Optional western blot detection

SpectraMax® iD3/iD5

Multi-user microplate readers with a large touchscreen and NFC functionality

- Built-in near-field communication (NFC) functionality for access to custom protocols and results with a single tap
- Enhanced touchscreen workflows for walk-up usability
- Ultra-cooled photomultiplier tube (PMT) detector for background noise reduction
- QuickSync feature pushes data to any computer within the same network
- Flexibility to set up experiments using either filters, monochromators, or a combination of both on the SpectraMax iD5 reader

Multi-mode microplate reader portfolio

SpectraMax® M Series

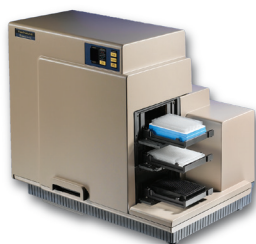### Configurable readers with triple-mode cuvette ports, validation tools, and compliance software

- Choose from varying reader modes (2-5)
- Dual monochromator tunability
- Automated absorbance pathlength correction
- Endpoint, kinetic, spectral and well-scanning
- Validation and compliance tools
- Robotics compatibility

SpectraMax® Paradigm

High-throughput screening capability on one fast, configurable microplate reader

- Automatic Z-height optimization for fast top- and bottom-reads
- Manual gain adjustment eliminated with reads up to seven logs of sample concentration in a single pass of a plate
- Multiple calculations performed on one data set
- Side-by-side comparison of multiple experiments
- Fastest read times for 96-1536 well plates
- Robotics compatibility

FlexStation® 3

Precise optics, fluidic transfer, and assay flexibility on one integrated microplate reader

- Five-mode reader with a wide range of applications
- User-definable liquid transfer enables multiple live cell kinetic assays
- User-defined pipetting simplifies assay optimization
- Instrument and software validation
- Benchtop FLIPR® system
- Robotics compatibility

FilterMax™ F3 & F5

Filter-based detection for absorbance, fluorescence, glow luminescence

- LEDs are high powered at critical wavelengths with an optimized light source for a specific dye or application
- Low cost of ownership and minimum maintenance
- The photomultiplier tube (PMT) with increased sensitivity for red dyes
- Linear dynamic range over six orders of magnitude
- Improved detection limit for TRF

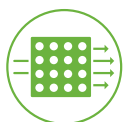# Absorbance microplate readers

Key Features

Small footprint

Pipette errors eliminated for true OD measurements with no temperature dependency

Spectral resolution ensures accuracy of DNA absorbance measurements

Two-fold improvement in speed

Automated injector workflows

DNA, RNA, and protein quantitation

Predefined protocols with SoftMax Pro Software

SpectraMax® ABS/ABS Plus Microplate Readers

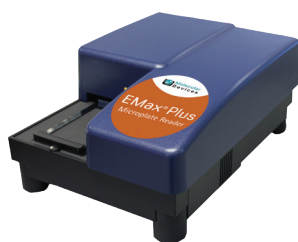**Fast absorbance detection for a wide range of assays without the use of filters**

- Compact design
- 96- or 384-well microplate compatibility
- Eight-channel optics for fast reads
- Pipetting errors eliminated with patented PathCheck Sensor to measure the optical pathlength of samples in a microplate
- Validation and compliance tools

SpectraMax® QuickDrop Micro-Volume Spectrophotometer

One-drop for a full-spectrum micro-volume absorbance spectrophotometer

- Easy to use
- Touchscreen interface with preconfigured analysis methods
- Fixed path length requires no calibration
- Micro-volume sample port has no moving parts to break or skew results regardless of viscosity
- Data can be exported easily to a USB drive for additional analysis
- One-swipe cleaning

EMax® Plus Microplate Reader

Visible absorbance microplate reader in a compact footprint

- Eight standard filters cover a wide range of applications
- Custom options such as discontinuous kinetics feature for pausing and resuming kinetic reads, predefined calculation options for common data analysis functions, and easy data export
- Powerful curve fitting protocols and statistical analysis features included for easy visualization of acquired data

Fluorescence microplate readers

Gemini™ XPS/EM Microplate Readers

Fluorescence detection without filters

- No filters needed
- High level of sensitivity
- Validation tools
- Robotics compatible

Luminescence microplate reader

SpectraMax® L Microplate Reader

Sensitive luminometer with programmable injector options for 96- and 384-well microplates

- Detect dim samples with unsurpassed sensitivity
- Avoid saturation issues with nine orders of dynamic range
- Enable robust performance with autorinse injectors
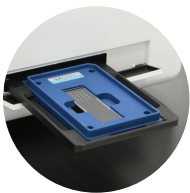- Validation and compliance tools

Handlers and accessories

StakMax® Microplate Handling System

Simple, economical microplate automation for any lab

- Integrates with SpectraMax readers
- Stacks up to 50 plates
- Robust and reliable
- Easy to set up and use
- Can recycle plates for multiple reads
- Leverages the power of SoftMax Pro Software
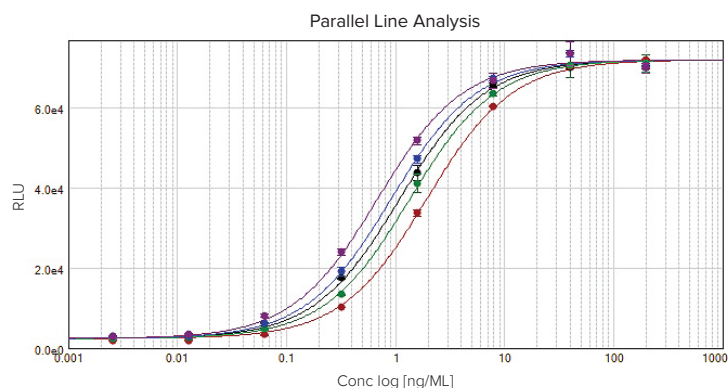
SpectraDrop™ Micro-Volume Microplate

Smaller, faster quantitation of DNA, RNA, and protein

- Micro-volume detection for 1-64 samples
- Elegant simplicity for multiuser labs
- User versatility with different volume size and density options
- Multi-channel pipettor can be used
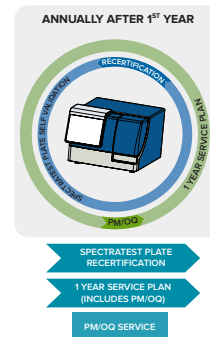- Cleaning with hassle-free handling
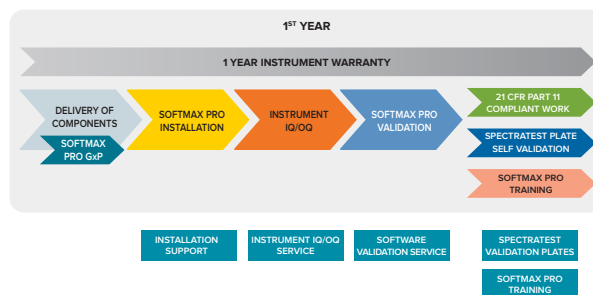
SoftMax® Pro Software

- Software powers discovery on all Molecular Devices readers
- Simplified data measurement through library of prewritten protocols
- Software validation protocols available for IQ/OQ/PQ of hardware and software
- Import and analysis of complex data acquired from any scientific instrument
- Over 160 built-in protocols with preconfigured assay parameters for a wide variety of common assays
- Discontinuous kinetics feature allows for custom assay workflow and runs multitask kinetics
- Complex, customizable curve fittings
- Flexible data output formats support research and publications

Parallel Line Analysis

SoftMax® Pro GxP Software

Meet FDA guidelines in GMP/GLP labs with complete validation tools

- System audit trail for tracking and recording all actions and for paperless documentation with eSignatures
- Microsoft SQL database for complete control over file access permissions
- Document workflow and status system for maintaining data integrity with control over document workflows
- Windows Active directory for authenticating and authorizing all users
- Signing and approving different steps of a document
- Assigning users to different projects with different roles
- Auto export of signed XML files

Validation plates

The SpectraTest® Validation Plates provide automated, comprehensive, and traceable validation of optical performance, plus automatic verification of our microplate readers.

Automated for ease of use

All test measurements and calculations are handled automatically by the SoftMax Pro Software protocols. Should any of the measurement parameters fall outside defined limits, a test failure is reported with the suspect parameters identified.

NIST traceability

Calibration of the plate's filter standards is accomplished through the use of an instrument calibrated with primary NIST standards.

Recertification service

To maintain confidence in the standards, we recommend having validation plates recertified at one-year intervals. Validation plates sent to us are disassembled, cleaned, calibrated, recertified according to ISO 17025, and returned with a new certificate of calibration.

[The Multi-Mode Validation Plate offers additional testing of TRF, HTRF, and fluorescence polarization read modes on FilterMax™ F3/F5 and SpectraMax® i3x, iD5, and Paradigm® microplate readers.]

IQ/OQ/PM services

Ensure ongoing compliance for your Molecular Devices microplate readers and be audit ready with our Installation Qualification, Operational Qualification, and Preventive Maintenance (IQ/OQ/PM) services.

Installation Qualification (IQ)
Verifies and documents that all necessary components required for operation are received and properly installed in accordance with Molecular Devices operational specifications.

Operational Qualification (OQ)
Tests the mechanical, electrical, and optical components of each instrument to verify proper operating functions in accordance with manufacturer specifications.

Preventive Maintenance (PM)
Ensures each instrument meets operational specifications through comprehensive, multipoint inspection. The instrument is calibrated, inspected, and lubricated. Potential issues are proactively addressed.

Certificate of Calibration Number:		XXXX	

ABS Test results

Test Description	Test Specification	Test Results - Plate Passes/Fails/NA	Test Results - Cuvette Passes/Fails/NA
Photometric Accuracy	Average OD = Certificate Value +/- ((.01*Certificate Value)+.006)	PASSES	PASSES
Photometric Precision	Average OD = Certificate Value +/- ((.01*Certificate Value)+.003)	PASSES	PASSES
Photometric Linearity	Average OD = Certificate Value +/- ((.01*Certificate Value)+.006) in the standard range of PD20 to PD 100	PASSES	PASSES
Wavelength Accuracy	Measured Peak = Certificate Peak +/- 1 nm	PASSES	PASSES
Stray Light at 220nm	Minimum OD >= 2.5	PASSES	PASSES

Example of document to evaluate if the reader performs within its specifications.

Microplate washers

Key Features
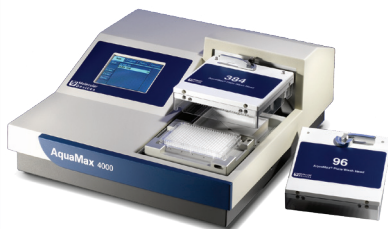

Easy operation

Minimized wash time

Reduced residual volume

Patented cell wash head to gently wash cells

AquaMax® Microplate Washers

Microplate washers for biochemical and cell-based assays

- Interchangeable 96- and 384-well wash heads
- Dispense entire plate at once for fast additions
- Completely programmable via touchscreen interface

- No external pumps or computer
- Comprehensive, automated cleaning utilities
- Robotics-friendly design
- Low residual volume saving precious and expensive buffers

MultiWash™+ Microplate Washer

96- and 384-well automated washer

- Walk-up usability
- Start simply with wash and rinse bottles (included)
- Liquid handling one column at a time
- Flexible system washes 96- or 384-well plates

- Automated rinse reduces clogging
- Quiet and efficient
- Low residual volume saving precious and expensive buffers

Microarray scanners

GenePix® 4300/4400 Microarray Scanner

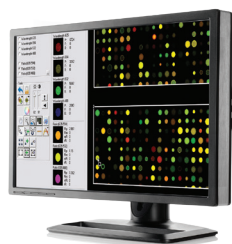### High-resolution, high-quality imaging for up to four-color microarrays

- High-resolution imaging
- Ultimate sample compatibility
- Houses up to four lasers
- 16-position emission filter wheel
- Fully integrated with GenePix Pro Software

GenePix® 4100A Microarray Scanner

Affordable, high-quality imaging for two-color microarrays

- Compact, affordable, and easy to use
- Superior imaging accuracy
- Outstanding reproducibility
- Flexible fluorophore collection
- Fully integrated with GenePix Pro Software

GenePix® Pro Microarray Image Analysis Software

The industry standard in microarray image analysis

- Multiplexed image acquisition
- Powerful automated spot-finding algorithms
- Walk-away batch analysis
- Automated quality control flagging
- Import/export of industry-standard file formats
- Full control of GenePix SL50 slide loader
- Integration with GenePix scanners and Acuity® informatics software

Imaging systems

Key Features

High quality images

Multiple imaging modes

3D imaging and analysis

Turnkey application modules

Ease of use

Environmental control

Automation-compatible

ImageXpress® Pico Automated Cell Imaging System

Compact system that allows users to go from samples to results in minutes

- Ideal for cell counting, transfection efficiency, and cell health assays
- 25+ preconfigured application protocols
- 3D z-stack acquisition
- On-the-fly analysis
- Tablet and touchscreen compatible
- Access data from a browser—anytime, anywhere

ImageXpress® Nano Automated Imaging System

Fluorescence imaging, widefield platform for common biological assays

- Ideal for phagocytosis, mitotoxicity, autophagy, and cell differentiation
- CMOS 12 bit
- 100 nm stage resolution
- 3D z-stack acquisition
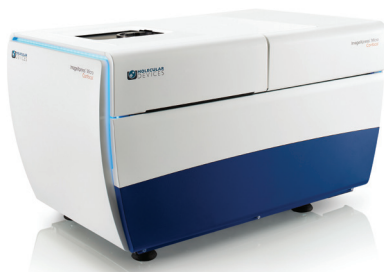- High speed image acquisition

Imaging systems

ImageXpress® Micro 4 High-Content Imaging System

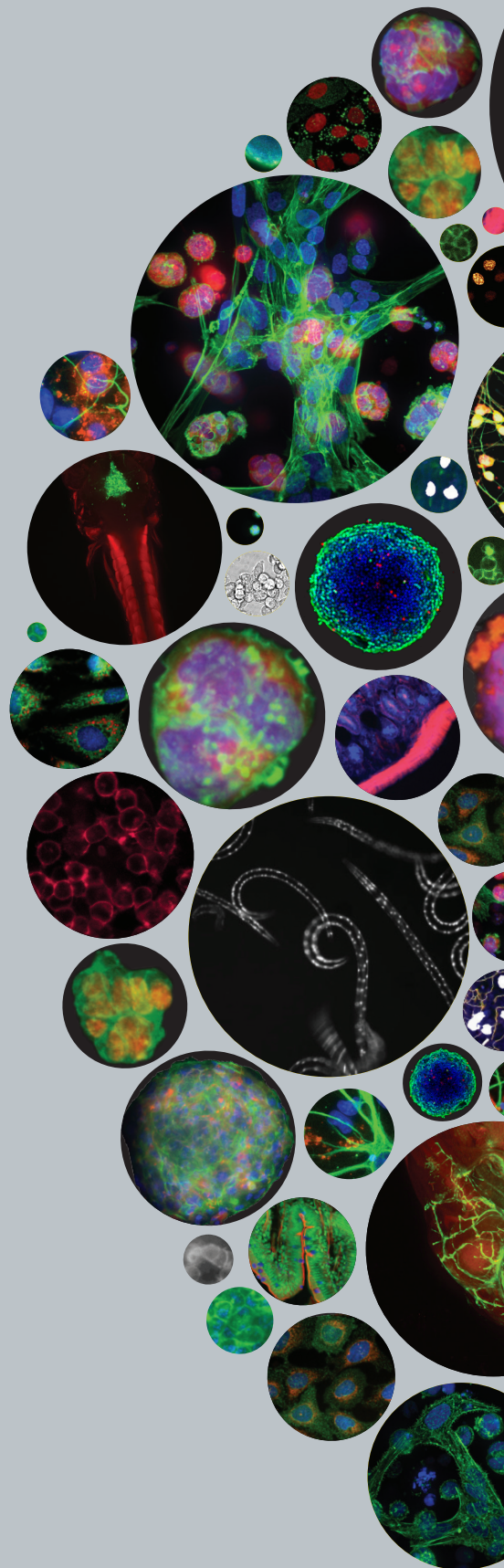### Configurable, high-throughput widefield imaging for fast biological processes

- Ideal for high-throughput screening, time-lapse imaging from calcium assays to multi-day subcellular assays, and intracellular yeast assays

- Greater than 3 log dynamic range
- -25 nm stage resolution
- 3D volumetric analysis
- Upgradeable to confocal imaging

ImageXpress® Micro Confocal High-Content Imaging System

Combines speed, sensitivity, and resolution for confocal imaging

- Ideal for 3D organoid and spheroid imaging
- Our most sensitive high-content imager
- Confocal imaging at the speed of widefield imaging

- Greater than 3 log dynamic range
- -25 nm stage resolution
- 3D volumetric analysis
- Laser excitation available

Ordering information	VWR cat. #
Multi-mode detection systems	
SpectraMax® iD5	**76175-288**
SpectraMax® iD3	**75886-128**
SpectraMax® i3x	**10014-924**
SpectraMax® Paradigm	**10822-512**
SpectraMax® M Series	**89429-532**
	89429-534
	89429-536
	89212-398
	89212-400
FlexStation® 3	**89212-402**
FilterMax™ F3	**97059-524**
FilterMax™ F5	**97059-526**
Fluorescence readers	
Gemini XPS	**XPS**
Gemini EM	**76196-594**
Absorbance readers	
SpectraMax® ABS Microplate Reader	**76266-086**
SpectraMax® ABS Plus Microplate Reader	**76266-088**
SpectraMax® QuickDrop Micro-Volume Spectrophotometer	**89212-410**
EMax® Plus	**10119-370**
Luminescence readers	
SpectraMax L	*
Microplate washers	
MultiWash™+	**10119-372**
AquaMax® 2000/4000	**97059-514**
	97059-518

Ordering information	VWR cat. #
Software solutions	
SoftMax Pro® 7 One-Year Subscription	**75838-330**
Non-Expiring SoftMax Pro® 7 License	**75838-332**
GenePix® Pro	**10192-216**
Imaging solutions	
ImageXpress Pico Basic Bundle	**76230-060**
ImageXpress Pico Advanced Bundle	**76230-062**
ImageXpress® Nano Automated Imaging System	**76177-144**
ImageXpress® Micro 4 Widefield High-Content Imaging System	**76177-142**
ImageXpress® Micro Confocal High-Content Imaging System	**76177-140**
Handlers and accessories	
StakMax Microplate Handling System	*
SpectraDrop™ Micro-Volume Microplate	**89212-410**
SpectraTest Validation Plates	*
Microarray scanning systems	
GenePix 4300/4400	**10192-224**
	10192-206

* Inquire with your Molecular Devices Sales Representative to order these products.

Contact your local VWR or Molecular Devices sales representative for more information.