

EMax and VMax Microplate Readers

SIMPLE, RELIABLE ENDPOINT AND KINETIC ANALYSIS



- READ LOW AND HIGH CONCENTRATIONS
- RUGGED, RELIABLE, WITH REPRODUCIBLE RESULTS
- EASY TO USE
- POWERFUL SOFTMAX PRO SOFTWARE

The EMax[®] and VMax[®] Microplate Readers are designed for reproducible results and rugged performance. Applications for the EMax microplate reader include endpoint ELISA, total protein assays, platelet aggregation studies, endpoint LAL endotoxin assays, cytokine determination and quantitation of cytoproliferation by MTT reduction or by staining with crystal violet. The VMax microplate reader builds on the capabilities of the EMax reader by adding applications based on kinetic measurements, such as enzyme studies and kinetic-based ELISA measurements.

PERFORMANCE HIGHLIGHTS

The readers are capable of reading up to six plates a minute using a five-second read time. Single- or dual-wavelength measurements can be made and as many blank wells as required can be located anywhere on the plate. The AUTOMIX feature ensures adequate mixing before and between readings for accurate readings of solid-phase reactions, such as ELISA assays.

SoftMax[®] Pro Microplate Data Analysis Software provides integrated instrument control and data

analysis for both Windows- and Macintosh-based computers. Software validation and FDA 21 CFR Part 11 compliance tools are also available. With SoftMax Pro Software, data can be visualized as gray scales, kinetic plots or reaction rates. Powerful curve-fitting routines and statistical analysis are included.

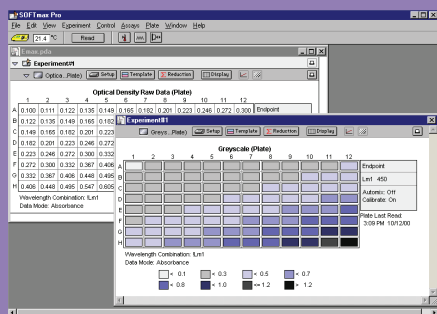
SINGLE-WELL ILLUMINATION

The single-well illumination design of the EMax and VMax Readers sequentially illuminates each well with 100% of the available light, resulting in an optimized signal-to-noise ratio. The light-tight reading chamber eliminates stray light for linearity to higher OD readings.

STATIONARY PLATE DESIGN

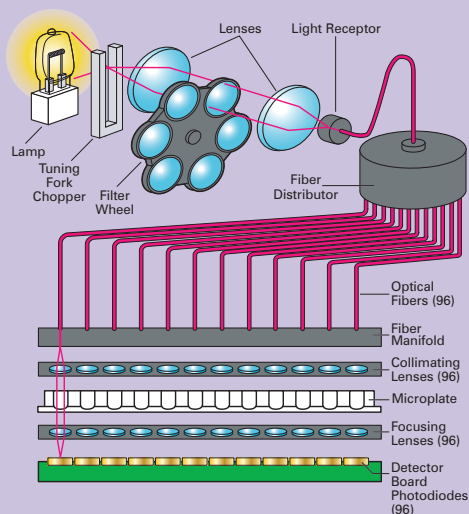
The stationary plate design yields data comparable to high-quality spectrophotometers because the microplate does not move during the read. There is no moving meniscus, so the pathlength is always the same. An additional benefit of stationary plate reading is a reduction in moving parts, contributing to a robust mean time between failure (MTBF) of 20,000 hours.

Results At-A-Glance



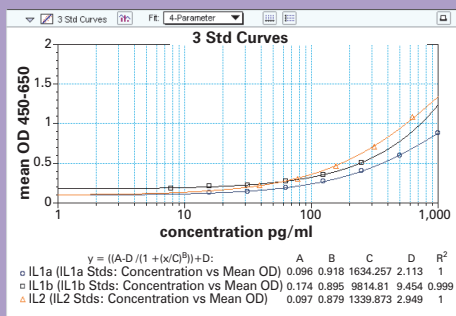
The grayscale option presents raw data in eight shades of gray for a quick visual check of assay results.

Sequential Illumination Optics



The light distribution design illuminates each well sequentially with 100% of the incident light, eliminating cross-talk.

Flexible Data Analysis



Multiple standard curves from different microplates can be plotted on one graph with SoftMax Pro microplate analysis software.

TECHNICAL SPECIFICATIONS

Performance Specifications

Measurement range: 400–750 nm
0–4.0 OD
Photometric resolution: 0.001 OD
Read modes (EMax): Endpoint
Read modes (VMax): Endpoint, kinetic

Read times (96-well microplate):

Endpoint read-only: 5 seconds

Calibration: 5 seconds

Min. kinetic interval:* 5 seconds

AUTOMIX: VMax reader only

Cross-talk control: Single-well sequential illumination of microplate wells eliminates well-to-well cross-talk

Calculated MTBF: > 20,000 hours

Optical alignment: No adjustment required during instrument lifetime

* VMax Reader only.

General Specifications

Dimensions (in.): 7.38 (H) x 18.25 (W) x 13.38 (D)

Dimensions (cm): 19 (H) x 47 (W) x 34 (D)

Weight: 22 lbs. (10 kg)

Power consumption: < 35 watts

Power source: 90–250 VAC, 50/60 Hz

ORDERING INFORMATION

EMax Endpoint Microplate Reader

→ EMax Microplate Reader

→ SoftMax Pro Microplate Analysis Software

→ SoftMax Pro Software Validation Package

→ IQ/OQ/PQ validation manual

Contact your Molecular Devices sales representative for configuration options.

VMax endpoint/kinetic microplate reader

→ VMax Microplate Reader

→ SoftMax Pro Microplate Analysis Software

→ SoftMax Pro Software Validation Package

→ IQ/OQ/PQ validation manual

Contact your Molecular Devices sales representative for configuration options.

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