



Microplate Reader LD-LMPR-A16

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Overview

Microplate Reader LD-LMPR-A16 is a versatile analytical instrument designed for precise absorbance measurements across a broad ultraviolet and visible spectrum. It utilizes an advanced grating monochromator system that eliminates the need for filters, allowing flexible wavelength selection and accurate detection for various laboratory assays. The device features dual photodetection technology to ensure reliable measurements and improved analytical performance. Its integrated touchscreen interface and standalone operating capability enable convenient operation and efficient workflow.

Features:

- Grating monochromator with adjustable wavelength from 200–1000 nm and 1 nm step resolution
- Dual silicon photodetectors providing measurement and reference detection
- Supports single-wavelength, dual-wavelength, and multi-wavelength measurement modes
- Supports 6 to 384 well microplates, including ultra-micro 24-well plates
- Equipped with a linear shaking function with three adjustable speed levels
- Compatible with spectral scanning, endpoint assays, and kinetic analysis
- Integrated enzyme inhibition rate analysis module
- Multiple standard curve fitting methods for quantitative analysis
- High-resolution capacitive colour touch screen with Android-based standalone operation
- Optional cuvette module for expanded measurement capability
- Bluetooth and Wi-Fi enabled for convenient wireless connectivity
- Advanced microplate reader software with audit trail and comprehensive data processing functions

Applications:

Microplate Reader LD-LMPR-A16 is used in life science research including DNA/RNA analysis, cell proliferation and cytotoxicity assays, bacterial concentration analysis, enzyme activity tests, and ELISA/EIA endpoint assays.

Specifications:

Dimensions	512 × 308 × 289 mm
Interfaces	USB-A, USB-B, Ethernet
Net Weight	16 kg
Stray Light	? 0.03% (at 220 nm)
Light Source	Long-life xenon flash lamp (>1 × 10 ⁷ flashes)
Power Supply	DC 24V, 7.5A
Reading Range	0.000 – 4.000 A
Detection Speed	8 seconds (96-well plate)

Wavelength Step	1 nm
Wavelength Range	200 – 1000 nm
Spectral Bandwidth	2 nm
Absorbance Accuracy	$\pm 1.0\% + 0.003 \text{ A}$ (0 – 2.0 A); $\pm 2.0\%$ (2.0 – 2.5 A)
Data Export Formats	Excel, Word, PDF, TXT, HTML
Wavelength Accuracy	$\pm 2 \text{ nm}$
Absorbance Linearity	$R^2 \geq 0.999$ (0 – 3.0 A at 450 nm)
Temperature Accuracy	$\pm 0.5^\circ\text{C}$ at 37°C
Incubation Temperature	Room temperature to 55°C
Absorbance Repeatability	$\text{SD} < 0.003 \text{ A}$ or $\text{CV} < 0.5\%$
Wavelength Repeatability	$\pm 0.2 \text{ nm}$