Microplate Reader LD-LMPR-B21

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Overview

Multi-mode Microplate Reader LD-LMPR-B21 is a bench top unit, used in ultraviolet-visible spectrophotometer measurement of 96 well microplate in 10 seconds and 384 well microplate in 30 seconds, it offers linear plate shaking motion. Designed with flashing xenon lamp source, long life and stable illumination, the wavelength ranges from 200 to 1000 nm and offers 0 to 4.0 OD measurement range along with Fluorescence, Luminescence and can be upgraded as per customer requirement to ultra-micro plate and flash detection by adding injector. It offers free wavelength selection, so being an ideal tool for virtually any photometric research application, such as DNA, RNA, protein analysis and more it offers exceptional usability through its intuitive, powerful PC Reader It-II Software. It has been designed to deliver high performance and high quality results.

Features:

- Designed with temperature control incubation system
- Microplate ultraviolet-visible spectrophotometer
- It measures 96 - 384 well microplates
- Built-in grating monochromator
- Wavelength ranges from 200 to 1000 nm
- Microplate oscillating mixing function
- Designed with flashing xenon lamp source, long life and stable illumination
- Instrument parameter setting and instrument self-test function is highly automated
- It offers quantitative or qualitative detection, standard curve, basic calculation, kinetics, and spectrometry and so on
- For high quality detection and performance, PMT is used as a detector
- Identification of filter information is possible due to detachable modular fluorescence filter just by scanning the code
- Convenient filter replacement reduces the operational time
- Orbital, double orbital and linear shaking
- Powerful PC software (Reader It -II), to offer analysis review, validation of data
- It is easy access to data via USB interface and WIFI

Applications:

Microplate Reader is used in life science research work, especially DNA/RNA analysis, cell proliferation and cytotoxicity test, bacterial concentration analysis, pharmaceutical plant analysis, protease and kinase, phospholipase, NADH, GST activity test and used in end point method ELISA / EIA, with a variety of fitting curves for analysis.

Specifications:

Weight	33 kgs
Display	10 inch touch screen
Accuracy	±1% + 0.003 Abs @(0 – 2 Abs) ±2% @(2 – 3 Abs)

Detector	PD
Functions	Absorbance, Fluorescence, Luminescence
Linearity	R2 > 0.999 @(0 – 3 Abs)
Resolution	0.0001 OD
Stray Light	0.1% @220 nm
Data Storage	Up to 10 GB
Fluorescence	<table><tr><td>Reading Mode</td><td>Top reading</td></tr><tr><td>Excitation Light Source</td><td>Xenon lamp</td></tr><tr><td>Detector</td><td>PMT</td></tr><tr><td>Wavelength Range</td><td>EX: 200 – 1000 nm EM: 270 – 850 nm</td></tr><tr><td>Filter EX/EM</td><td>3 groups: EX470|EM525, EX523|EM564, EX624|EM692 (Other wavelengths can freely be replaced)</td></tr></table>
Light Source	Xenon Flash Lamp
Luminescence	<table><tr><td>Detector</td><td>PMT</td></tr><tr><td>Detection Limit</td><td>100 amole/well</td></tr><tr><td>Linear Dynamic Range</td><td>6 logs</td></tr><tr><td>Crosstalk</td><td>? 0.005%</td></tr></table>
Power Supply	AC 100 to 240 V, 50/60 Hz
Reading Time	15 seconds with 96-well plate (fast mode)
Plate Shaking	Orbital, double orbital and linear shaking
Repeatability	CV < 1.0% or SD < 0.003 fast (0 – 3 Abs) CV < 0.5% or SD < 0.003 fast (0 – 3 Abs)
Measuring Range	0 – 4 OD
Wavelength Range	200 nm to 1000 nm with 1 nm steps
Wavelength Accuracy	2 nm
Dimension (W x D x H)	420 x 550 x 386 mm
Incubation Temperature	+5? to 45?
Temperature Uniformity	±0.5 ? @37 ?
Half Bandwidth of Filter	< 2.5 nm

Wavelength Repeatability	0.2 nm