

Agilent BioTek Synergy LX Multimode Reader

Technical details

General	
Detection Modes	UV-Vis absorbance Fluorescence intensity Luminescence
Read Methods	End point (onboard software) End point, kinetic, area scanning, absorbance spectral scanning (under Gen5 control)
Microplate Types	UV-Vis absorbance: 6- to 384-well plates (onboard software) Fluorescence intensity and luminescence: 96- and 384-well plates (onboard software) All modes: 6- to 384-well plates (under Gen5 control)
Other Labware Supported	Agilent BioTek Take3 microvolume plates (onboard software) Agilent BioTek Take3 and Take3 Trio microvolume plates (with available Take3 app)
Shaking	Linear, orbital, double-orbital
Software	Agilent BioTek Gen5 data analysis software Agilent BioTek Gen5 Secure software enables 21 CFR Part 11 compliance (option) End-point protocols (onboard) Full data analysis and reporting (under Gen5 control)
Absorbance	
Light Source	Xenon flash
Detector	Photodiode
Wavelength Selection	Monochromator
Wavelength Range	200–999 nm, in 1 nm increments
Monochromator Bandwidth	≤ 5 nm
Dynamic Range	0–4.000 OD
Resolution	0.001 OD (onboard software) 0.0001 OD (under Gen5 control)
Path Length Correction	Yes
Monochromator Wavelength Accuracy	± 2 nm
Monochromator Wavelength Repeatability	± 0.2 nm (standard deviation)
OD Accuracy	< 1% at 2.0 OD < 3% at 2.5 OD
OD Linearity	< 1% from 0–2.5 OD
OD Repeatability	< 0.5% at 2.0 OD
Stray Light	0.03% at 230 nm
Reading Speed (Kinetic)	96 wells: 12 s 384 wells: 23 s



Figure 1. Agilent BioTek Synergy LX multimode reader nontouch configuration.

Fluorescence Intensity	
Light Source	Halogen
Detector	PMT
Wavelength Selection	Filters
Wavelength Range	320–700 nm (low-noise PMT) 320–850 nm (red-shifted PMT)
Dynamic Range	> 6 decades
Sensitivity	Fluorescein 2 pM
Reading Speed (Kinetic)	96 wells: 24 s 384 wells: 76 s
Luminescence	
Dynamic Range	> 6 decades
Sensitivity	10 amol ATP
Physical Characteristics	
Connectivity	One USB 2.0 port for computer control Two USB 2.0 ports for printer connection and USB flash drive (touch screen configurations only)
Power	External 24 VDC power supply compatible with 100–240 volts AC at 50-60 Hz. 60 W maximum consumption.
Dimensions	38.1 cm H x 38.1 cm W x 38.1 cm D (with touch screen) (15" H x 15" W x 15" D) 30.5 cm H x 38.1 cm W x 38.1 cm D (12" H x 15" W x 15" D)
Weight	≤ 12.3 kg (27 lb)



Figure 2. Agilent BioTek Synergy LX multimode reader touch screen configuration.

Configurations

Part Number	Absorbance	Fluorescence	Luminescence	Touch Screen
SLXA	•			
SLXF		•	•	
SLXFA	•	•	•	
SLXATS	•			•
SLXFTS		•	•	•
SLXFATS	•	•	•	•

Synergy LX is available in both nontouch and touch screen configurations.