BSMR-200F
Microplate Reader



Description

BSMR-200F is a UV/Vis micro-plate spectrophotometer offering 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, user-friendly internal software and comprehensive ReaderIt-II Software.

BSMR-200F microplate reader has been designed to deliver high performance and high quality results with minimal user effort, It measures 96-and 384-well plates and plate shaking motion is linear

Features

1. **10 inch touch screen, and offers stand-alone operation, it is easy to use**
   Intuitive, user-friendly internal software on a 10 inch touch screen for quick measurements. Easy and logical assays setup for demanding assays with the powerful PC software (ReaderIt-II), the PC software can offer to analysis, review, validate data. It is easy access to data via USB interface and WIFI
2. **Freely selectable wavelengths from 200 - 1000 nm for the demands of various assays**
   Wavelength selection in BSMR-200F is done by using an advanced monochromator system. Any wavelength between 200 to 1000nm can be selected at any time. Using the spectral scanning feature, the whole spectrum of a sample be scanned in 1nm increments to allow identification of the optimal measurement wavelength for a new assay.
3. **Both microplate reading for any throughput requirements**
   It measures 96-and 384-well plates
4. **Flexibility and performance for various photometric applications**
   BSMR-200F microplate reader supports endpoint, kinetic and spectral scanning assays. It reads 96- and 384-well microplates with and without lids.
   A broad wavelength range with the UV area, pathlength correction as well as fast spectral scanning makes it an ideal tool for any photometric research application, including DNA, RNA and protein analysis

Molecular Biology Instruments

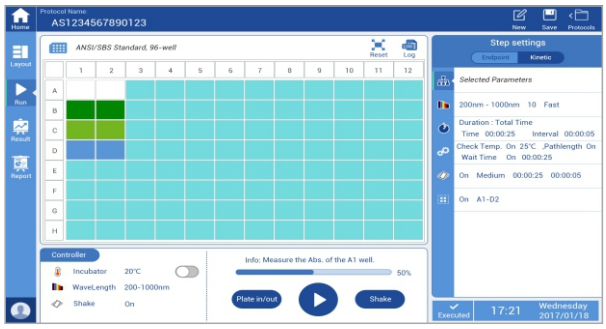
01

Choose detection wavelength freely with raster

BSMR-200F adopt the xenon flash lamp as light source, which choose the wavelength range from 200-1000nm with 1nm step by grating monochromator for the full spectrum scanning only needs 15 seconds each sample.

02

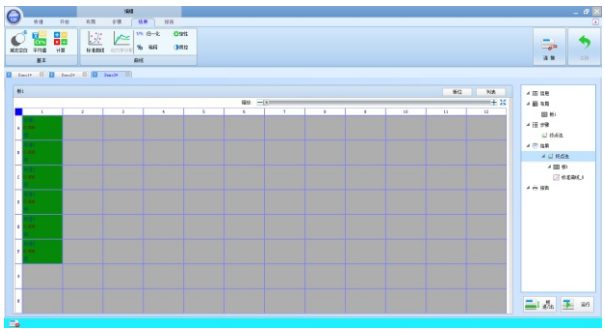
Friendly operation interface which can complete fast detection in BSMR-200F



The built-in software of BSMR-200F which has 10 inch high resolution touch screen and adopts the graphic interface, it makes the operations easy. In addition, you can use USB to export data

04

ReaderIt-II software has the strong data analysis and advanced detection setting ability



Graphic interface ReaderIt- II realized the simulation demonstration function. The data analysis function includes quantitative curve fitting, quantitative analysis, kinetics calculation, custom equation and 4 parameter fitting and so on. Data can be exported to Excel format easily, and the detailed report also can be exported by the built-in tools.

04

Liner shaking function for microplate

1. Three options for the shaking speed: Low speed, Intermediate speed and High speed.
   Low speed: 5Hz, amplitude 15mm
   Intermediate speed: 11Hz, amplitude 3mm
   High speed: 20Hz, amplitude 1mm
2. Shaking mode can be run in the kinetic progress.

05

Incubator function

Temperature range: ambient +5℃ to 45℃

Heating up time: heating up time from 25℃ to 37℃ is less than 45min (96 well plate without cover, 200ul water per well)

Uniformity: < 1.0℃(96 well plate without cover, at 37℃)

Average temperature difference: ±0.5℃ (at 37℃)

06

High quality data and stabilized performance

The optical system makes sure the high quality data and stabilized performance of BSMR-200F

1. Double beam optical system has the reference optical channel system, which make the data more stabilization.
2. Self checking system make sure the device running stabilized.
3. Long life xenon lamp which can be used for 10^9 times.

07

Wide and convenient application

BSMR-200F can be used for spectrum scanning, end point and kinetic detection in 96/384-well plates.

Applications:

1. DNA/RNA quantitative and purity analysis
2. Protein quantitative
3. Enzymology and immune detection
4. Kinetic detection
5. Cell multiplication and cytotoxicity detection
6. Cell apoptosis detection
7. Report gene and GPCR detection

Easy to use:

1. Raster full wavelength which can be used for spectrum scanning to find the best detection wavelength.
2. Touch screen and built-in graphic interface software with android system make the operation easy.
3. Friendly used of ReaderIt- PC software.
4. Fast reading mode only need time 10s for 96 well plate and 30s for 384 well plate.
5. Software upgrade for free.

08

Energy saving mode

1. Stepper motor and incubator shut down.
2. Display turns darken.
3. Click any button to quit the energy saving mode.

Specification

Display	10 inch touch screen
Light source	Xenon flash lamp
Wavelength range	200 - 1000 nm with 1 nm steps
Wavelength Accuracy	±2 nm
Tepetition	±0.2 nm
Wavelength selection	Monochromator
Read-out range	0 - 4.0 OD
Half-bandwidth of filters	<2.5 nm
Detector	two silicon photoelectric detector, one for measurement, another for reference
Linearity @450nm	0 - 2.5 Abs , ±2% (96 well plates)
Accuracy @450nm	1.0% + 0.005 Abs (0 - 2.0 Abs) ; 2.0% [2.0 - 2.5 Abs)
Precision @450nm	CV < 0.5% accurate model ; CV < 1.0% fast mode
Test speed	10 seconds with 96-well plate (fast mode); 30 seconds with 96-well plate (accurate model)
Plate shaking	Linear; three options for speed
Test speed	15 seconds with 96-well plate (single wavelength); 30 seconds with 96-well plate (double wavelength)
Incubator	From ambient + 5℃to 45℃
UI	Integrated software or PC control software
Analysis software	ReaderIt-II
User interface	Touch screen, android system, 10 inch touch screen, external keyboard mouse
Storage	16G memory, more than 10,000 test records can be stored
Ports	3 USB ports, for PC, printer and USB-disk
Automated systems	Temporarily unable compatible with automated systems
Power supply	DC24V 6.5A
Dimensions(W×D×H)	300×500×290mm
Weight	15kg

Ordering information

NO.	Code	Description
01	BSMR-19010-00	BSMR-200F Microplate Reader
02	BSMR-19011-01	ReaderIt-II Software
03	BSMR-16051-26	Printer
04	BSMR-16051-27	Printer Paper