ALLSHENG

Microplate Reader

One-Stop Solution

Choose a microplate reader that best suits your research needs...

Microplate reader is a high-quality scientific research instrument specially designed for medicine, biology, drug research and development, food and cosmetics industries. Allsheng's microplate reader series have the characteristics of flexibility, ease of use and diverse styles. There are not only single-function models, but also "three-in-one" combined multi-mode models; not only filter-type detection systems, but also monochromator detection systems with raster. You can choose the appropriate configurations and models according to the laboratory application and budget.

Multi-Mode Microplate Reader

Feyond-A300 / A400 / A500

Feyond-MF200 / ML200

Feyond-M300 / M400 / M500

Single-Mode Microplate Reader

Fluorescence

Feyond-F100

Luminescence

Feyond-L100

Absorbance

FlexA-200 / 200HT FlexB-200

AMR-100 / 100T

AMR-Mini / MiniT

Function Configuration Overview

Multi-Mode	Monochromator + Filter Type							
	Feyond-A300	Feyond-A400	Feyond-A500	Feyond-MF200	Feyond-ML200	Feyond-M300	Feyond-M400	Feyond-M500
ABS-monochromator	●	●	●	●	●	●	●	●
FL-filter	●	●	●	●		●	●	●
TRF		●	●				●	●
FP-filter			●					●
LUM	●	●	●		●	●	●	●
Incubation	●	●	●	●	●	●	●	●
Page number	P04	P04	P04	P09	P09	P09	P09	P09

Single-Mode	Monochromator Type			Filter Type					
	FlexA-200	FlexB-200	FlexA-200HT	Feyond-F100	Feyond-L100	AMR-100	AMR-100T	AMR-Mini	AMR-MiniT
ABS-monochromator	●	●	●						
ABS-filter						●	●	●	●
FL-filter				●					
LUM					●				
Incubation	●	●	●	●	●		●		●
Cuvette			●						
Page number	P21	P21	P21	P15	P17	P25	P25	P28	P28

Application Examples

Absorbance

Elisa

Cytotoxicity

Cell Multiplication

Nucleic Acid Quantification

Protein Quantification

Enzymatic Activity

Bacterial Toxicology

Physiological and Biochemical

Microbial Growth Curve

Fluorescence

GFP

ROS

FRET

PicoGreen

RiboGreen

Cell Viability

Apoptosis

Signaling

Nucleic Acid Quantification

Luminescence

GPCR

ATP Quantification

Luminescent Elisa

Signaling

Single / Double Luciferase Reporter Gene

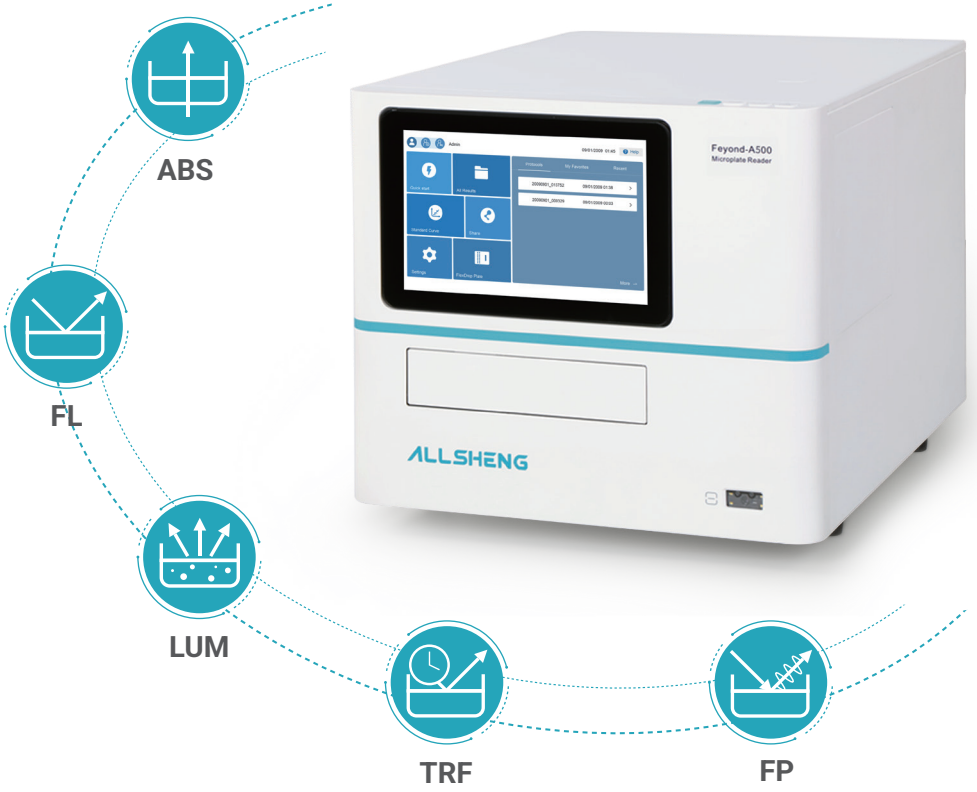
Multi-Mode Microplate Reader

Allsheng multi-mode microplate reader series products can meet your various detection needs for microplates. We offer a variety of microplate reader solutions including absorbance, fluorescence, luminescence, time-resolved fluorescence, and fluorescence polarization to meet your specific workflow needs. We also offer a range of special, modular, and upgradeable detection accessories to enhance your detection experience.

Multi-Mode Microplate Reader Selection Guide

Model	Feyond-A300	Feyond-A400	Feyond-A500	Feyond-MF200	Feyond-ML200	Feyond-M300	Feyond-M400	Feyond-M500
ABS	✓	✓	✓	✓	✓	✓	✓	✓
FL	✓	✓	✓	✓	--	✓	✓	✓
LUM	✓	✓	✓	--	✓	✓	✓	✓
TRF	--	✓	✓	--	--	--	✓	✓
FP	--	--	✓	--	--	--	--	✓
Plate	6 - 384							
Light source	Xenon lamp							
Wavelength range	ABS: 200 - 1000 nm			ABS: 190 - 1000 nm				
	FL: EX: 200-1000 nm; EM: 270-850 nm				--	FL: EX: 200-1000 nm; EM: 270-850 nm		
	LUM: 200-850 nm			--	LUM: 200-850 nm			
	--		FP: 300 - 850 nm	--				FP: 300 - 850 nm
Wavelength selection	ABS: monochromator / FL: filter							
Incubation temperature	RT. +4 °C~45 °C							
Screen size	10 inch							
System	Android system							
Accessories	u-Nano, injector							
Analysis software	Reader It-II			Reader It-III				
								

Feyond-A300 / A400 / A500 Microplate Reader



Feyond-A series multi-mode microplate reader is specially designed for medical, biological and pharmaceutical research and development institutions to meet the needs of various drug development and life science research. The high-quality detection performance ensures high-quality analysis based on molecular biology, biochemistry and cytology.

In addition to the most basic absorbance, fluorescence and chemiluminescence detection functions, high-performance fluorescence polarization and time-resolved fluorescence detection can also be selected. The instrument is compatible with the client-side modular upgrade function, and users can upgrade and equip with microplates and automatic injectors according to their needs.

The absorbance detection is based on monochromator, which can realize continuous spectrum detection of 200-1000 nm without a filter, which meets almost all absorbance detection applications. Fluorescence detection adopts the detection light path of the filter. The fluorescence path composed of Xenon lamp, filter and PMT can fit the characteristics of fluorescent dye to the greatest extent, ensuring excellent detection performance and high-quality detection effect. The optimized optical path design can be used for time-resolved fluorescence and fluorescence polarization detection with higher sensitivity requirements. Luminescence detection also uses PMT as the detector, and the sensitivity can reach a dynamic range of more than 6 orders of magnitude.

The detachable modular fluorescence detection filter can identify the filter information only by scanning the code. The modular design provides the convenience of filter replacement to shorten the operation time.

The instrument is equipped with a 10-inch touch screen, According to the researcher's operation habit of the instrument, the screen angle can be converted through the LCD control button to facilitate the researcher's setting of the instrument. The instrument is no need to connect a computer. The layout, operating parameters, and algorithm and the other settings can be completed by a single machine. The built-in software of the instrument includes multiple algorithm analysis functions of standard curve, qualitative and quantitative, basic calculation, kinetics, spectroscopy and etc, which makes more convenient for the processing and research of experimental data.

Incubation adopts PID temperature control technology. When the experimental plate is covered or closed, the edge effect can be reduced through the differential temperature between the top and bottom of the plate, so as to ensure the data stability of the sample in the process of dynamic analysis.

In addition, the instrument has a code scanning function, which can not only identify the filters informations, but also create a QR code for the experimental program or standard curve. Researcher can quickly import the experimental program into the instrument through the QR code.

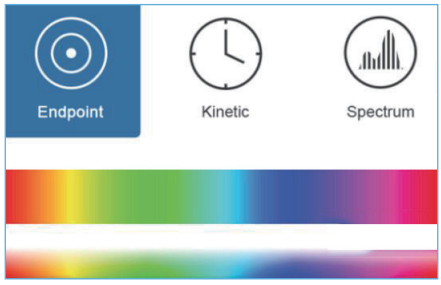
Flexible and Changeable Upgradeability

- UV / Vis Absorbance Spectrum Scanning
- Luminescence Glow / Flash
- Fluorescence Polarization (FP)
- Injector Single / Dual
- Fluorescence Top Reading
- Time-Resolved Fluorescence (TRF)
- Incubator Ambient +4 °C~45 °C
- u-Nano Plate Testing

UV / Vis Absorbance

Wavelength selection is done by using an advanced monochromator system. Any wavelength between 200 to 1000 nm can be selected. Using the spectral scanning feature, the whole spectrum of a sample be scanned in 1 nm increments to allow identification of the optimal measurement wavelength for a new assay.

Long life xenon lamp which can be used for 10^9	Fast reading mode only need time 15 s for 96-well whole plate	Can be used for spectral scanning, endpoint and kinetic detection



Fluorescence

Instrument is equipped with filter-based fluorescence optics and dichroic mirrors for screening applications such as fluorescence polarization, and TR-FRET. Standard applications such as fluorescence-based DNA / RNA quantification assays are not only supported in microplates, but also in low volume u-Nano ultra-micro plate.

The independent removable filter modules make it more convenient for users to replace the filter. The filter-based fluorescence optics detection ensures high sensitivity, greater light transmission, precise control over transmitted peak shape, excellent blockage of undesired wavelengths. This is ideal for excitation and emission applications. The filters are also the technically preferred and most cost efficient technology for non-abosrbance based assays.

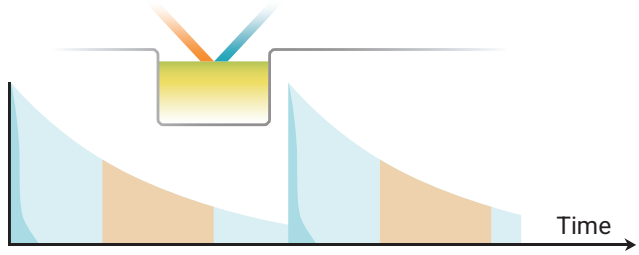
Luminescence

Feyond series luminescence microplate readers show excellent sensitivity and wide dynamic range in both glow and flash based assays. The PMT enhances the maximum sensitivity of weak luminescence signals, prevents oversaturation of high signals, effectively improves the detection range of luminescence. The optimized light path minimizes signal crosstalk between holes and ensures the accuracy of experimental results. The precise dual-channel injector ensures assay performance even when assaying high-density 384-well plates.

Time-Resolved Fluorescence (TRF)

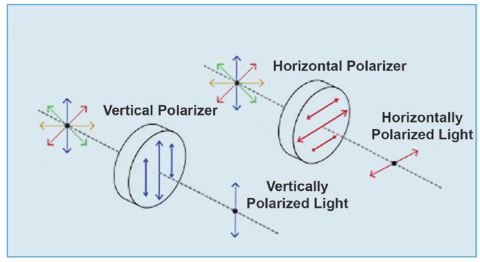
Time-resolved fluorescence is based on lanthanide elements as dyes. When excited, the emission time is much longer than that of ordinary fluorescein. After the excitation light is turned off, the emitted light can still be continuously expressed and released, thereby eliminating the interference of excitation light and scattered light.

Time-resolved fluorescence has high sensitivity, strong specificity, good stability, and short operation flow. It is suitable for ultra-micro analysis in biology and medicine, hormone detection, viral hepatitis marker detection, target cell marker detection, and drug screening.



Fluorescence Polarization (FP)

The optimized filter design of Feyond-A500 can effectively reduce detection deviation and is often used to detect intermolecular interactions, such as the determination of drugs and hormones, tyrosine kinase detection, receptor / ligand research, protein / polypeptide interactions, DNA / protein interactions, etc.

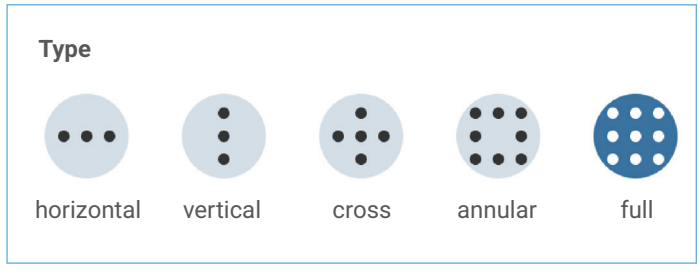


Multiple Shaking Modes

There are three types of shaking modes: linear, orbital and double orbital, and a variety of shaking speeds (rpm) can be freely selected, which is more conducive to the realization of dynamic background vibration of different types of samples.

Well Scanning Function

The scanning detection method of up to 900 points per well is realized by using flexible orbital motion and accurate detection site, which reduces the difference reading caused by different positions.

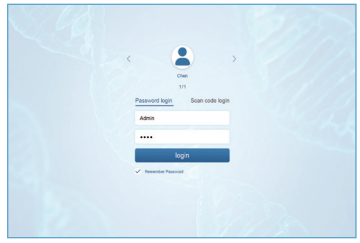


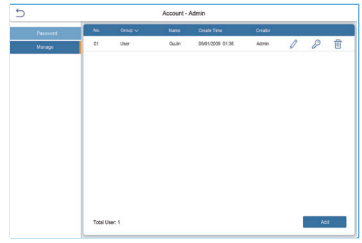
Easy-to-Use and Flexible Software

Multi-mode microplate reader provides powerful independent instrument control software. Through the 10-inch high-resolution touch screen, you can perform board layout, parameter setting and data analysis operations. The intuitive interface, simple operation, and abundant functions will significantly improve the efficiency of your experiment.

User Authority Classification

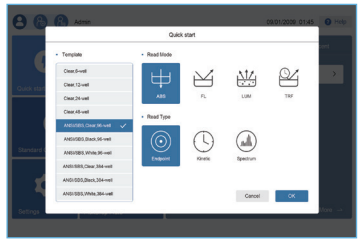
- User permissions are divided into four levels, with clear permissions
- The users have independent accounts and passwords to ensure the safety and confidentiality of experimental results





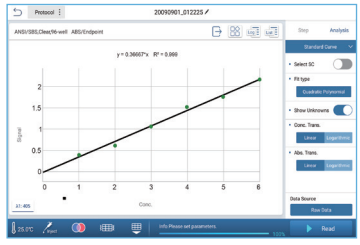
Intuitive Interface Display

- Intuitive selection of function modes, easy parameter setting
- Programs and results are stored independently, making it easy to be found the required applications



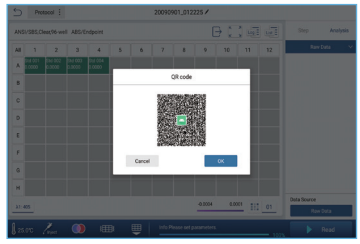
Powerful Data Analysis and Process

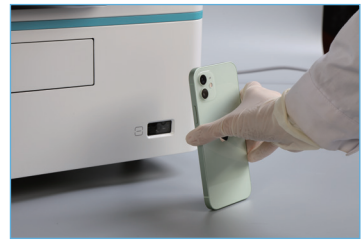
- Provide multiple data processing methods including blank subtraction, standard curve creation, qualitative analysis, quality control, kinetics and spectral analysis
- Algorithm customization: according to your assays needs, can customize the required algorithm



Liberalized User Communication

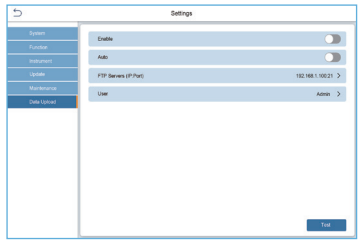
- The software has with a shared library, which can store the program, results and standard curves for sharing them with others
- The program and standard curve can be created in real time to a QR code, and the required content can be imported only by scanning the code with the instrument

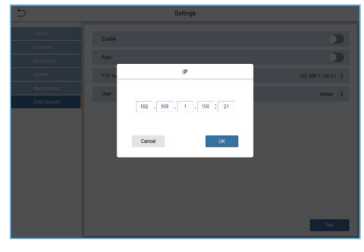




FTP (File Transfer Protocol)

- Upload the data directly to a computer with a FTP server, and users can view the data results at any time in the authorized folder





Optional Accessories

u-Nano Ultra-Micro Plate

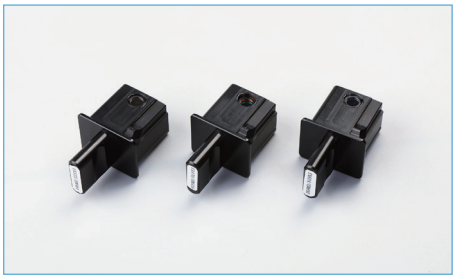
- Quickly complete high-throughput quantification of nucleic acid and proteins without samples dilution.
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed.
- No need to calibrate; reliable performance.

ABS Optical Performance Validation Board

- ABS optical performance validation board is mainly used to comprehensively evaluate the performance of absorbance function. It can conveniently, quickly and easily check whether absorbance function of the instrument is working properly. It is suitable for the system check of installation and operation qualification.

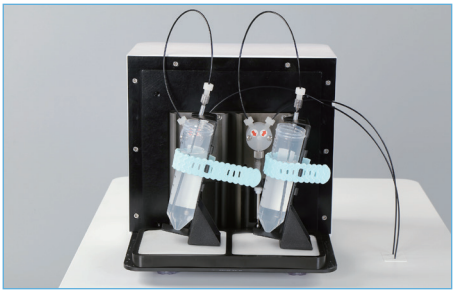
Modular Filter

- The easy-to-disassemble modular filter will bring an economical and highly sensitive solution to your fluorescence detections. Only by scanning the QR codes on the module, the instrument can read the filter information to ensure accurate experimental parameters for convenient and quick operation.



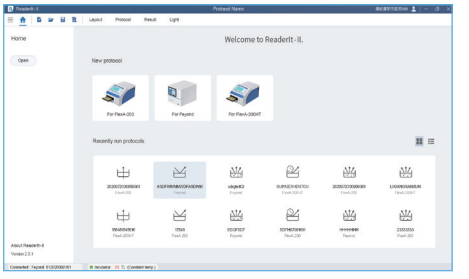
MSS-2 Automatic Injector Module

- Equipped with dual automatic injector modules of the instrument is critically important for a myriad of assays, most notably flashluminescence and calcium flux assays etc. The instrument is equipped with a standard injector module, which can meet the precise sample addition operation of 384-well plates and realize the possibility of rapid detection of high-throughput plates.
- The automatic injector module can be purchased at the same time with the device and can also be upgraded later.
- Liquid injection protection: The software has a liquid injection protection function to effectively prevent the risk of sample overflow.



ReaderIt-II PC Analysis Software

- The ReaderIt-II PC analysis software is with graphical operation interface design. Data export is convenient and fast. Detailed result reports can be created through built-in tools. ReaderIt-II software can also provide a more comprehensive and complex data analysis algorithm than the instrument APP software. The ReaderIt-II PC software makes more convenient for customers to process assay results.



Feyond-MF200 / ML200 / M300 / M400 / M500 Microplate Reader

ABS FL LUM TRF FP

The Feyond-M series is a cost-effective multi-mode microplate reader combining economy and high-performance. It is not only suitable for common detection of absorbance, fluorescence and luminescence, but also suitable for detection of time-resolved fluorescence and fluorescence polarization applications with special requirements.

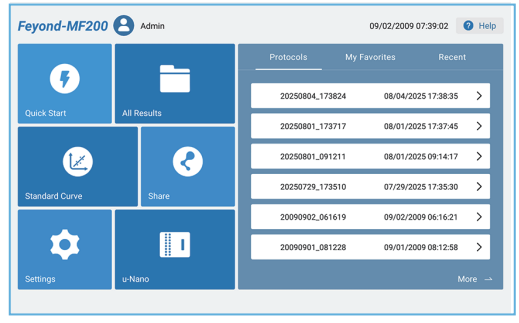
Multiple Models for Choice

Model	Feyond-MF200	Feyond-ML200	Feyond-M300	Feyond-M400	Feyond-M500
ABS	●	●	●	●	●
FL	●		●	●	●
TRF				●	●
FP					●
LUM		●	●	●	●

Diversified Operations

Built-In Intelligent Touch Screen Version

The standard 10-inch rotating touch screen is equipped with built-in software to independently complete parameter setting and data processing; the rotation angle of the screen is ≤90°, and the angle can be manually adjusted to adapt to researchers of different heights.

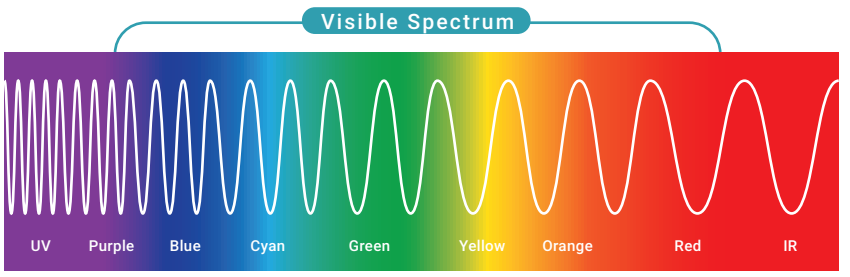


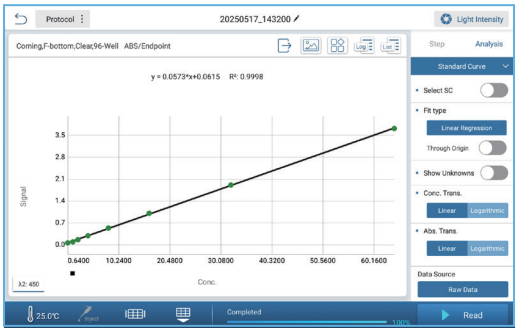
PC Control Version

It is suitable for traditional operation habits, and realizes computer control and high-throughput data analysis through Reader It-III software.

Absorbance

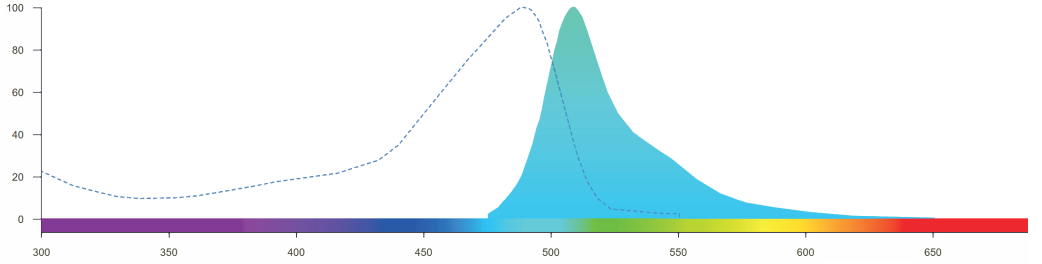
Using the grating monochromator design, it can achieve continuous spectral scanning with a wavelength range from 190-1000 nm and a step of 1 nm. It supports ultraviolet to near-infrared spectrum analysis, and the wavelength can be freely selected to easily realize various application detection. In addition, the linear correlation coefficient can reach more than 0.999 within 0-3.5 Abs.





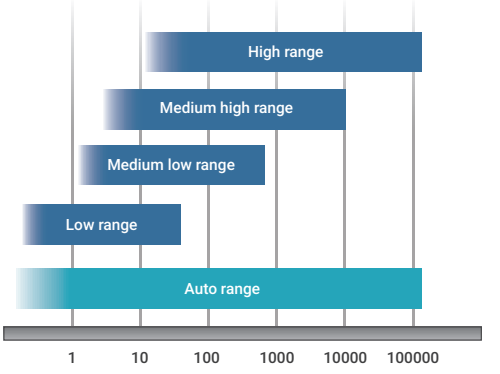
Fluorescence

Utilizing a combination of xenon lamps, filters, and high-sensitivity photomultiplier tubes (PMT), this system significantly enhances detection sensitivity. The automated filter wheel design supports up to 8 excitation and emission filter combinations, offering 64 customizable configurations without manual module replacement. It enables simultaneous detection of 8 fluorescence channels per cycle, effortlessly achieving both fluorescence intensity and FRET (Fluorescence Resonance Energy Transfer) measurements.
For multi-channel detection applications, the software has two reading modes, which can be selected to read by well or by plate according to experimental needs.



Luminescence

Utilizing a LUM PMT detector with standard 470 nm and 560 nm filters, this system significantly enhances detection of dual luciferase reporter genes. The 8-position filter wheel design allows both direct measurement and customization of alternative wavelength filters. The innovative optical path configuration effectively reduces cross-well signal interference, achieving crosstalk below 0.005%. At the same time, the instrument can be combined with an automatic sampler to realize the efficient detection of flash reagent kits.



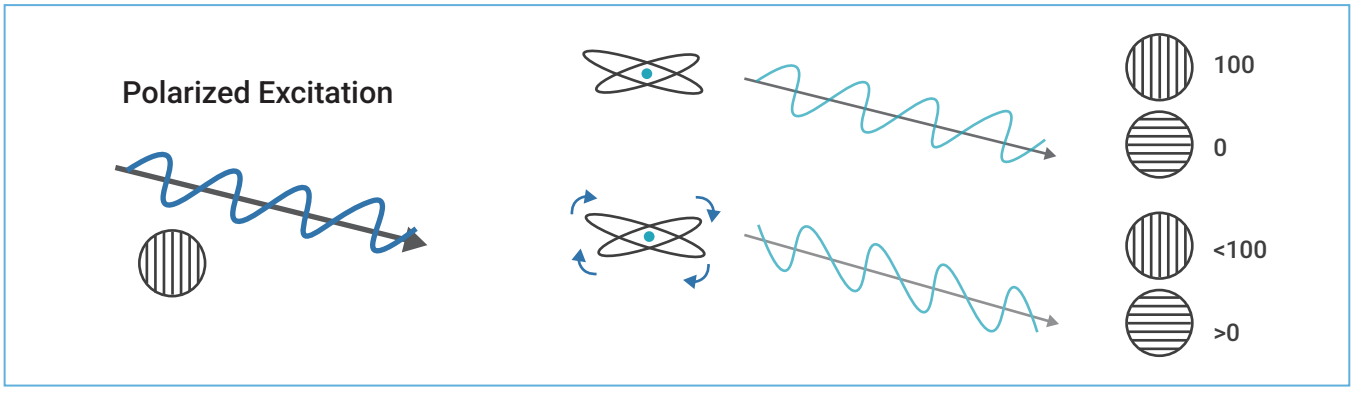
Time-Resolved Fluorescence

The Feyond-M400/M500 dedicated TRF filter can achieve infrared fluorescence detection, and the 8-position filter wheel design effectively improves the detection speed of TR-FRET.

Lanthanides	58 Ce 140.12 Cerium	59 Pr 140.91 Praseodymium	60 Nd 144.24 Neodymium	61 Pm 145 Promethium	62 Sm 150.36 Samarium	63 Eu 151.96 Europium	64 Gd 157.25 Gadolinum	65 Tb 158.93 Terbium	66 Dy 162.5 Dysprosium	67 Ho 164.93 Holmium	68 Er 1.0079 Erbium	69 Tm 168.93 Thulium	70 Yb 173.04 Yttersium	71 Lu 1.0079 Lutetium
Actinides	90 Th 232.04 Thorium	91 Pa 231.04 Protactinium	92 U 238.03 Uranium	93 Np 237 Neptunium	94 Pu 244 Plutonium	95 Am 243 Americium	96 Cm 247 Curium	97 Bk 247 Berkelium	98 Cf 251 Californium	99 Es 252 Einsteinium	100 Fm 257 Fermium	101 Md 258 Mendelevium	102 No 259 Nobelium	103 Lr 1.0079 Lawrencium

Fluorescence Polarization

Feyond-M500 adopts a unique optical path design to effectively reduce detection bias, and has advantages in studying receptor / ligand binding, protein interaction and DNA / protein binding.

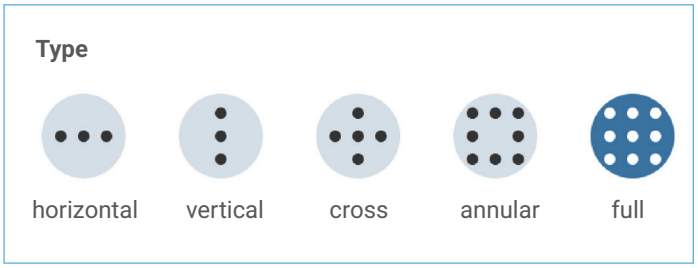


Multiple Shaking Modes

There are three types of shaking modes: linear, orbital and double orbital, and a variety of shaking speeds (rpm) can be freely selected, which is more conducive to the realization of dynamic background vibration of different types of samples.

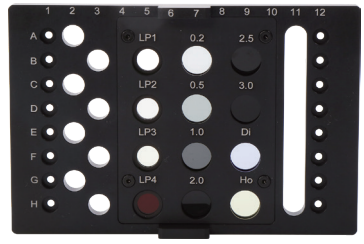
Well Scanning Function

The scanning detection method of up to 900 points per well is realized by using flexible orbital motion and accurate detection site, which reduces the difference reading caused by different positions.



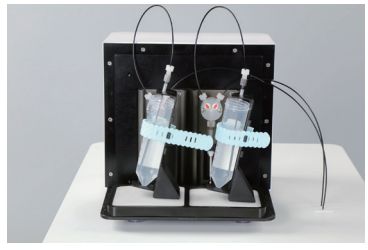
Optional Accessories

u-Nano
Ultra-Micro Plate



ABS Optical
Performance
Validation Board

ReaderIt-III
PC Software



MSS-2
Automatic
Injector

Basic Parameter

Model		A Series	M Series
	Read type	Endpoint, kinetic, spectrum scanning, and well scanning	
Support	Plate	6-384 well	
	Accessories	u-Nano, injector	
Shaking & Incubation	Shaking mode	Linear, circular, double circular (strength and speed adjustable)	
	Incubation temperature	RT +4 °C ~ 45 °C	
	Temperature accuracy	±0.5 °C @ 37 °C	
Software	Software interface	Chinese / English	
	Screen size	10-inch	
	Operation method	Touch screen (Android system) / PC (Windows system)	
	Data capacity	10 GB	
	Compatibility	Support PC software, Win7 / Win10 64 bit	
	Network transmission	The test data report can be uploaded to the PC server through FTP	
Others	Instrument port	A series: 2 USB A ports, 1 USB B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)	
		M series: touch screen version: 2 USB A ports, 1 USB B port, 1 Ethernet port, Rs232 bus interface PC control version: 1 USB B port, Rs232 bus interface	
	Power supply	AC 100-240 V, 50-60 Hz	
	Dimension (W×D×H)	420×550×386 mm	320×435×335 mm
	Weight	33 kg	25 kg

Technical Parameter

ABS

Model	Feyond-A300/A400/A500	Feyond-MF200	Feyond-ML200	Feyond-M300/M400/M500
Light source	Xenon lamp			
Wavelength accuracy	2 nm			
Wavelength repeatability (SD)	0.2 nm			
Half width (FWHM)	≤2.5 nm			
Detector	PD			
Wavelength range	200-1000 nm, 1 nm step	190-1000 nm, 1 nm step		
Measure range	0 - 4 OD			
Resolution	0.0001 OD			
Accuracy @450 nm	96-precision mode: ±(1.0%+0.003 Abs) @ (0.0-2.0 Abs] ±2.0% @ (2.0-3.0 Abs]			
Repeatability @450 nm	A series: CV <1.0% or SD <0.003 fast (0.0 - 3.0Abs]; CV <0.5% or SD <0.003 accurate (0.0 - 3.0Abs]			
	M series: CV < 1.0% fast (0.0 - 3.0]; CV < 0.5% accurate (0.0 - 3.0]			
Stray light	0.1% @220 nm			
Linear @450 nm	R^2 ≥ 0.999 @ [0.0 - 3.0 Abs]			
Reading time	96-well plate: fast <15 s (A1 to H1)			

FL (Except Feyond-ML200)

Reading mode	Top reading
Excitation light source	Xenon lamp
Detector	PMT
Wavelength range	EX: 200 - 1000 nm; EM: 270 - 850 nm
Filter EX/EM	A series: 3 groups: EX485/EM530, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)
	M series: 3 groups: EX470/EM525, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)
Linear dynamic range	6 logs
Detection limit	A series: 1 pM (optimization condition)
	M series: 2 pM (optimization condition)

LUM (Except Feyond-MF200)

Detector	PMT
Detection limit	A series, Feyond-ML200: ≤15 amol/well
	Feyond-M300 / M400 / M500: ≤25 amol/well
Linear dynamic range	6 logs
Crosstalk	≤ 0.005%
Wavelength range	200-850 nm
Filter (Only Feyond-ML200)	470 nm, 560 nm

TRF (Feyond-A400 / A500 / M400 / M500)

Filter EX/EM	1 group: EX365/EM612
Detection limit	0.02pM (optimization condition)

FP (Feyond-A500 / M500)

Filter EX/EM	1 group: EX485/EM530
Detection limit	sd≤5 mP@1 nm fluorescein sodium

Accessory Parameter

u-Nano	Sample number	1-16	
	Sample detection volume	2-4 μL	
Automatic Injector	Quantity	1 / 2	
	Dispensing volume	5-1000 μL, 1 μL increment	
	Liquid injection speed	125-500 μL/s	
	Accuracy	±1 μL @ 5-50 μL	±2% @ 51-1000 μL
	Waste liquid collection	25 mL	
Soft-ware	Analysis software	A series: ReaderIt-II software	M series: ReaderIt-III software

Ordering Information

Code	Product description
AS-19050-00	Feyond-A300 microplate reader (multi-mode)
AS-19060-00	Feyond-A400 microplate reader (multi-mode)
AS-19070-00	Feyond-A500 microplate reader (multi-mode)
AS-19110-00	Feyond-MF200 microplate reader
AS-19120-00	Feyond-MF280 microplate reader (without screen)
AS-19130-00	Feyond-ML200 microplate reader
AS-19140-00	Feyond-ML280 microplate reader (without screen)
AS-19150-00	Feyond-M300 microplate reader
AS-19160-00	Feyond-M380 microplate reader (without screen)
AS-19170-00	Feyond-M400 microplate reader
AS-19180-00	Feyond-M480 microplate reader (without screen)
AS-19190-00	Feyond-M500 microplate reader
AS-19200-00	Feyond-M580 microplate reader (without screen)

Code	Product description
AS-19051-01	485-530 fluorescence filter (standard)
AS-19051-02	523-564 fluorescence filter (standard)
AS-19051-03	624-692 fluorescence filter (standard)
AS-19051-04	LUM filter
AS-19051-05	365-612 time-resolved fluorescence filter (standard)
AS-19051-06	485-530 fluorescence polaroid filter (standard)
AS-19111-01	ReaderIt-III PC analysis software
AS-19111-02	470-525 fluorescence filter (standard)
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-02	u-Nano ultra-micro plate
AS-19011-03	ABS optical performance validation board
AS-19011-04	MSS-2 automatic injector
AS-19091-01	Lum-check standardization light microplate

Single-Mode Microplate Reader

Catering to the demand for single-application testing, Allsheng offers a range of single-mode microplate readers. These include the absorbance microplate reader AMR-Mini, AMR-100 and FlexA-200, which are the preferred choices for enzyme-linked immunosorbent assays. Additionally, there are the single-fluorescence microplate reader Feyond-F100, commonly utilized for fluorescent protein detection, and the single-luminescence microplate reader Feyond-L100, typically employed in dual-luciferase reporter gene assays.

Single-Mode Microplate Reader Selection Guide

Model	Feyond-F100	Feyond-L100	FlexA-200	FlexB-200	FlexA-200HT
Plate	6-384		96 / 384		
Detection mode	Fluorescence	Luminescence	Absorbance		
Light source	Xenon lamp	--	Xenon lamp		
Wavelength range	EX: 200-1000 nm EM: 270-850 nm	200-850 nm	200 - 1000 nm		
Wavelength selection	Filter		Monochromator		
Incubation temperature	RT +4 ℃ ~ 45 ℃				
Screen size	10-inch touch screen				
Registration certificate for medical device	--		--	✓	--
Cuvette	--		--		✓
Analysis software	Reader It-II				
					

Single-Mode Microplate Reader Selection Guide

Model	AMR-100	AMR-100T	AMR-Mini	AMR-Mini T
Detection mode	Absorbance			
Plate	96			
Light source	Halogen lamp		LED	
Wavelength range	340 - 750 nm		400 - 750 nm	
Wavelength selection	Filter		Filter	
Incubation temperature	--	RT. +4 °C~50 °C	--	RT. +4 °C~50 °C
Screen size	7-inch touch screen		Independent tablet	
Registration certificate for medical device	✓	--	--	
Cuvette	--		--	
Analysis software	Reader It-I		--	
				

Feyond-F100 Fluorescence Microplate Reader

Feyond-F100 is an economical, single fluorescence microplate reader. Its high-quality optical path design makes it have excellent optical performance. This product is designed for bioluminescence scientific research, and can meet the requirements of nucleic acid quantification, fluorescent protein determination, molecular interaction studies, Ca^{2+} flow analysis, as well as reporter genes, fluorescent kinases and cell-based studies.

Long-Life Xenon Light Source

Feyond-F100 adopts high-energy xenon lamp as light source, which can realize high-resolution, high-sensitivity and ultra-fast detection test. The service life can be up to 10 years, no need to warm up, and it can be detected when it is turned on.

High Performance Filter

Filter-based fluorescence detection has high advantages in sensitivity and wavelength selection. Filters provide higher sensitivity, greater light transmittance, better filtering, and faster wave range selection. Feyond series adopts the optical path design of xenon lamp and filter, which can make the detection limit reach 1 pM (sodium fluorescein).

Well Scanning Function

Using flexible orbital motion and precise detection points to achieve a scanning detection method of more than 900 points per well, providing more accurate and comprehensive detection data for cells cultured in suspension, reducing differences caused by different positions reading. The analysis software can give the information of each point scan, and can display the point information of each well in color blocks.

Type

Precise Kinetics

Feyond-F100 can be used for fast kinetic analysis (such as Ca^{2+} flux analysis) with a high-precision injector. It can monitor the fast kinetic reaction in time from the beginning of the experiment to ensure the integrity of the experiment.

Feyond-F100 Fluorescence Microplate Reader

Common Applications

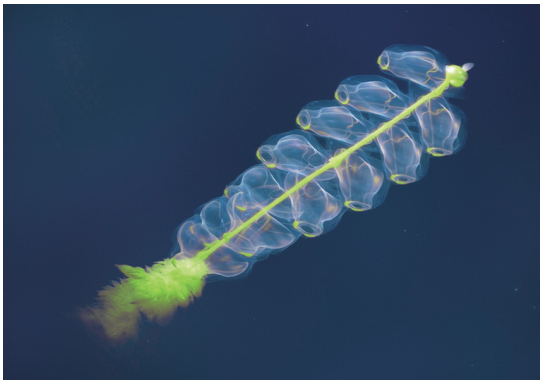
- Ca^{2+} flow analysis
- Cell proliferation
- Cytotoxicity
- Cell adhesion
- Ion channel
- Immunodetection
- Enzymatic activity
- Phagocytosis
- Nucleic acid quantitative assay
- Bacterial quantitative assay
- Oligonucleotide assay
- Reporter gene detection

Feyond-L100 Luminescence Microplate Reader

Feyond-L100 is a compact and powerful luminescence microplate reader. It can provide a variety of microplate readings, and the fast reading speed combined with the automatic injector can effectively improve your work efficiency.

High-Sensitivity Detection

Feyond-L100 is equipped with a high-sensitivity luminescence detection module, which can realize a variety of throughput detection in 6-384-well plates, and can also accurately quantify micro samples.

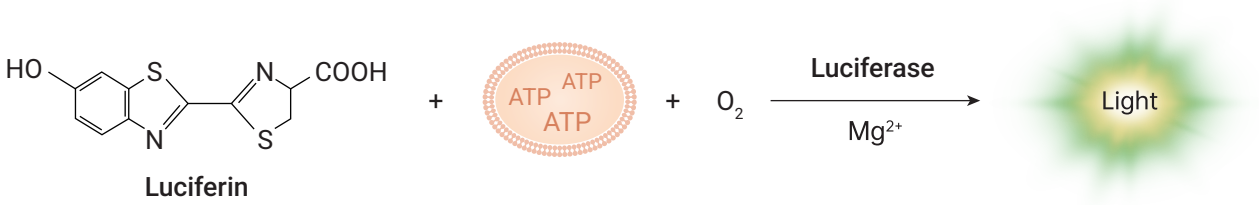


Ultra-Low Well-to-Well Interference

The unique optical path design effectively reduces the signal cross-interference between holes, and the cross-talk is less than 0.05%.

Quick Flash Test

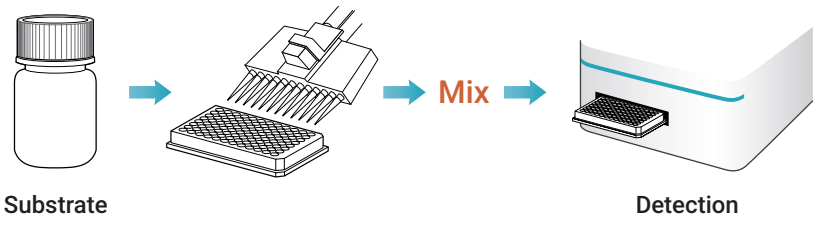
The perfect combination of precise injectors and detection modules provides an easy-to-use solution for cell-associated luciferase reporter gene detection and ATP-based luminescence quantification.



Luminescence Kit

Allsheng luminescence series kits are based on the construction, transfection and expression of luciferase reporter gene vector. The luciferase can catalyze the conversion of the substrate and emit photons, and finally the detection system is used to obtain the detection data.

The reagent adopts an optimized reaction system, which is easy to prepare, easy to operate and has high accuracy.



- ATP bioluminescence detection kit
- Single luciferase reporter gene detection kit
- Double luciferase reporter gene detection kit
- Gaussia luciferase detection kit

Standard Filter

The chemiluminescence detection function is equipped with two filters, 470 nm and 560 nm, which can effectively reduce the background noise and improve the detection sensitivity during the luciferase reporter gene detection process.

Low Noise PMT

Combined with low-noise PMT, the collected signal is more accurate, and the lowest detection limit can reach 5 amol/well (ATP).

Flexible Options

Filters with specific wavelengths can be customized according to experimental needs, providing excellent degrees of freedom for luminescence experiments and more convenient for most typical chemiluminescence experiments, such as ATP quantification, chemiluminescence ELISA, reporter genes, etc.

Technical Parameter

Model		Feyond-L100
Luminescence	Detector	PMT
	Detection limit	5 amol/well (optimization condition)
	Linear dynamic range	7 logs (flash ATP)
	Crosstalk	≤ 0.05 %
	Wavelength range	200-850 nm
	Filter	470 nm, 560 nm

Model		Feyond-F100
	Read type	Endpoint, kinetic, and well scanning
Fluorescence	Reading time	Top reading
	Excitation light source	Xenon lamp
	Detector	PMT
	Wavelength range	EX: 200-1000 nm; EM: 270-850 nm
	Filter EX/EM	3 groups: EX485/EM530, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)
	Detection limit	1 pM (optimization condition)
	Linear dynamic range	6 logs

Basic Parameter

Model		Feyond-F100	Feyond-L100
Support	Plate	6-384 well	
	Accessories	Injector	
Shaking & Incubation	Shaking mode	Linear, circular, double circular	
	Incubation temperature	RT+4 °C ~ 45 °C	
	Temperature accuracy	±0.5 °C @37 °C	
Software	Software interface	Chinese / English	
	Screen size	10-inch	
	Operation method	Capacitive screen touch, mouse	
	Data capacity	10 GB	
	Compatibility	Support PC software, Win7 / Win10 64 bit	
	Network transmission	The test data report can be uploaded to the PC server through FTP	

Automatic Injector	Quantity	1/2
	Dispensing volume	5-1000 μL, 1 μL increment
	Liquid injection speed	125-500 μL/s
	Accuracy	±1 μL @5-50 μL ±2 % @51-1000 μL
	Waste liquid collection	25 mL
Soft-ware	Analysis software	ReaderIt-II software
Others	Instrument port	2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)
	Power supply	AC 100-240 V, 50-60 Hz
	Dimension (W×D×H)	420×487×318 mm
	Weight	30 kg

Ordering Information

Code	Product description
AS-19090-00	Feyond-L100 luminescence microplate reader
AS-19100-00	Feyond-F100 fluorescence microplate reader
AS-19091-01	LUM-470 filter (standard)
AS-19091-02	LUM-560 filter (standard)
AS-19101-01	485-530 fluorescence filter (standard)
AS-19101-02	523-564 fluorescence filter (standard)
AS-19101-03	624-692 fluorescence filter (standard)

FlexA-200 / 200HT, FlexB-200 Microplate Reader

FlexA-200 microplate reader is a high-quality microplate reader based on a monochromator with a wavelength range of 200~1000 nm. It can be used for spectral scanning, endpoint method and kinetic detection. Suitable for 96-well plates and 384-well plates with and without lids. FlexA-200 can be shaken and cultured in microplates, and the culture temperature is up to 45 °C.

It can be operated independently through the built-in software of the instrument, and also can be operated by the ReaderIt-II software.

*The Medical Device Registration Certificate Number of FlexB-200: Zhejiang Device Registration Approval No. 20252221403

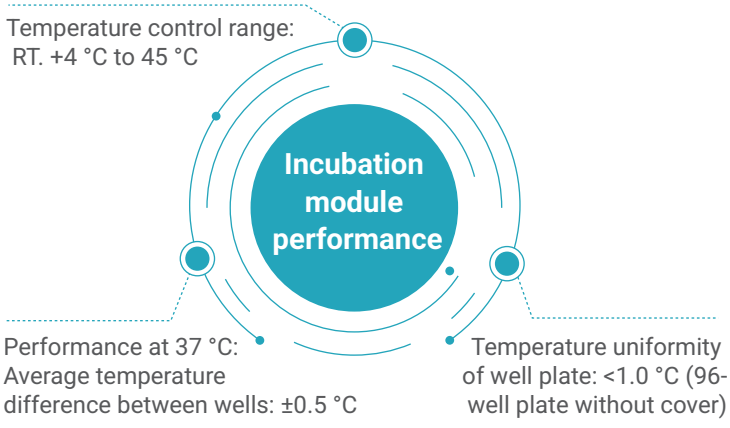
High Quality Data and Stable Performance

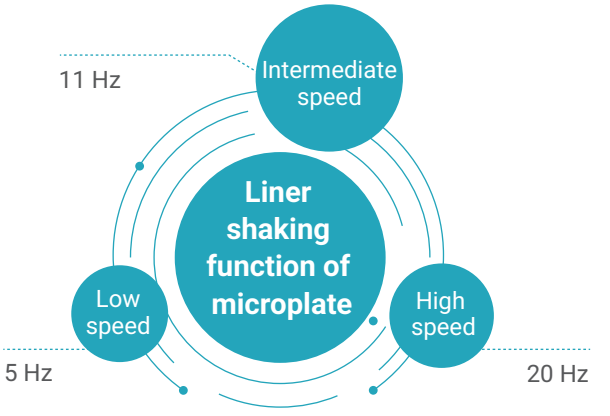
The optional system makes sure the high quality data and stabilized performance of FlexA-200.

- Double beam optional system has the reference optional channel system, which make the data more stabilization;
- After the instrument is started, the light source, grating, detector, position, etc. are automatically calibrated to ensure stable and reliable operation of the instrument;
- Long life xenon lamp which can be used for 10^9 times.

Choose Detection Wavelength Freely with Raster

FlexA-200 adopts the xenon flash lamp as light source, which chooses the wavelength range from 200-1000 nm with 1 nm step by grating monochromator for the full spectrum scanning.





Cuvette Mode (FlexA-200HT Model)

- Independent cuvette slot;
- Detection wavelength 200~1000 nm;
- With incubation function, RT+4 °C to 45 °C;
- Independent cuvette software can be directly used for endpoint method, kinetics, spectral scanning and standard curve establishment.

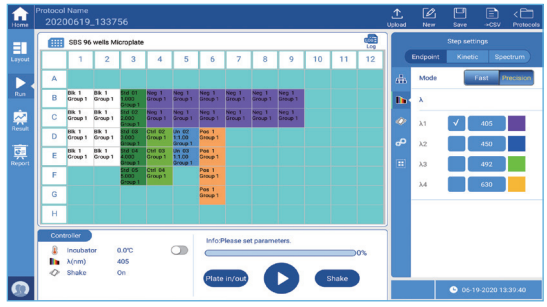
u-Nano Ultra-Micro Plate

- Quickly complete high-throughput quantification of micro nucleic acid and proteins without samples dilution;
- Independent lower computer software, can quickly read the sample concentration and purity report;
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed;
- During continuous testing, you only need to wipe off the last batch of samples with dust-free paper.

Instrument Interface Can Be Used Independently for Rapid Detection

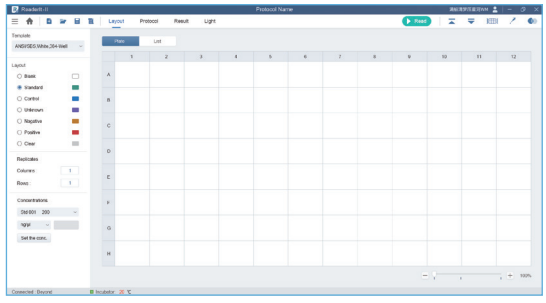
FlexA-200 built-in software is designed for independent use of the instrument. With a 10-inch high-resolution touch screen and a graphical user interface, the editing of programs and template presets are very simple.

In addition, support for USB data export is fast, convenient and easy to operate.



Through PC Software, Advanced Detection Mode and Powerful Data Analysis Can Be Set

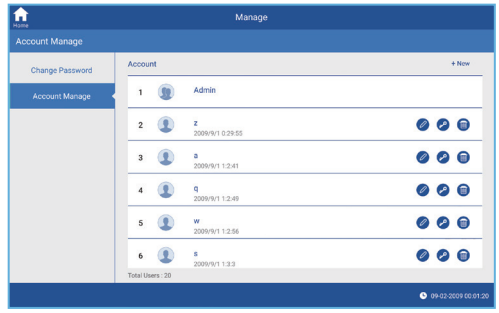
ReaderIt-II software designed with graphical operation interface has a simulation demonstration function. Data export is convenient and fast, and detailed result reports can be generated through built-in tools. The built-in software and ReaderIt-II of the FlexA-200 instrument are both Chinese/English interfaces. Graphical user interface is convenient for customers to use.



Powerful and Flexible Software

User Authority Classification

- Administrator can manage the accounts of different sub-users, which is convenient for the account management of experimenters;
- Set up multiple user accounts and passwords to facilitate the confidentiality of experiments for different users;
- Only personal experiment content is left in the sub-account, which is convenient for experiment recording;
- No password is required for the guest account, and you can quickly enter the experimental program.

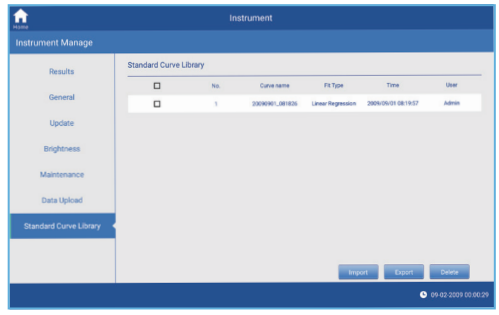


Powerful Data Analysis And Process

- Provides multiple data processing methods including blank subtraction, standard curve creation, qualitative analysis, quality control, kinetics, and spectral analysis to help you obtain the analysis results you want.

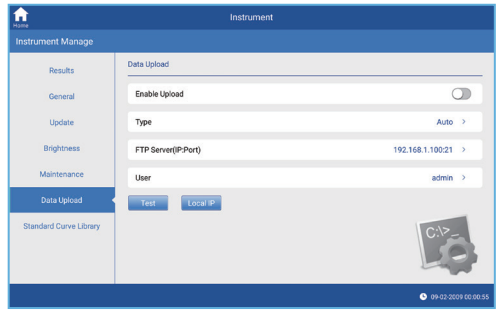
Standard Curve Library

- The instrument is equipped with a standard curve library. The standard curve established in the first experiment can be stored in the standard curve library, which is convenient for direct being used in the next experiment. No need to build a standard curve every time, more convenient and faster.



FTP (File Transfer Protocol)

- Upload instrument data directly to a computer with an FTP server, and users can view the data results at any time in the authorized folder.



Multiple Report Export Types

- The instrument comes with four data file export modes: Excel, TXT, CSV, and PDF.

Product Parameter

Model	FlexA-200/FlexA-200HT	FlexB-200 (Class II Medical Device)
Display	10 inch high-resolution capacitive touch screen	
Light source	Xenon flash lamp / number of flashes>10^9	
Wavelength range	200 - 1000 nm	
Wavelength accuracy	2 nm	
Wavelength repeatability	0.2 nm	
Optical system	Monochromator, 1 nm step	
Reading range	0~4.0 OD	
Bandwidth	<2.5 nm	
Detection System	2 silicon photodetectors, one for measurement, one for reference	
Linear @450 nm	R^2≥0.999, [0.0 - 3.0 Abs]	R≥0.999, [0.0 - 3.0 Abs]
Absorbance accuracy @450 nm	± (1.0% + 0.003 Abs), (0 ~2.0 Abs] ± 2.0%, (2.0 ~ 2.5 Abs]	±0.005 [0 - 0.2Abs] ±0.008 (0.2 - 0.5Abs] ±0.013 (0.5 - 1.0Abs] ±0.018 (1.0 -1.5Abs] ±0.023 (1.5 -2.0Ab] ±2.0% (2.0 - 2.5 Abs]
Absorbance precision @450 nm	CV<0.5 % or SD<0.003 accurate mode; CV<1.0% fast mode	CV < 0.5% accurate mode; CV < 1.0% fast mode
Measuring speed	96-well plate: fast mode <8 seconds, accurate mode <28 seconds (end point method)	
Shaking	Linear, 3 speeds adjustable	
Temperature range	RT+4 °C to 45 °C	
Temp. accuracy & uniformity	±0.5 °C @37 °C, ±0.5 °C @37 °C	±0.5 °C @ 37 °C, 1 °C @ 37 °C
User interface	Built-in software, independent use	
Analysis software	ReaderIt-II software	
Operation display	Touch screen input, Android system, 10-inch LCD display full board information, can be connected with keyboard and mouse	
Internal storage	16 G storage, can store more than 20,000 data files	
Port	1×USB B port, 2×USB A port, 1×network port	2×USB A port
Robotic arm compatible	Temporarily incompatible, customization	
Power supply	DC24 V, 6.67 A	DC24V, 6.25A
Dimension	300×500×260 mm	
Net weight	15.5 kg	

Ordering Information

Code	Product Description	Code	Product Description
AS-19010-00	FlexA-200 microplate reader	AS-19011-01	ReaderIt-II PC analysis software
AS-19020-00	FlexA-200HT microplate reader	AS-19011-02	u-Nano ultra-micro plate
AS-19030-00	FlexB-200 microplate reader	AS-19011-03	ABS optical performance validation board

AMR-100 / AMR-100T Microplate Reader

The AMR-100/AMR-100T is a high-quality light absorption microplate reader based on a filter, with a wavelength range of 340 nm~750 nm, suitable for scientific research and clinical applications.

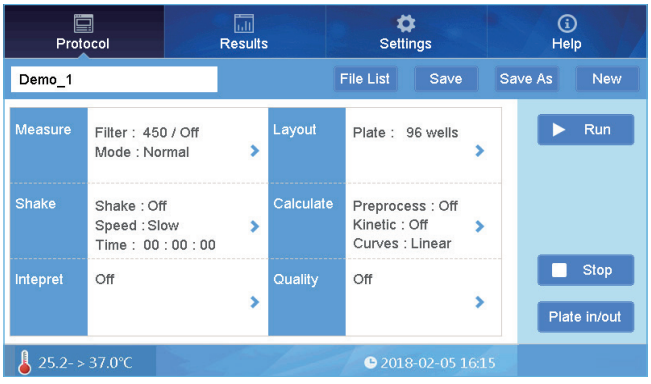
*The Medical Device Registration Certificate Number of AMR-100: Zhejiang Device Registration Approval No. 20182400109

*AMR-100T has additional incubation function, with temperature range is from RT+4 °C to 50 °C

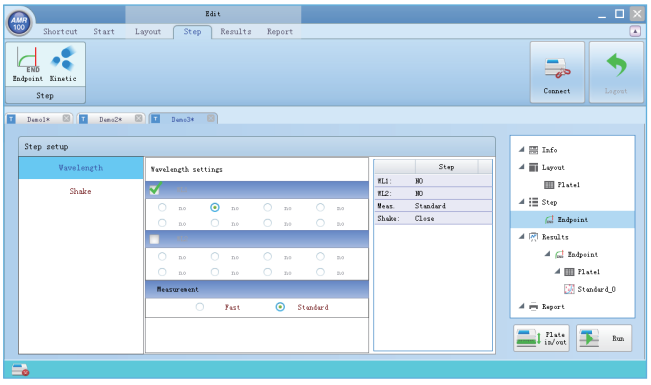
- Absorbance range: 0.0~4.000 Abs, meeting different measurement requirements;
- 8-position filter wheel, standard 4 filters, optional other filters;
- The built-in software can provide instrument control and data analysis, and can be directly connected to a U disk;
- The detection speed is fast, and the whole 96-well microplate detection can be completed within 6 seconds.

Powerful and Flexible Software

- High-resolution 7-inch color touch screen, easy to operate, no keyboard required, easy to use;
- Visual layout, convenient and practical;
- The microplate reader is equipped with the standard control and data analysis software ReaderIt-I, which is convenient and quick for data detection;
- Powerful data analysis function and excellent result report, which can be used as a single machine or connected with a computer, and the results are exported in real time;



AMR-100T Operation Interface



ReaderIt-I Software Interface

Product Parameter

Model	AMR-100	AMR-100T
Display	7 inch high resolution capacitive touch screen	
Light source	6 V, 10 W halogen lamp	
Wavelength range	340 nm~750 nm	
Optical filter	8-position filter wheel, standard 4 filters: 405 nm, 450 nm, 492 nm, 630 nm	
Absorbance range	0~4.0 Abs	
Resolution	0.001 Abs	
Linear range	R^2≥0.995 absorbance range 0~3.0 Abs	R^2≥0.995 [0,3 Abs]
Wavelength accuracy	≤ ±2 nm	
Absorbance repeatability	CV≤0.3 % [0,3 Abs); CV≤1 % [3,4 Abs)	
Absorbance stability	≤0.005 Abs [0,3 Abs) ≤2.0% [3,4 Abs)	≤±0.005 Abs [0,2 Abs) ≤0.3% [2,3 Abs) ≤2.0% [3,4 Abs)
Absorbance accuracy	≤±0.005 Abs [0,2 Abs) ≤±0.01 Abs [2,3 Abs) ≤±1.5% [3,4 Abs)	≤±0.005 Abs [0,2 Abs) ≤±1% [2,3 Abs) ≤±1.5% [3,4 Abs)
Sensitivity / detector	≥0.01 A / photodiode	
Measuring speed	6 s / 96-well plate, fast mode; single wavelength <15 s / 96-well, dual wavelength <28 s / 96-well (common mode)	
Incubation temperature range	--	RT+4 °C ~ 50 °C
Temperature accuracy	--	±0.5 °C @ 37 °C
Temperature uniformity	--	±0.5 °C @ 37 °C
User Interface	Built-in software, touch screen input, external mouse	
Internal storage	Can store 1000 measurement programs and measurement results	
Port	3×USB ports, connecting computer, printer and USB drive	
Power supply	AC100~240 V, 50~60 Hz, 2 A	
Dimension (W×D×H)	295×440×225 mm	
Net weight	10 kg	11 kg

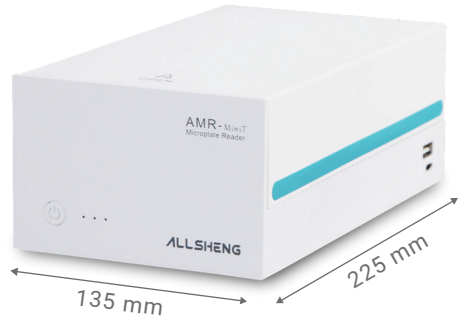
Ordering Information

Code	Product description	Code	Product description
AS-16050-00	AMR-100 microplate reader	AS-16051-17	Optical filter 510 nm
AS-16060-00	AMR-100T microplate reader	AS-16051-18	Optical filter 520 nm
AS-16051-01	Optical filter 340 nm	AS-16051-19	Optical filter 532 nm
AS-16051-02	Optical filter 380 nm	AS-16051-20	Optical filter 546 nm
AS-16051-03	Optical filter 405 nm	AS-16051-21	Optical filter 560 nm
AS-16051-04	Optical filter 415 nm	AS-16051-22	Optical filter 562 nm
AS-16051-05	Optical filter 450 nm	AS-16051-23	Optical filter 600 nm
AS-16051-06	Optical filter 492 nm	AS-16051-24	Optical filter 620 nm
AS-16051-07	Optical filter 540 nm	AS-16051-25	Optical filter 646 nm
AS-16051-08	Optical filter 570 nm	AS-16051-26	Optical filter 663 nm
AS-16051-09	Optical filter 578 nm	AS-16051-27	Optical filter 700 nm
AS-16051-10	Optical filter 590 nm	AS-16051-28	Optical filter 750 nm
AS-16051-11	Optical filter 595 nm	AS-16051-50	Halogen lamp
AS-16051-12	Optical filter 630 nm	AS-16051-51	Printer
AS-16051-13	Optical filter 650 nm	AS-16051-52	Printer paper
AS-16051-14	Optical filter 690 nm	AS-16051-53	ABS optical performance validation board
AS-16051-15	Optical filter 470 nm	AS-16051-54	ReaderIt-I analysis software
AS-16051-16	Optical filter 490 nm		

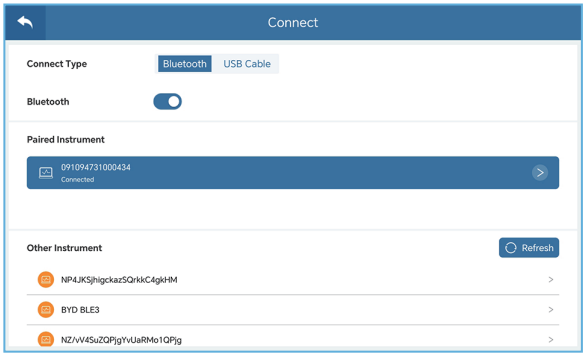
AMR-Mini / AMR-MiniT Microplate Reader

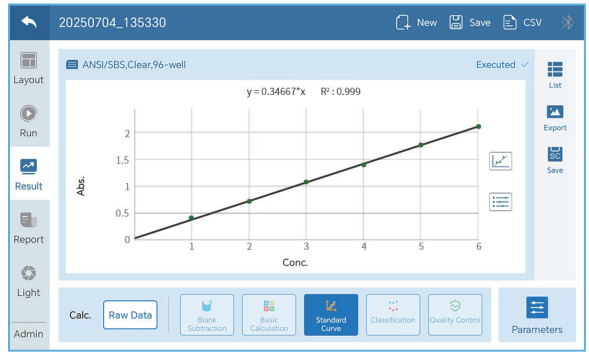
AMR-Mini series microplate reader is designed with compact shape and modern operating software, aiming to save space, facilitate operation and bring a new user experience.

*AMR-MiniT additional incubation function.



- **Multiple detection modes**: Can detect single wavelength, dual wavelength, kinetics, etc.
- **Long life LED light source**: Energy-saving, maintenance free and low power consumption.
- **Reliable data guarantee**: It has a reference optical path system to ensure stable and reliable detection data.
- **Independent removable light source and filter module**: 450 / 630 nm and 405 / 492 nm, or any wavelength can be customized.
- **Small space**: About the size of two microplates, which can be measured in the modular workbench, anaerobic chamber or incubator.



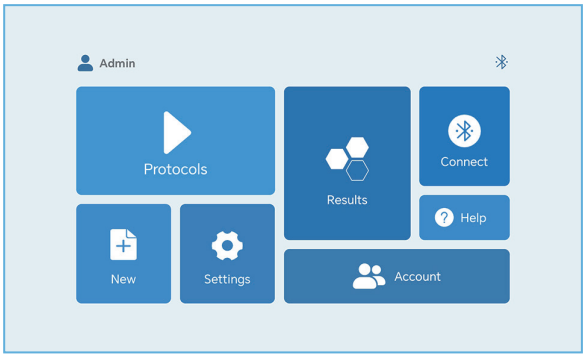


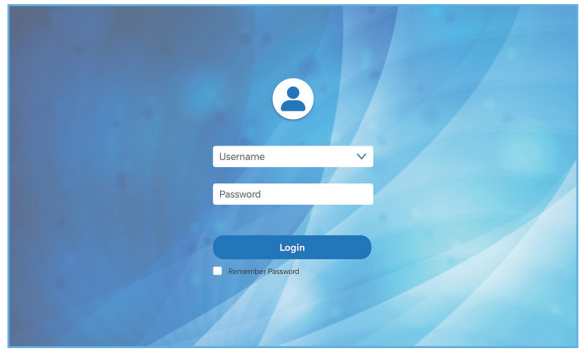
APP Control

Support Bluetooth wireless and USB wired connection, can be installed in multiple Android pad computers, simple and easy to use, flexible operation.

Multiple Data Analysis Algorithms

Including blank subtraction, standard curve, qualitative and quantitative analysis, quality control, kinetics analysis, etc.



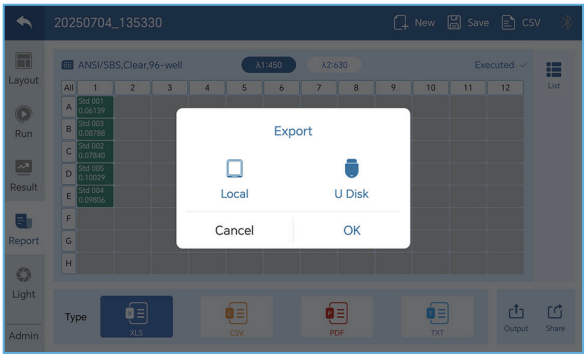


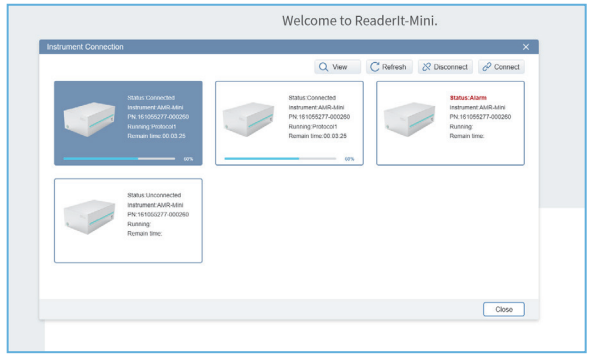
Intuitive Interface Display

Intuitive selection of function modes, easy to complete parameter settings.

Multi-Level User Management

Independent accounts and passwords to keep the results confidential.





High Freedom of Data Storage

The data can be exported via USB flash disk or stored directly in local folder.

ReaderIt-Mini Computer Analysis Software (Developing)

Can control multiple instruments at the same time to achieve central control management.

Product Parameter

Detection type	Endpoint, kinetic
Plate type	96-well
Light source	LED
Detector	PD×9
Wavelength accuracy	≤±2 nm
Wavelength range	400~750 nm
Filter	450 / 630 nm, 405 / 492 nm
Measure range	0-4 Abs
Resolution	0.001 Abs
Linear	$R^2 \geq 0.995$ @ [0.0 - 3.0 Abs]
Accuracy	≤±(0.5%+0.01 Abs) @[0.0-2.0 Abs) ≤±(1.0%+0.01 Abs) @ [2.0-3.0 Abs)
Repeatability	[0,3Abs) CV≤0.5%
Stability	≤0.005Abs [0.0,2.0Abs); ≤0.3% [2.0,3.0Abs)
Measure speed	Single wavelength <15 s/96-well, dual wavelength <28 s/96-well
Software	APP
Software interface	Chinese / English
Transmission	Bluetooth, USB cable
Instrument port	1×Type-C interface, 1×USB A-port, 1×USB B-port
Power input	Type-C interface 12V 3A

Dimension (W×D×H)	135×225×89 mm (AMR-Mini); 135×245×91 mm (AMR-MiniT)
Weight	2kg (AMR-Mini); 2.5kg (AMR-MiniT)

AMR-MiniT

Incubation temperature	RT+4 °C~50 °C

Ordering Information

Code	Product description	Code	Product description
AS-16070-00	AMR-Mini microplate reader	AS-16071-08	Optical filter 570 nm
AS-16080-00	AMR-MiniT microplate reader	AS-16071-09	Optical filter 590 nm
AS-16051-53	ABS optical performance validation board	AS-16071-10	Optical filter 595 nm
AS-16071-01	Optical filter 450 nm	AS-16071-11	Optical filter 600 nm
AS-16071-02	Optical filter 630 nm	AS-16071-12	Optical filter 605 nm
AS-16071-03	Optical filter 405 nm	AS-16071-13	Optical filter 620 nm
AS-16071-04	Optical filter 492 nm	AS-16071-14	Optical filter 650 nm
AS-16071-05	Optical filter 490 nm	AS-16071-15	Optical filter 663 nm
AS-16071-06	Optical filter 540 nm	AS-16071-16	Optical filter 690 nm
AS-16071-07	Optical filter 550 nm	AS-16071-17	Optical filter 750 nm

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