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.

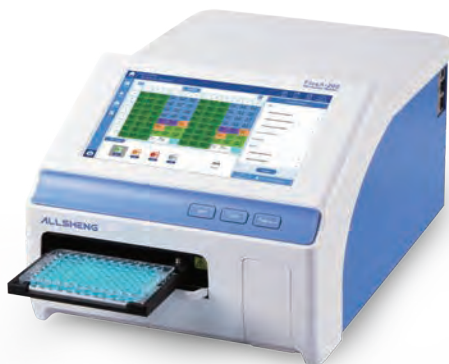## Multi-Mode Microplate Reader Series Products

Feyond-A300 / A400 / A500

Feyond-F100 / L100
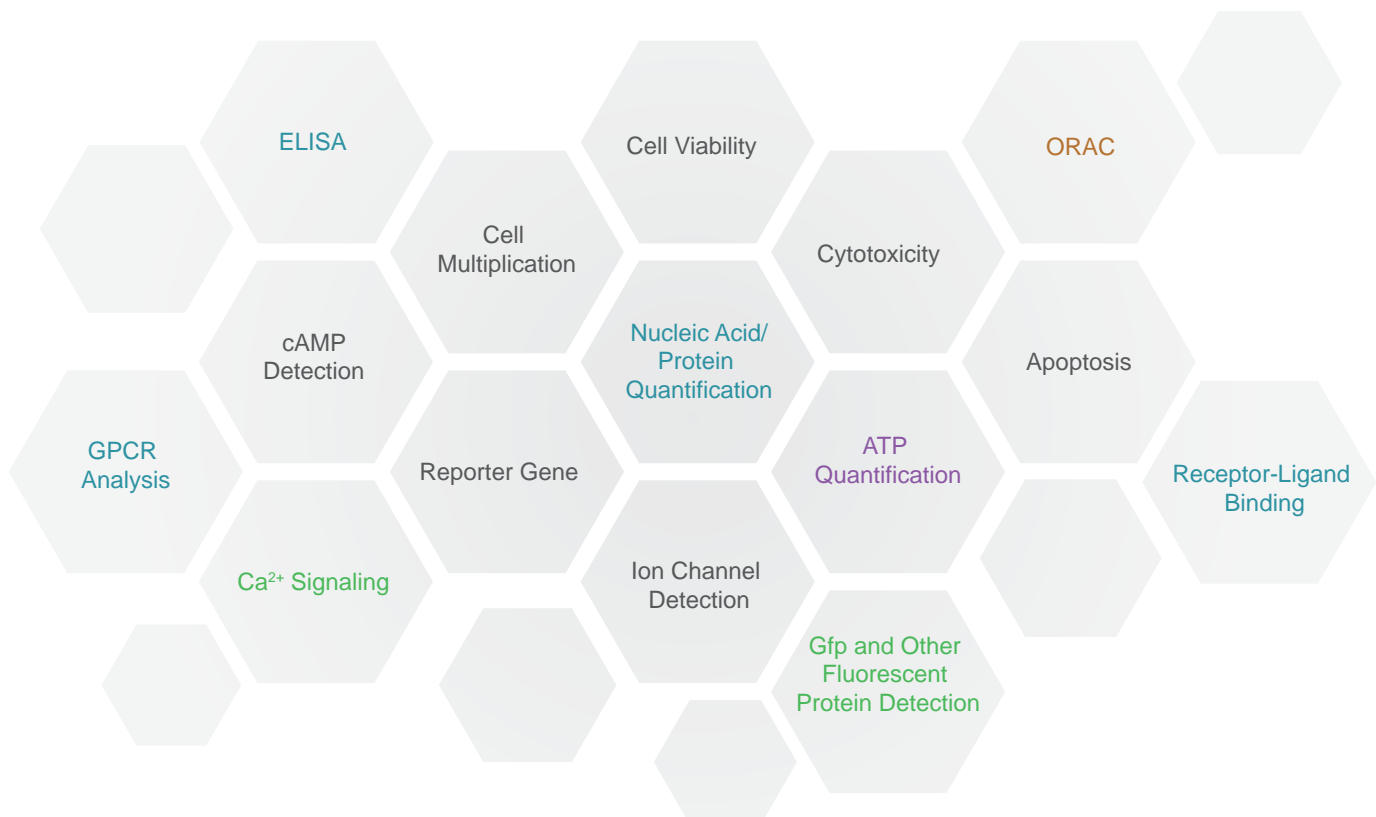
Microplate Reader Series Products

FlexA-200 / 200HT

AMR-100 / 100T

JoJo Life Science

Function Configuration Overview

	Monochromater Type				Filter Type		
	FlexA-200/200HT	Feyond-A300	Feyond-A400	Feyond-A500	AMR-100/100T	Feyond-F100	Feyond-L100
Absorbance-monochromater	●	●	●	●			
Absorbance-filter					●		
Fluorescence-filter		●	●	●		●	
Time-resolved fluorescence			●	●			
Fluorescence polarization-filter				●			
Luminescence		●	●	●			●
u-Nano Plate	●	●	●	●			
Injector (optional)		○	○	○		○	○
Page number	P16	P04			P20	P06	P08

Application Examples

ELISA

Cell Viability

ORAC

Cell Multiplication

Cytotoxicity

cAMP Detection

Nucleic Acid/ Protein Quantification

Apoptosis

GPCR Analysis

Reporter Gene

ATP Quantification

Receptor-Ligand Binding

Ca²⁺ Signaling

Ion Channel Detection

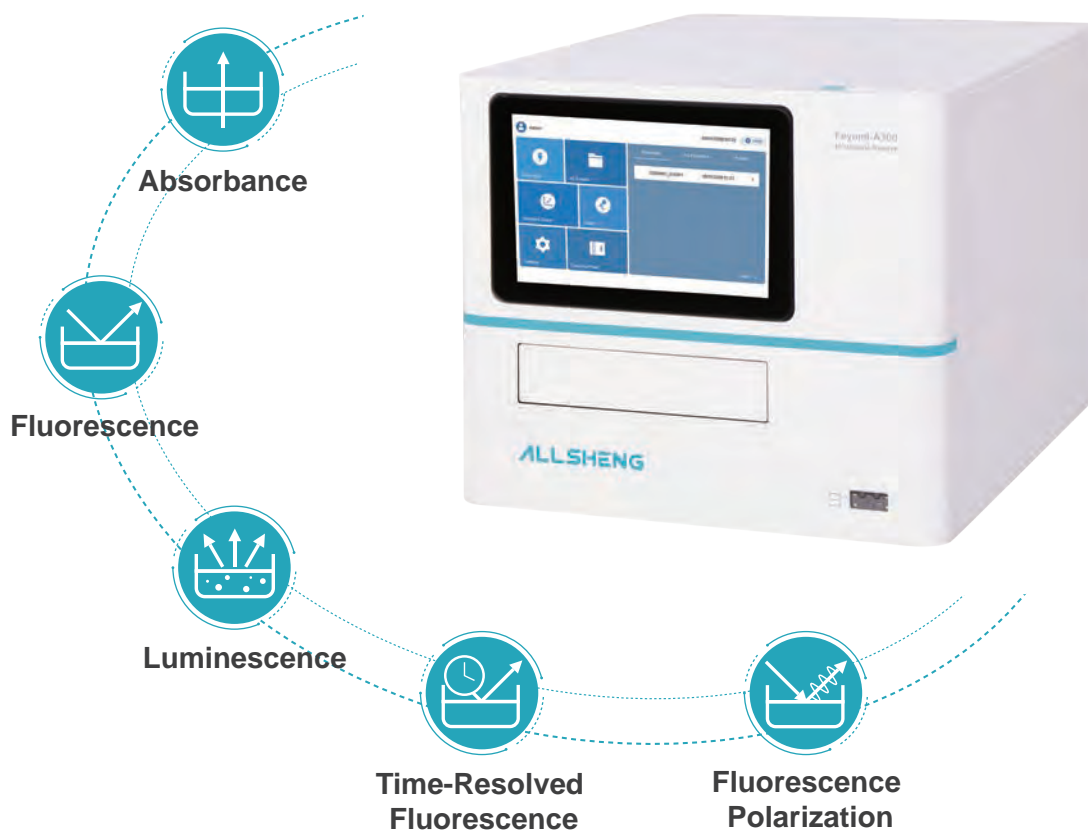Gfp and Other Fluorescent Protein Detection

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-F100	Feyond-L100
Plate	6-384				
Absorbance	✓	✓	✓	--	--
Fluorescence	✓	✓	✓	✓	--
Luminescence	✓	✓	✓	--	✓
Time-resolved fluorescence	--	✓	✓	--	--
Fluorescence polarization	--	--	✓	--	--
Xenon lamp	✓	✓	✓	✓	--
Wavelength range	Absorbance: 200-1000 nm			Fluorescence: EX: 200-1000 nm EM: 270-850 nm	Luminescence: 200-850 nm
	Fluorescence: EX: 200-1000 nm; EM: 270-850 nm				
	Luminescence: 200-850 nm				
	--	--	Fluorescence polarization: 300 - 850 nm		
Wavelength selection	Absorbance: monochromator / fluorescence: filter			Filter	Filter
Incubation temperature	RT+4 °C~45 °C				
Screen size	10 inch				
System	Android system				
Analysis software	Reader It-II				
Accessories	Microplate, injector			Injector	

Feyond-A300/A400/A500 Multi-Mode Microplate Reader

Absorbance

Fluorescence

Luminescence

Time-Resolved Fluorescence

Fluorescence Polarization

Feyond 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
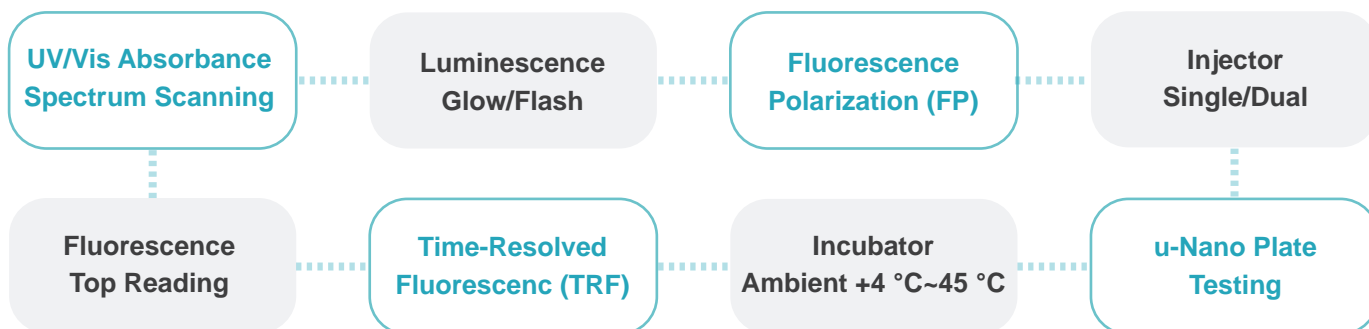
modular design provides the convenience of filter replacement to shorten the operation time.

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.

UV/Vis Absorbance Spectrum Scanning	Luminescence Glow/Flash	Fluorescence Polarization (FP)	Injector Single/Dual

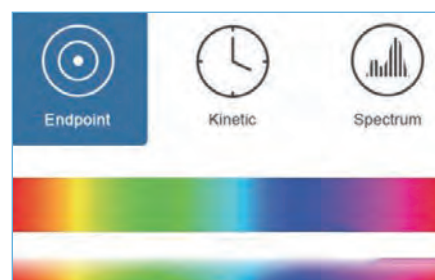| Fluorescence Top Reading	Time-Resolved Fluorescenc (TRF)	Incubator Ambient +4 °C~45 °C	u-Nano Plate Testing

◉ 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.

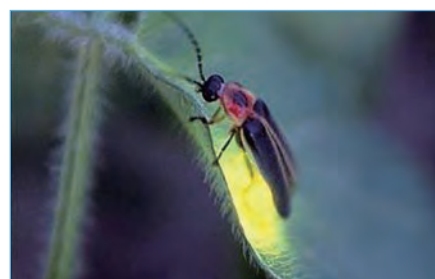| Long life xenon lamp which can be used for 10^9	Fast reading mode only need time 15 s for 96-well whole plate	Can be used for spectral scanning, endpoint and kinetic detection

◉ 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.
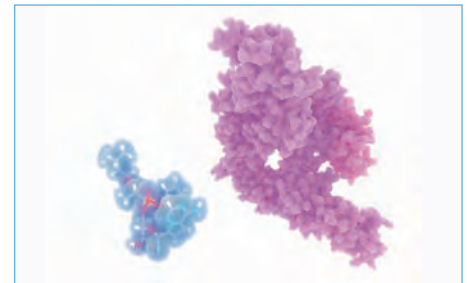
◉ Time-Resolved Fluorescence (TRF)

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.

Time

◉ Fluorescence Polarization (FP)

The optimized optical path design of Feyond-A500 combined with the performance of the fast switching polarizer can effectively reduce the detection deviation. The 10-inch lower computer touch screen can improve the flexibility of experimental parameter setting. This function is often used to detect the interaction between small molecules and macromolecules, such as the determination of drugs and hormones, tyrosine kinase detection, receptor/ligand research, protein/polypeptide interactions, DNA/protein interactions, etc.

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.
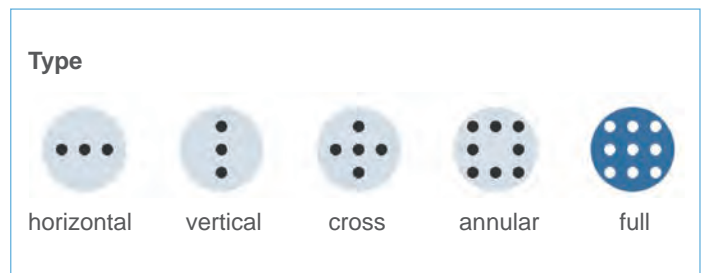
High Performance Filter

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).

Hole Scanning Function

Using flexible orbital motion and precise detection points to achieve a scanning detection method of more than 700 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

| horizontal | vertical | cross | annular | full |

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.
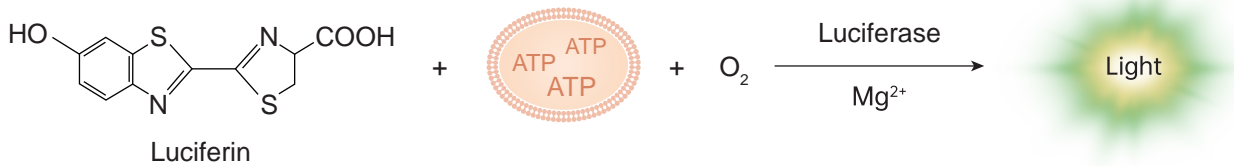
◉ Ultra-Low Well-to-Well Interference

The unique optical path design effectively reduces the signal cross-interference between holes, and the cross-talk is less than 0.005%.
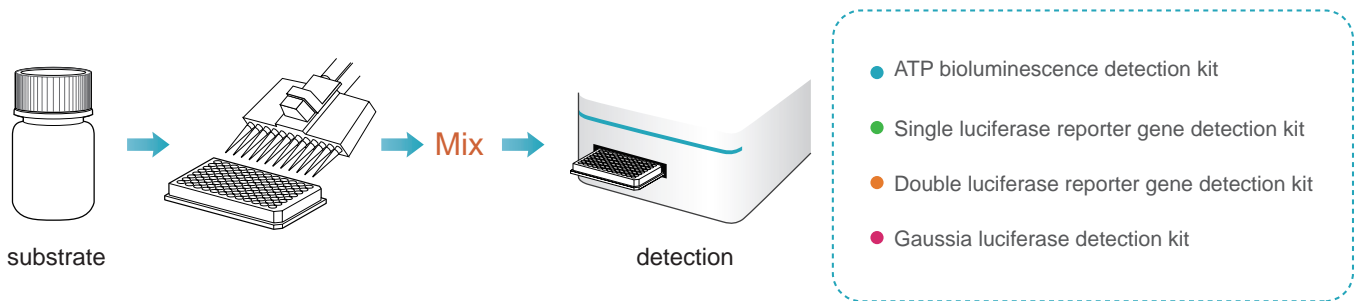
◉ Quick Flash Test

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.

$$\text{Luciferin} + \text{ATP} + O_2 \xrightarrow[\text{Mg}^{2+}]{\text{Luciferase}} \text{Light}$$

Luciferin

◉ 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.

substrate → Mix → detection

- ● 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, 460 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.

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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
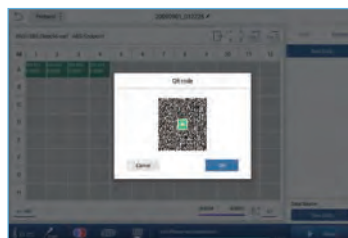

Powerful Data Analysis and Process

- 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 identification.

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.

Product Parameter

⦿ Technical Parameter

Model		Feyond-A300	Feyond-A400	Feyond-A500
Absorbance	Light source	Xenon lamp		
	Detector	PD		
	Wavelength accuracy	2 nm		
	Wavelength repeatability (SD)	0.2 nm		
	Half width (FWHM)	<2.5 nm		
	Wavelength range	200-1000 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	CV < 1.0 % or SD < 0.003 fast (0.0-3.0Abs] CV < 0.5 % or SD < 0.003 accurate (0.0-3.0Abs]		
	Stray light	0.1% @220 nm		
	Linear @450 nm	$R^2 \geq 0.999$ @[0.0 - 3.0 Abs]		
	Reading time	96-well plate: fast <15 s		
Luminescence	Detector	PMT		
	Detection limit	15 amol/hole; 5 amol/hole (photon PMT)		
	Linear dynamic range	6 logs		
	Crosstalk	≤ 0.005 %		
	Wavelength range	200-850 nm		
Fluorescence	Reading mode	Top reading		
	Excitation light source	Xenon lamp		
	Detector	PMT		
	Wavelength range	EX: 200-1000 nm; EM: 270-850 nm		
	Filter EX/EM	3 groups: EX470/EM525, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)		
	Detection limit	1 pM		
	Linear dynamic range	6 logs		
TRF	Wavelength range	--	EX: 200-1000 nm; EM: 270-850 nm	
	Detection limit	--	0.05 pM	
FP	Wavelength range	--	--	λ1-λ2
	Detection limit	--	--	5 mP

Model	Feyond-L100
Luminescence Detector	PMT
Detection limit	5 amol/well
Linear dynamic range	6 logs
Crosstalk	≤ 0.005 %
Wavelength range	200-850 nm
Filter	460 nm, 560 nm

Model	Feyond-F100
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: EX470/EM525, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)
Detection limit	2.5 pM
Linear dynamic range	6 logs

◉ Basic Parameter

Model		Feyond-A300	Feyond-A400	Feyond-A500	Feyond-F100	Feyond-L100
Support	Plate	6-384 well				
	Accessories	Microplate, injector			Injector	
Shaking & Incubation	Shaking mode	Linear, annular, double annular				
	Incubation temperature	RT+4 °C ~ 45 °C				
	Temperature uniformity	±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				
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				
	Size (W×D×H)	420×550×386 mm			440×420×315 mm	
	Weight	33 kg			25 kg	

Accessory Parameter

Microplate	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	50 mL
Software	Analysis software	ReaderIt-II software

Ordering Information

Product Description
Feyond-A300 microplate reader (multi-mode)
Feyond-A400 microplate reader (multi-mode)
Feyond-A500 microplate reader (multi-mode)
Feyond-L100 luminescence microplate reader
Feyond-F100 fluorescence microplate reader
ReaderIt-II PC analysis software
u-Nano ultra-micro plate
ABS optical performance validation board
MSS-2 automatic injector

Microplate Reader

Absorption-based detection modes have been the preferred mode of ELISA and are widely used in ELISA, protein analysis, nucleic acid quantification, and enzyme kinetics experiments.

Allsheng microplate reader series has fast plate reading speed, powerful functions and excellent performance, suitable for various medical laboratories, biological laboratories or central laboratories, etc.

Microplate Reader Selection Guide

Model	AMR-100	AMR-100T	FlexA-200	FlexA-200HT
Detection mode	Absorbance			
Plate	96		96/384	
Light source	Halogen lamp		Xenon lamp	
Wavelength range	340-750 nm		200-1000 nm	
Wavelength selection	Filter		Monochromator	
Incubation temperature	--	RT+4 °C~50 °C	RT+4 °C~45 °C	RT+4 °C~45 °C
Screen size	7-inch		10-inch	
System	Single-chip microcomputer		Android	
Cuvette	--	--	--	✓
Analysis software	Reader It-I		Reader It-II	
Accessories	--		Microplate	

FlexA-200/FlexA-200HT 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.

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.
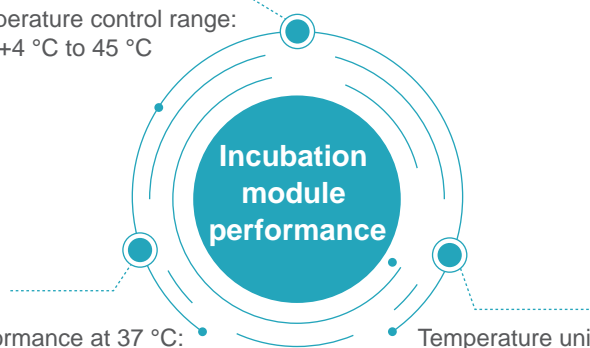
Choose Detection Wavelength Freely with Raster

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.

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.

Incubation module performance

Temperature control range: RT. +4 °C to 45 °C

Performance at 37 °C: Average temperature difference between wells: ±0.5 °C

Temperature uniformity of well plate: <1.0 °C (96-well plate without cover)

Liner shaking function of microplate

Intermediate speed — 11 Hz

Low speed — 5 Hz

High speed — 20 Hz

⦿ 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.

⦿ FlexA-200 Instrument Interface Can Be Used Independently for Rapid Detection
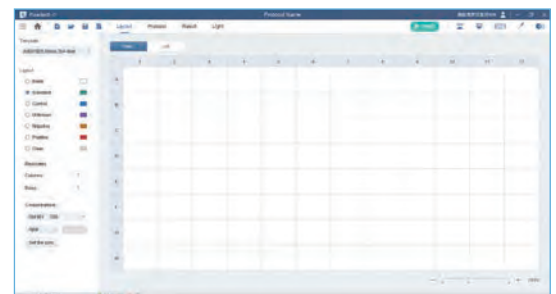
FlexA-200 built-in software is designed for independent use of the instrument. With a 10-inch high-resolution touch screen and a graphical user interface, the editing of programs and template presets are very simple.

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
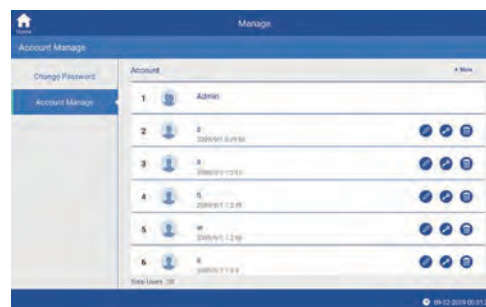
ReaderIt-ll software designed with graphical operation interface has a simulation demonstration function. Data export is convenient and fast, and detailed result reports can be generated through built-in tools. The built-in software and ReaderIt-ll of the FlexA-200 instrument are both Chinese/English interfaces. GUI 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.
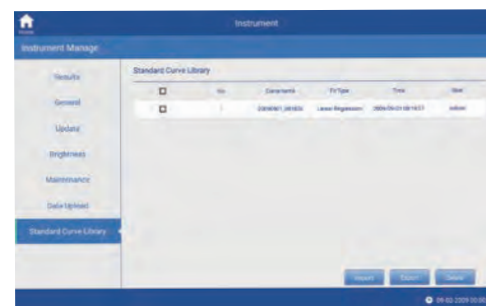
◉ Powerful Data Analysis And Process

- 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.
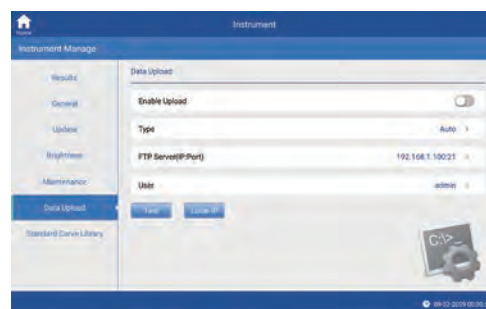
◉ Standard Curve Library

- 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.

XLS CSV PDF TXT

Product Parameter

Model	FlexA-200/FlexA-200HT Microplate Reader
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	$R^2 \geq 0.999$, [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]
Absorbance repeatability @450 nm	CV<0.5 % or SD<0.003 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
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 type B USB interface, 2 type A USB interfaces, 1 network port
Robotic arm compatible	Temporarily incompatible
Power supply	DC24 V 6.67 A
Dimension	300×500×260 mm
Net weight	15.5 kg

Ordering Information

Product Description	Product Description
FlexA-200 microplate reader	u-Nano ultra-micro plate
FlexA-200HT microplate reader	ABS optical performance validation board
ReaderIt-II analysis software	

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. 7-inch touch screen color LCD display, no keyboard required, easy to use.

* AMR-100T medical record certificate No.: Zhejiang machinery registration permission 20182400109

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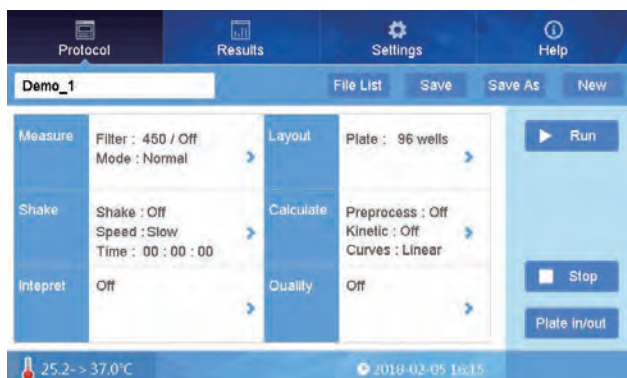
⊙ Feature

- High-resolution 7-inch color touch screen, easy to operate, no keyboard required, easy to use;

- Multiple software configuration, which can be used as a single machine or connected with a computer, and the results are exported in real time;

- 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.
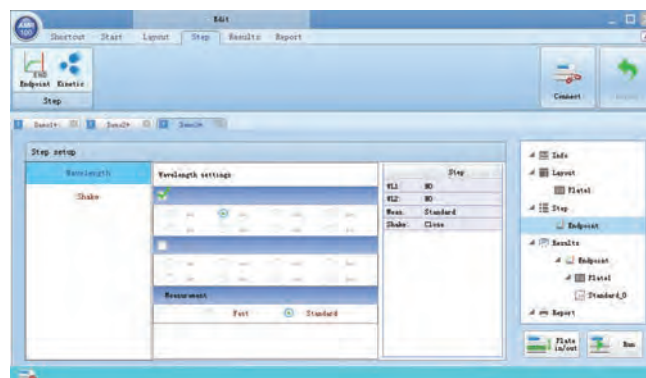
⊙ AMR-100 Unique Advantages of Microplate Reader

- High-resolution 7-inch touch screen, simple and intuitive operation, no keyboard required;

- 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, not only can run the analysis independently, but also run the analysis on the computer.

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

Product Description	Product Description
AMR-100 microplate reader	Optical filter 510 nm
AMR-100T microplate reader	Optical filter 520 nm
Optical filter 340 nm	Optical filter 532 nm
Optical filter 380 nm	Optical filter 546 nm
Optical filter 405 nm	Optical filter 560 nm
Optical filter 415 nm	Optical filter 562 nm

Product Description	Product Description
Optical filter 450 nm	Optical filter 600 nm
Optical filter 492 nm	Optical filter 620 nm
Optical filter 540 nm	Optical filter 646 nm
Optical filter 570 nm	Optical filter 663 nm
Optical filter 578 nm	Optical filter 700 nm
Optical filter 590 nm	Optical filter 750 nm
Optical filter 595 nm	Halogen lamp
Optical filter 630 nm	Printer
Optical filter 650 nm	Printer paper
Optical filter 690 nm	ABS optical performance validation board
Optical filter 470 nm	ReaderIt-I analysis software
Optical filter 490 nm	

APW-200 Microplate Washer

Microplate washer is an automatic plate washer for washing 96-well microplate. compact construction, efficient washing and durable, it is suitable for the washing of flat bottom, U-shaped bottom, v-shaped bottom, c-shaped bottom of various specifications. It has various special functions selected and matched by other board washer. The programmed design is especially suitable for laboratory with heavy workload of multi-application of microplate. It can also be used to soak and shock.

⊙ Feature

- Low residual liquid, each well ≤ 1 µL;
- 4.3 inch color LCD display, easy to operate;
- Microplate can be soaked and shocked simultaneously;
- Strainer in the pipeline and automatic washing functions avoid the liquid blocking the pipeline;
- Pipeline flushing and distilled water washing functions can be set, flushing time and number of spacers can be adjusted;
- With pause function, you can continue to complete the rest of washing procedures;
- Washing bottle has uniform volume calibration line, alarm function to avoid the washing liquid used up or waste liquid from overflow;
- 100 programs can be save.

⊙ Easy Operation

- The APW-200 microplate washer has 4.3 inch LCD display with friendly interface, U-disk can be to transfer the datas between the PC and the washer or between two washers, it can also be used to upgrade the software. The washing head can be replaced easily for different kinds of microplates.

⊙ Safety and Reliable Feature

- The APW-200 microplate washer is equipped with liquid position sensor to avoid the washing liquid used up or waste liquid from overflow, minimize the risk and avoid the liquid being sucked into the pump to break the equipment. Besides it has shaking function, which can improve the washing efficiency.

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Product Parameter

Model	APW-200 Microplate Washer
Residual liquid	≤1 µL
Washing heads	1×8 or 1×12 heads
Plate types	Flat, U, V, C bottom
Washing method	Single-point, two-point and multi-point
Washing volume	50-2000 µL, increase by 50 µL
Washing times	1~99 times
Washing channels	3
Bottles	3 pcs 2.5 L washing bottle, 1 pcs 2.5 L washing bottle
Dispense accuracy	≤2 % @300 µL
Liquid injection accuracy	CV≤1.5 % @300 µL
Soaking and shaking time	99'00"
Date connection	USB
Weight	12 kg
Power supply	AC100-240 V; 50/60 Hz

Ordering Information

Product Description
APW-200 microplate washer AC100-240 V, 50/60 Hz
8 needles washing head
12 needles washing head
Washing liquid bottle
Waste liquid bottle