

ALLSHENG



Microplate Reader Feyond-A Series

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
ABS	✓	✓	✓
FL	✓	✓	✓
LUM	✓	✓	✓
TRF	--	✓	✓
FP	--	--	✓
Plate	6 - 384		
Light source	Xenon lamp		
Wavelength range	ABS: 200 - 1000 nm		
	FL: EX: 200-1000 nm; EM: 270-850 nm		
	LUM: 200-850 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-Nano16, u-Nano96, injector		
Analysis software	Reader It-II		

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.

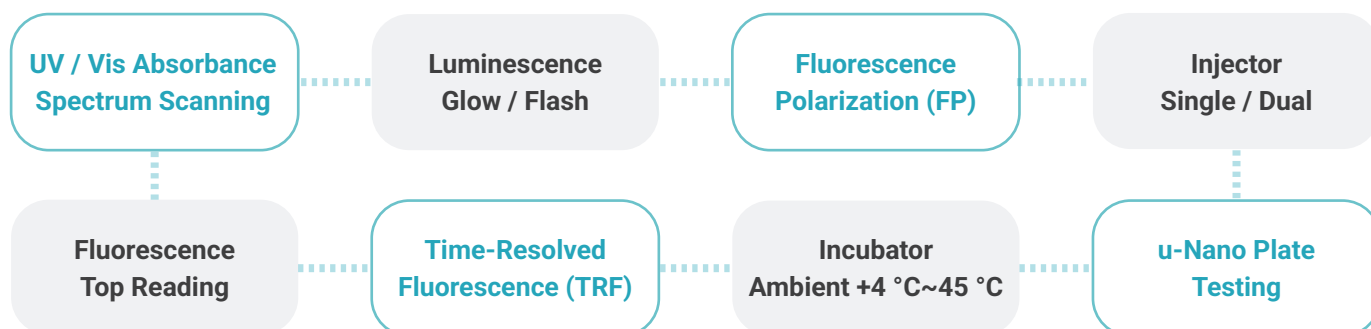
The detachable modular fluorescence detection filter can identify the filter information only by scanning the code. The modular design provides the convenience of filter replacement to shorten the operation time.

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



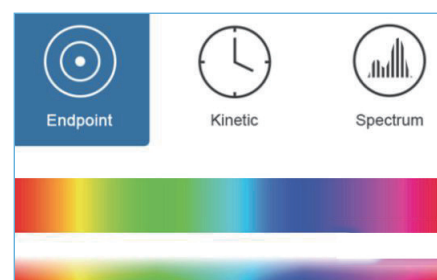
● UV / Vis Absorbance

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 can 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 10⁹

Fast reading mode only need time 15 s for 96-well whole plate

Can be used for spectral scanning, endpoint and kinetic detection



● Fluorescence

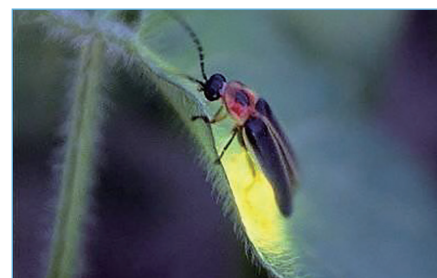
Instrument is equipped with filter-based fluorescence optics and dichroic mirrors for screening applications such as fluorescence polarization, and TR-FRET. Standard applications such as fluorescence-based DNA / RNA quantification assays are not only supported in microplates, but also in low volume u-Nano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

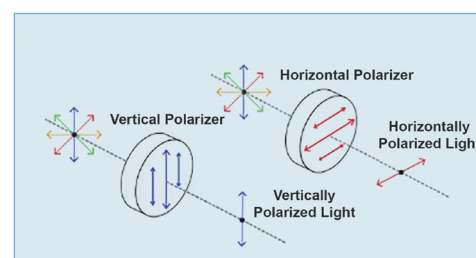
Time-resolved fluorescence is based on lanthanide elements as dyes. When excited, the emission time is much longer than that of ordinary fluorescein. After the excitation light is turned off, the emitted light can still be continuously expressed and released, thereby eliminating the interference of excitation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

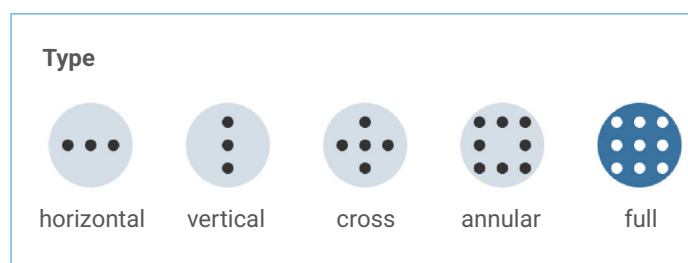


There are three types of shaking modes: linear, orbital and double orbital, and a variety of shaking speeds (rpm) can be freely selected, which is more conducive to the realization of kinetic background vibration of different types of samples.



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.

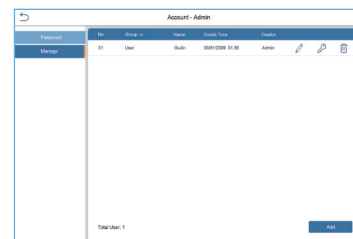
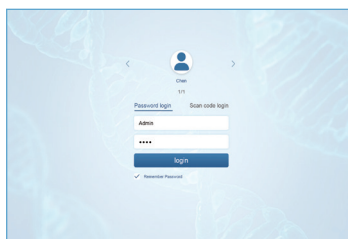


Easy-to-Use and Flexible Software

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.

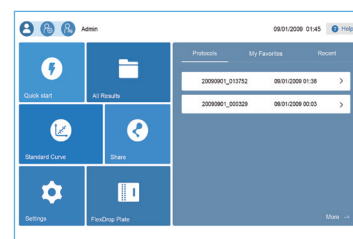
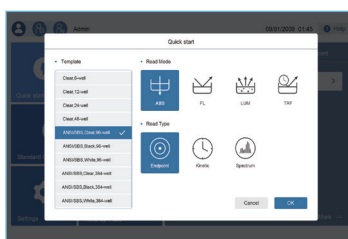
User Authority Classification

- 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



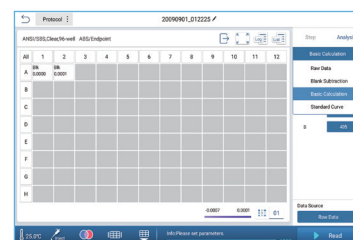
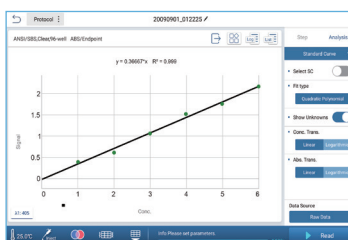
Intuitive Interface Display

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



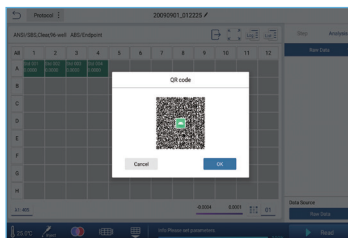
Powerful Data Analysis and Process

- 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



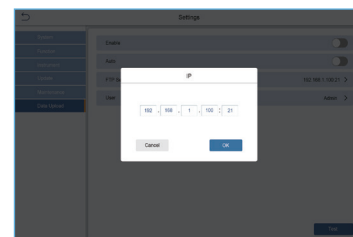
Liberalized User Communication

- 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



Technical Parameter

		Feyond-A300 / A400 / A500
ABS	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
	Measure range	0 - 4 OD
	Resolution	0.0001 OD
	Accuracy @450 nm	96-precision mode: $\pm(1.0\%+0.003 \text{ Abs}) @ (0.0-2.0 \text{ Abs})$ $\pm 2.0\% @ (2.0-3.0 \text{ Abs})$
	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	$R^2 \geq 0.999 @ [0.0 - 3.0 \text{ Abs}]$
	Reading time	96-well plate: fast <15 s (A1 to H1)
FL	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: EX485/EM530, EX523/EM564, EX624/EM692 (other wavelengths can be replaced)
	Linear dynamic range	6 logs
	Detection limit	1 pM (optimization condition)
LUM	Detector	PMT
	Detection limit	$\leq 15 \text{ amol/well}$
	Linear dynamic range	6 logs
	Crosstalk	$\leq 0.005\%$
	Wavelength range	200-850 nm
	Filter	-
TRF (A400/ A500)	Filter EX/EM	1 group: EX365/EM612
	Detection limit	0.02pM (optimization condition)
FP (A500)	Filter EX/EM	1 group: EX485/EM530
	Detection limit	$sd \leq 5 \text{ mP} @ 1 \text{ nm fluorescein sodium}$

Basic Parameter

		Feyond-A300 / A400 / A500
Read type		Endpoint, kinetic, spectrum scanning, and well scanning
Support Shaking & Incubation	Plate	6-384 well
	Accessories	u-Nano16, u-Nano96, injector
	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	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 A ports, 1 USB 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)	420×550×386 mm
	Weight	33 kg

Accessory Parameter

u-Nano	Sample number	u-Nano16: 1~16	u-Nano96: 1~96
	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	ReaderIt-II 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-19091-01	Lum-check standardization light microplate
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-19011-01	ReaderIt-II PC analysis software
AS-19011-02	u-Nano16 ultra-micro plate
AS-19011-03	ABS optical performance validation board
AS-19011-04	MSS-2 automatic injector
AS-19011-05	u-Nano96 ultra-micro plate

HANGZHOU ALLSHENG INSTRUMENTS CO., LTD.

Building 9 No.7 of Zhuantang Science and Technology Economic Zone,
Xihu District, Hangzhou City, 310024 Zhejiang, P.R. China

Tel: +86-571-88859758

Fax: +86-571-87205673

✉ info@allsheng.com

🌐 www.allsheng.com

Version Date: 2025.11

