Design concept

Precision Series——Your right choice!

With more than 12 years professional spectrophotometer manufacturing experience and more than 50000 sets UV global.
Precision Series main charactors. Easy to use, high accuracy, reliable and convient main charactors.
You deserve it!

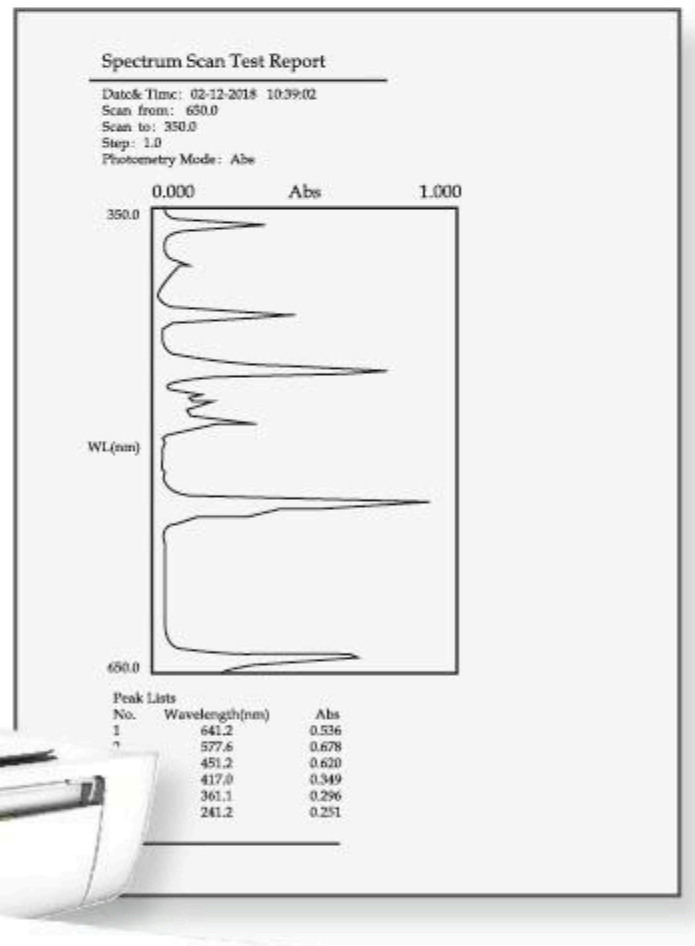
Precision Series:
UV / Vis Spectrophotometer : P1 / P2 / P3 / P4
Visible Spectrophotometer : PV1 / PV2 / PV3 / PV4

Brand Introduction

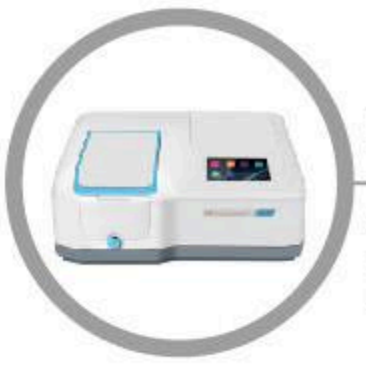
As a high-tech enterprise,
MAPADA focus on designing and manufacturing of high quality
UV / VIS Spectrophotometer.

We sell to domestic customers and also export,
60% products were exported to EU,
United States,Japan, Russia,
MAPADA are the main global supplier for
UV visible spectrophotometer.

50000+ instruments running smoothly,
is the guarantee of excellent quality.



Product Character



Fashion Design

- Simple;
- elegant;
- Aluminum Base.

Lamp Room

- Change lamp easy.

Anticorrosive holder

- Easy;
- Accurate;
- Anticorrosive.

USB Interface

- USB A:Printer;
- USB B:Save data.

Leaky Hole

- Protect instrument.

Color Screen

- Friendly interface;
- Build-in Method.

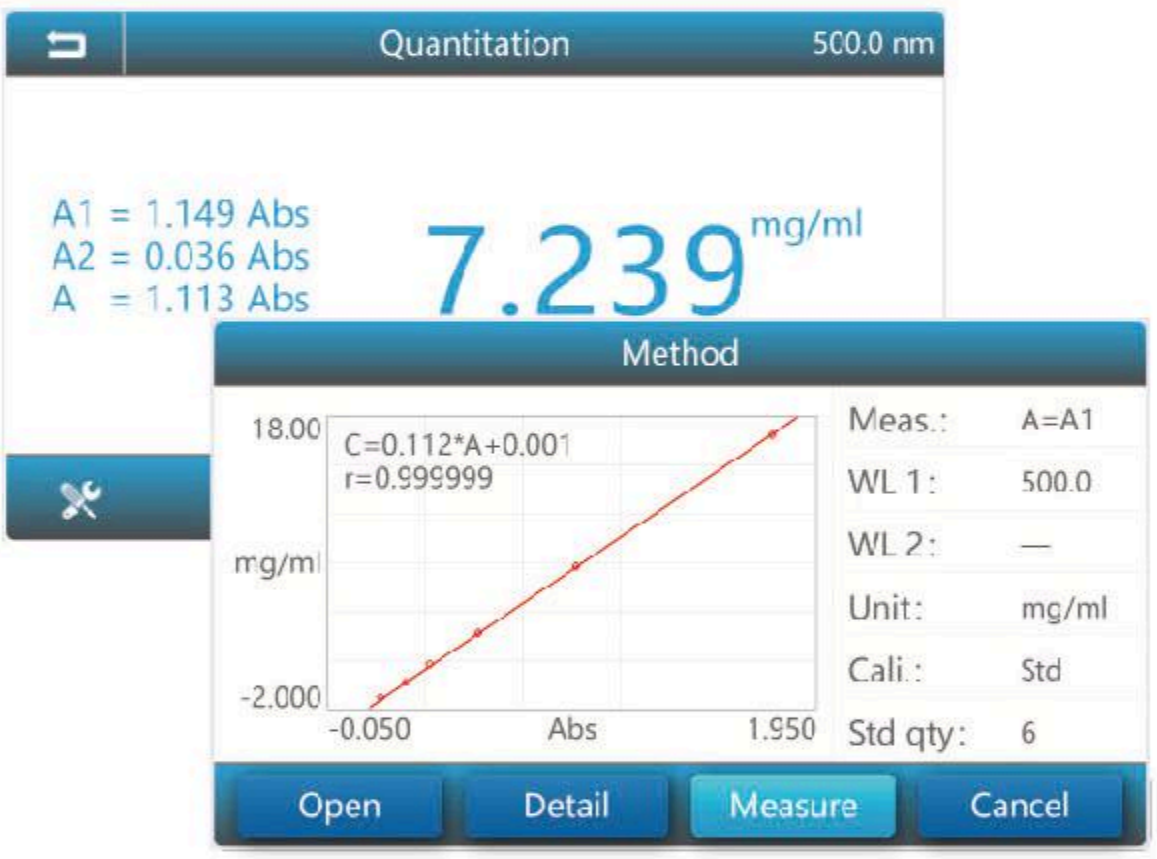
1 . Using the 1200 l / mm holographic grating with low stray light, the optimized optical path design ensures the high accuracy of the instrument;
2 . The new wavelength driving mechanism has greatly improved the wavelength accuracy and repeatability, and effectively reduced thenoisy;
3 . All aluminum die casting base and all moulded moulded shell, make the instrument more sturdy and durable;
4 . High resolution TFT color LCD touch screen has excellent display effect and simple operation;
5 . Self calibration system while switching on and preheating countdown;
6 . Support USB memory to upgrade firmware directly;
7 . It can connect computers through USB, control instrument by software and can enrich and expand applications by software;
8 . It also supports USB universal printer and serial micro printer based on PCL3 GUI protocol;
9 . Wide sample room, suitable for 5~100 mm sample holder and other acce-ssories;
10. Added Spectrum Scanning function, it' s the first time in the same level instrument;
11. Automatic move wavelength to set position, automatic zero correction;
12. It can connect to the printer and output the measurement results directly.

Product Features

Photometry Test

· A / T one key conversion;

· Results can be recorded, edited, deleted, saved, and printed.



Quantitation Test

· Single and dual wavelength method (dual wavelength difference, dual wavelength ratio) to measure samples;

· 3 metheds to establish standard curve (input equation coefficient, measure 2 ~ 10 standard samples or input standard sample absorbance and concentration);

· 3 kinds of fitting methods (linear zero, linear, two order);

· Standard curve can be saved and invoked;

· Built-in19 concentration units and custom input;

· The measurement results can be recorded, edited, deleted, saved, and printed.

Spectrum Scanning

· The scanning speed is optional (low, medium, high);

· The scanning interval is optional (0.1, 0.2, 0.5, 1, 2, 5, 10nm);

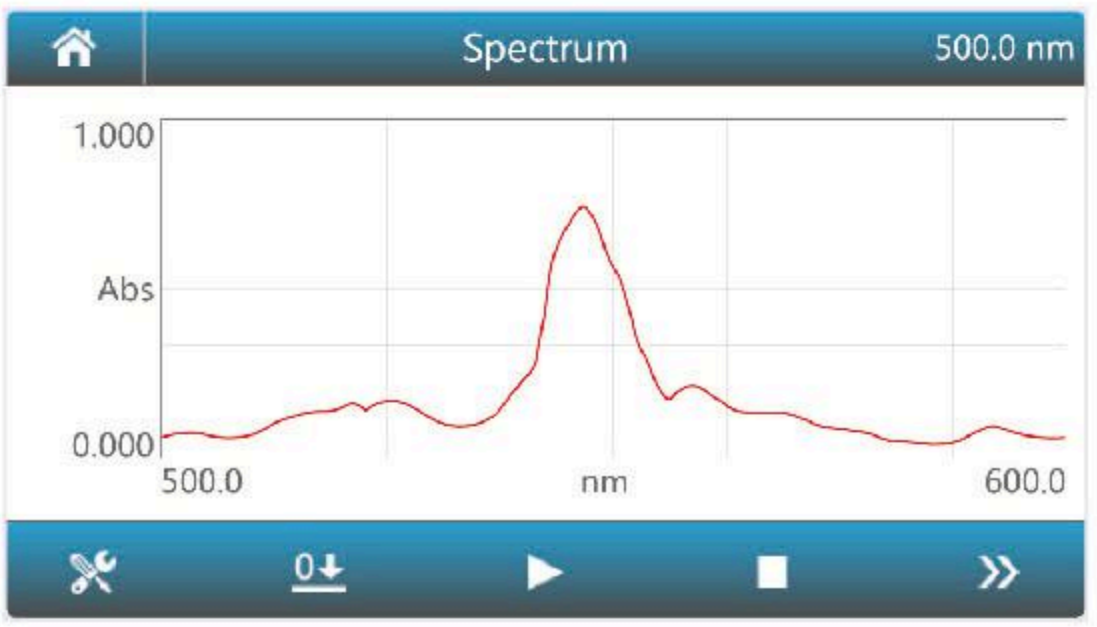
· A / T display mode can be switched;

· Automatically find the peak;

· Point by point (peak) view;

· Coordinate adaptable and modifiable;

· Curves and data can be deleted, saved and printed.

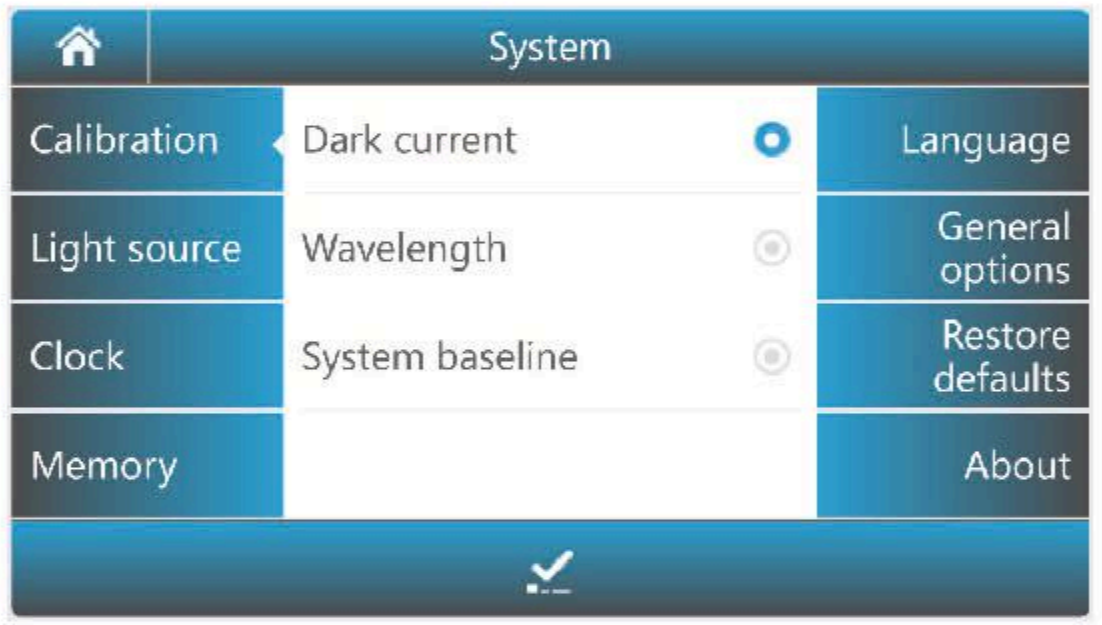


File Management

· Files can be deleted, renamed, batch import / export, converted to **.txt** and **.csv** format.

System Utility

1. system calibration (dark current, wavelength, system baseline) ;
2. Light source management (light source switch, timing) ;
3. Clock management;
4. Memory management (storage status display, formatting) ;
5. Multi language (can be switched) ;
   Wavelength accuracy; Photometric precision;
   Hetero astigmatic light; Wavelength accuracy;
   Photometric precision; Hetero astigmatic light; Noise; Noise;
6. General settings (sound display sample rack and other settings) .



Performance Verification

· Wavelength Accuracy;
· Photometric Accuracy;
· Stray light;
· Noisy;
· Dark noisy;
· Stability;
· Spectral bandwidth.

Software Introduction

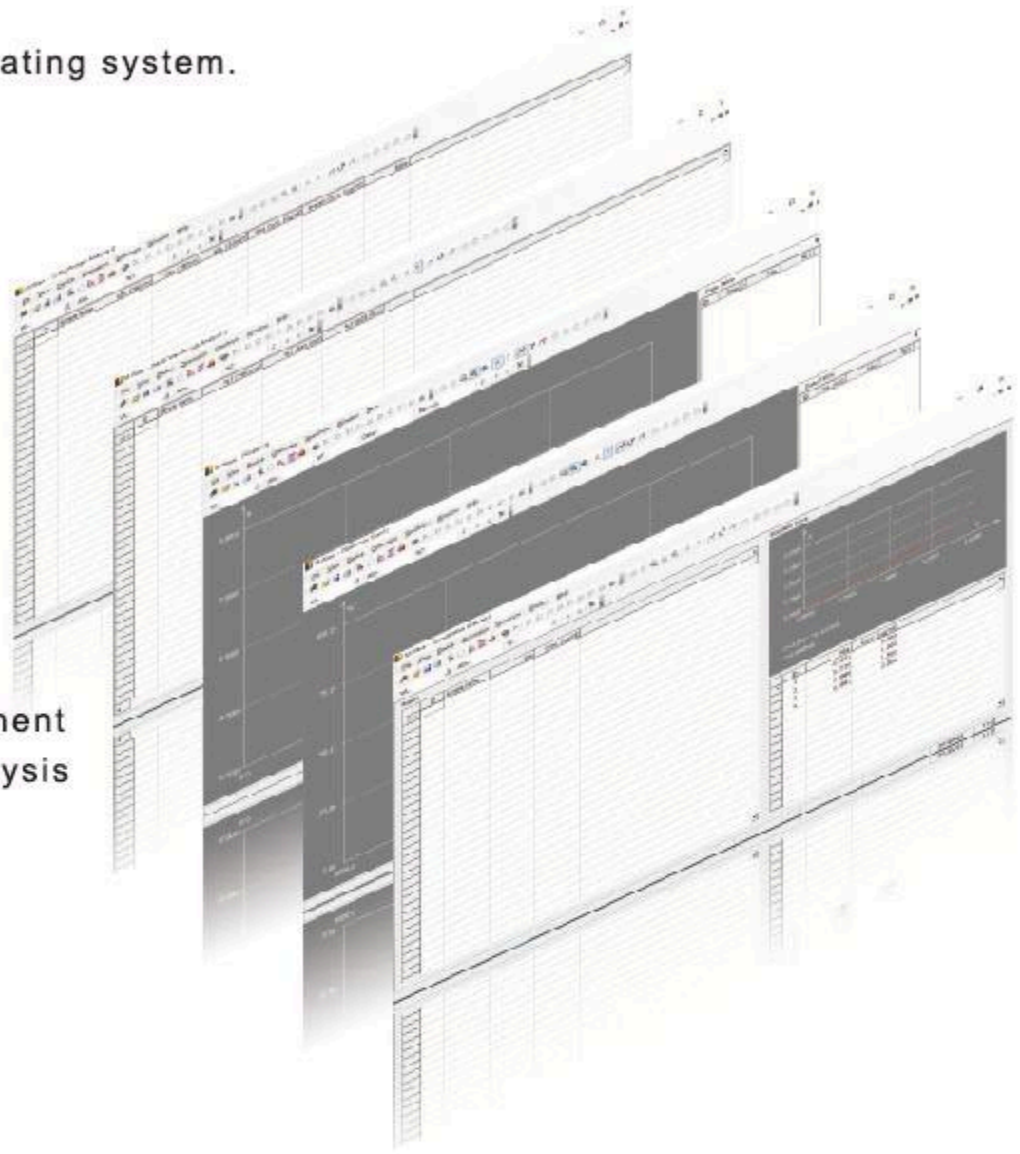
M.Wave Professional is an application software based on Windows operating system.

Software Function :

1.Photometric measurement;
2.Quantitative measurement;
3.Kinetics measurement;
4.Multi wavelength measurement;
5.Spectrum scanning;
6.DNA / protein measurement.

Through the USB interface, the user can connect with the P series UV / Vis spectrophotometer very convenient.

At the same time, the application range, data analysis and file management function of P series instruments are greatly expanded, so that your analysis and measurement work becomes more relaxed and efficient.



Accessories

10-100 mm Automatic 5-cell Holder
Cat.No.:1220000100

Can test 5 sample at the same time, light path from 10-100mm adjustable.

5°Reflectance Accessory
Cat.No.:1102900940

Can test solid or surface reflectance.

Micro Cell Holder
Cat.No.:1102900240

Special measuring accessories for measuring ≤ 200ul capacity.

10mm Water-Jacked 4-cell holder
Cat.No.:1102900610

Test Sample at suitable temperature.

Solid sample 2-position holder
Cat.No.:1102900450

Test solid film or glass.

Automatic 8-cell Holder
Cat.No.:1102900310

Test 8 samples at same time, can improve work efficiency.

Specification

Model		P series Visible Spectrophotometer				P series UV/Vis Spectrophotometer			
		PV1	PV2	PV3	PV4	P1	P2	P3	P4
Optical System		Single Beam							
Light Source		Tungsten Lamp				Tungsten Lamp,Deuterium Lamp			
Detector		Silicon Photodiode							
Bandwidth		4nm	2nm	4nm	2nm	4nm	2nm	4nm	2nm
Wavelength	Range	320 – 1050nm		320 – 1100nm		195 – 1050nm		190 – 1100nm	
	Accuracy	±0.8nm		±0.5nm		±0.8nm		±0.5nm	
	Repeatbility	≤0.3nm		≤0.2nm		≤0.3nm		≤0.2nm	
	Display	0.1nm							
	Gyration speed	10000nm/min							
	Scan speed	—		20-4200nm/min		—		20-4200nm/min	
Photometric	Range	-0.3 – 3A, 0 – 200%T, 0 – 9999.9C							
	Accuracy	±0.5%T @ 0 - 100%T		±0.3%T@0-100%T		±0.5%T @ 0 - 100%T		±0.3%T@0-100%T	
	Repeatbility	≤0.2%T@0-100%T		≤0.1%T@0-100%T		≤0.2%T@0-100%T		≤0.1%T@0-100%T	
	Noise	≤0.0005A @ 0A, ≤0.001A @ 1A, ≤0.002A @ 2A (500nm)							
	Stability	≤0.002A/hr (500nm, 2 hours after preheating)							
Stray Light		≤0.2%T		≤0.05%T		≤0.2%T		≤0.05%T	
Baseline		—		±0.002A		—		±0.002A	
Memory		236KB(Build-in), Unlimited(USB memory stick)							
Display		5 inches color screen(480x272)							
Keypad		Resistive touch screen							
Printer		Serial printer, USB printer (in line with HP PCL3 GUI printing language)							
Port		Serial port (printing), USB-A (storage and printing), USB-B (online)							
Holder	Standard	10mm 4-cell holder							
	Optional	10 – 50mm 4-cell holder,10 – 100mm 4-cell holder,10mm 8-cell Automatic Holder,10 – 100mm 5-cell Automatic Holder, Micro Cell Holder,Peltier/Sipper System,Reflectance Accessories,Solid Sample Holder,Water-Jacked 1 or 4-cell holder,Test Tube Holder							
Function	Photometric	•	•	•	•	•	•	•	•
	Quantitation	•	•	•	•	•	•	•	•
	Spectrum			•	•			•	•
	File Management	•	•	•	•	•	•	•	•
	System Management	•	•	•	•	•	•	•	•
	Performance verification	•	•	•	•	•	•	•	•
Language		6 language(English, German, French, Spanish, Portuguese, simplified Chinese)							
Power		100 - 240V AC, 50/60Hz, 75W				100 - 240V AC, 50/60Hz, 120W			
Dimensions		456（W）×360（D）×185（H）mm							
Weight		10.5kg				10.7kg			

Character

1 . Photometric measurement: one key switch A / T / E;
2 . Quantitative measurement: establish stamdard curve;
3 . Spectrum scanning: coordinate adaptive;
4 . File management: data preservation, editable file name;
5 . Performance verification: verifiable performance specifications;
6 . System application: Multilingual operating system;
7 . Dismountable lamp room cover, can change lamp easily;
8 . Data can be export from the U disk with .CSV and .TXT format;
9 . Support general printer with A4 paper printing;
10. The front baffle of the sample room can be dismantled freely;
11. Special leak hole in the sample room;
12. Antirust treatment cell holder.

Cat. No.

Model	Cat.No.	Model	Cat.No.
P1 Single beam UV/Vis spectrophotometer	1210200900	PV1 Single beam Visible spectrophotometer	1210100900
P2 Single beam UV/Vis spectrophotometer	1210201000	PV2 Single beam Visible spectrophotometer	1210101000
P3 Single beam UV/Vis spectrophotometer	1210201100	PV3 Single beam Visible spectrophotometer	1210101100
P4 Single beam UV/Vis spectrophotometer	1210201200	PV4 Single beam Visible spectrophotometer	1210101200