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Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31

<https://peakii.nt-rt.ru> || [pae@nt-rt.ru](mailto:pae@nt-rt.ru)

# Спектрофотометры ультрафиолетового излучения С-7100/7200 серии



Stability, modern, nice looking project. Applying the latest technology and microcomputer electronic control system. Optics and structure optimization, which could expand the new features, and can ensure the accuracy, stability and performance.

## Main features

1. Operation visible area 7 inches screen, long life, more convenient, more sensitive silica gel button. This instrument can display a variety of scan curve and graph for users to complete a variety of test by computer.
2. Support USB and memory of various data formats, such as Excel and file.txt (get) (\*. \*. \*.txt, CSV qua, \*. (bmp). Users can without any auxiliary software, until the weekend flash test data, open and directly on the computer for editing.
3. Advanced hardware and 32-bit Cortex\_M3 processor, clock speed 120MHz. The device can store data and Article 5 Article 500 curve.
4. High performance 1200 line/mm holographic screen, ultra-low astigmatism noise.
5. The device has a long life jacket with tungsten halogen and deuterium light, can work up to 2000 hours, according to the test need replacement of lighting fixtures, and automatically record its working time. Light socket to replace easier.
6. Excellent silicon photodiode can guarantee the equipment high sensitivity and stability.
7. Work. Huge camera sample and various accessories for different need.
8. Can directly connect printer, output test drawing and data.
9. Powerful computers software.
- 10 task. Powerful expansion capability: 8GB memory standard can store huge test data, and equipped with RS232 USB, host and USB standard.

## User interface design

1. Work aas

Absorbing and aperture test.

☼ Photometry 546.0 nm 0 Energy

No.	Wavelength	Absorbion(Abs)	Transmittance(%T)	Energy(Samp.)	Energy(Ref.)	Test Time

⚙ Photometry

- Absorbion(Abs)
- Transmittance(%T)
- Energy

⚙ Energy

Gain ◀ Gain 8 ▶

Sample Beam 0

Reference Beam 0

### 2. Quantitative test.

For testing sample solution concentration, you can select the coefficient, standards curve, linear degrees, linear zero-crossing of the second type and such methods. Service personnel can choose leisure, double wave, wave and three change double wave and three wave ratio. Forward algorithm to make the regression curve more accurate, test data more accurate.

🧪 Quantitation ug/ul

No.	Absorbion(Abs)	ug/ul

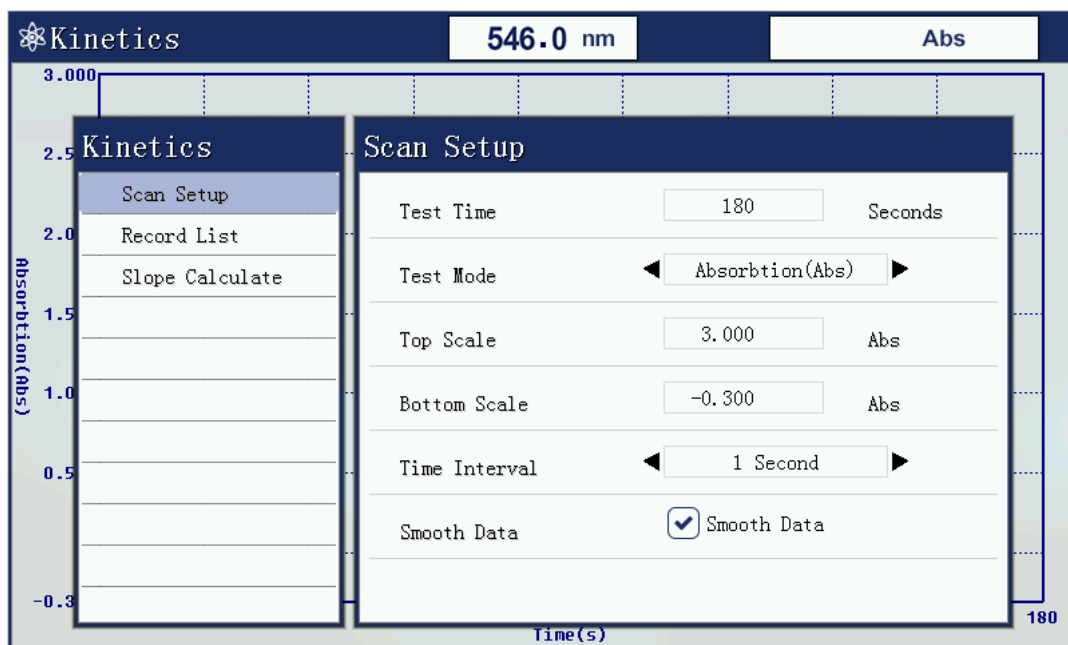
🧪 Quantitation

Create Curve

Open Curve

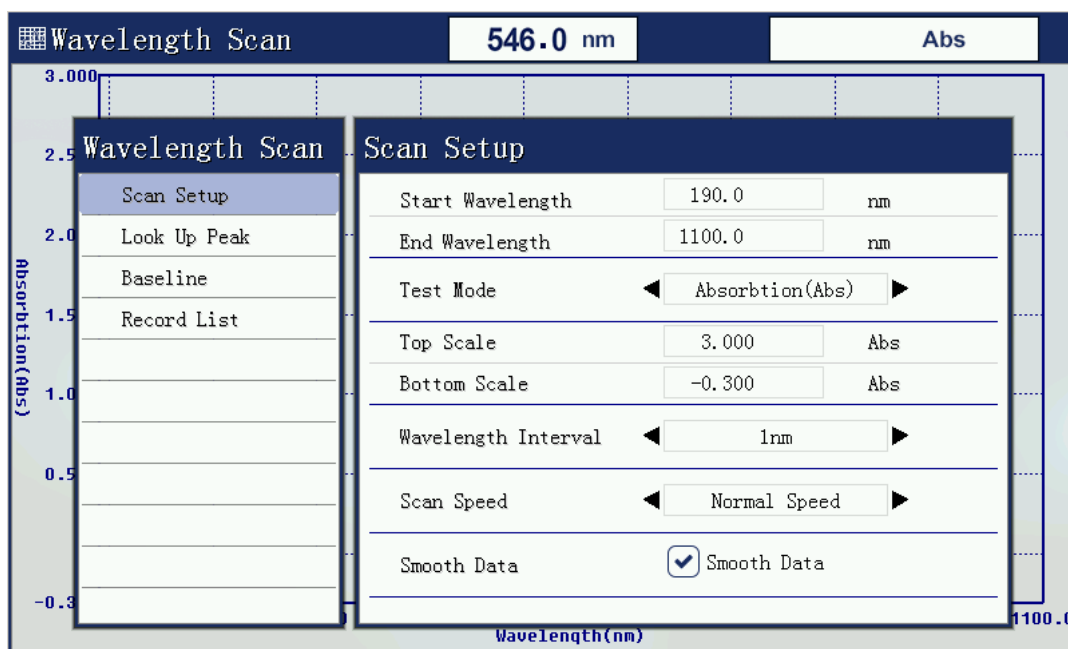
### 3. Dynamics (scan time measurements)

For fastening scanning sample wave solution, chemical reaction of samples testing process. The device in the corresponding input parameters after they calculate the variation.



#### 4. Wavelength scanning (qualitative test)

To test samples solution peak absorption, scans any wavelength range samples characteristic 190-1100nm. Graph and coverage and arithmetic.



#### 5. More Wave Tests

For users to test or absorb the same sample solution, multiple wave algorithms are much simpler than single wave tests are much simpler.

**Multi Wavelength** **546.0 nm** **Abs**

No.	400.0	450.0	500.0	Result												
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p><b>Multi Wavelength</b></p> <p>Wavelength No. ◀ <b>Three Wavelength</b> ▶</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">No.</th> <th style="width: 40%;">Wavelength(nm)</th> <th style="width: 50%;">Factor</th> </tr> </thead> <tbody> <tr> <td>Wavelength 1</td> <td>400.0</td> <td>1.000</td> </tr> <tr> <td>Wavelength 2</td> <td>450.0</td> <td>1.000</td> </tr> <tr> <td>Wavelength 3</td> <td>500.0</td> <td>1.000</td> </tr> </tbody> </table> </div>					No.	Wavelength(nm)	Factor	Wavelength 1	400.0	1.000	Wavelength 2	450.0	1.000	Wavelength 3	500.0	1.000
No.	Wavelength(nm)	Factor														
Wavelength 1	400.0	1.000														
Wavelength 2	450.0	1.000														
Wavelength 3	500.0	1.000														

6. DNA/protein measurement

For a specific user, for example, this is a special function to make the operation easier.

**Protein/DNA Test** **546.0 nm** **Abs**

No.	Abs(260.0)	Abs(280.0)	Abs(320.0)	Ratio	Conc. (DNA)	Conc. (Protein)
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p><b>Protein/DNA Test</b></p> <p>Test Mode ◀ <b>Mode 1</b> ▶</p> <p>Formula(DNA) <math>DNA = (A_{260} - A_{320}) \times 62.9 - (A_{280} - A_{320}) \times 36</math></p> <p>Formula(Pro.) <math>Pro. = (A_{260} - A_{320}) \times 1552 - (A_{280} - A_{320}) \times 757.3</math></p> <p>Wavelength 1 = 260.0 nm</p> <p>Wavelength 2 = 280.0 nm</p> <p>Ref. Wavelength = 320.0</p> <p>Coefficient 1 = 62.90</p> <p>Coefficient 2 = 36.00</p> <p>Coefficient 3 = 1552</p> <p>Coefficient 4 = 757.3</p> </div>						

Standard:

Model	C-7100	C-7100S	C-7100A	C-7200	C-7200S	C-7200PC	C-7200A
display	7inch TFT					No Screen	7inch TFT
keyboard control	Silicone Buttons					No Buttons	Silicone Buttons
Optical System	single beam			double beam			
	Holographic grating, 1200 lines/mm						
Slit Width	2nm	1 nm	0.5,1,2,4,5nm	2nm	1nm	2nm, 1nm	0.5, 1,2,4,5nm
Wavelength Range	190 - 1100nm						
Wavelength Accuracy	±0.3nm						
Wavelength Repeatability	≤0.1nm						
Photometric Accuracy	0.2%T(0-100%T), ±0.002A(0-0.5A), ±0.004A(0.5-1A)						
Photometric Repeatability	≤0.15%T(0-100%T), 0.001A(0-0.5A), 0.002A(0.5-1A)						
Stray Light	≤0.03%T@220nm,360nm						
Stability	±0.001A/h@500nm						
Photometric Range	0-200%T, -0.3-3.0A, 0-9999C(0-9999F)						
Baseline flatness	±0.0015A(200-1000nm)						
noise	0.0003A@500nm						
working mode	T,A,C,E						
Wavelength Setting	Automatic						
Scanning Speed	High, Medium and Low						
Detector	Solid Silicon Photodiode						
light source	Tungsten Halogen/Deuterium Lamp						
data output	RS232C Serial, USB Drive, USB HOST						
Processor	Cortex_M3, 120Mhz						
Power Requirements	AC 110-220V 50-60Hz						
Shipping Dimensions and Weight	770*630*340mm, 27kg						

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