C-7100/7200 Series

Introduction

Steady, modern and elegant appearance design. Adopt the newest microcomputer technology and electronic control system. Optimized optical system and structure can both extend new functions and ensure the accuracy, stability and durability.

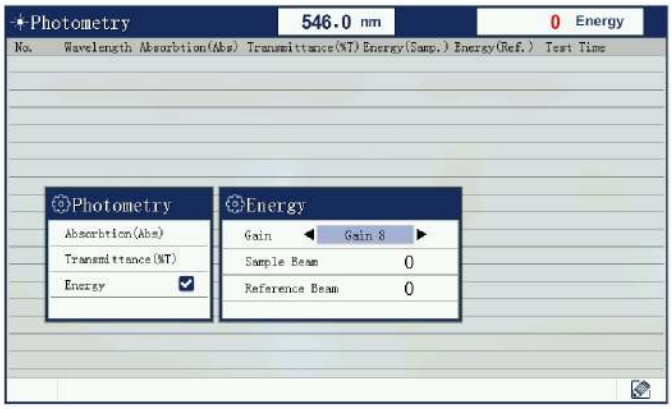
Main Features

- 7 inch TFT screen and long life, more comfortable and sensitive silicone buttons. The instrument can show various scanning curves and charts for users to complete various tests without computers.
- Support USB storage and different data formats such as Excel, txt and photos(*.csv, *.qua,*.txt,*.bmp）. Users can output test data to flash memory, open and edit them on computers directly without any auxiliary software.
- Advanced hardware and 32-bit Cortex_M3 processor with the clock speed 120MHz. The equipment can store 5000 pieces of data and 500 curves.
- High-efficiency holographic grating of 1200 lines/mm and ultra-low stray light.
- The equipment has Long-life socket type tungsten-halogen and deuterium lamps which can work up to 2000 hours, can switch the lamps according to test needs and record its working time automatically. Socket type lamps make the replacement much easier.
- Excellent silicon photodiode can guarantee the equipment is highly sensitive and stable.
- Huge sample chamber and various accessories can meet all kinds of needs.
- Can be connected to printer directly and output test charts and data.
- Powerful PC software.
- Strong extended capability: Standard 8GB memory can store huge test data and equipped with RS232, HOST USB port and standard USB interface.

Specifications

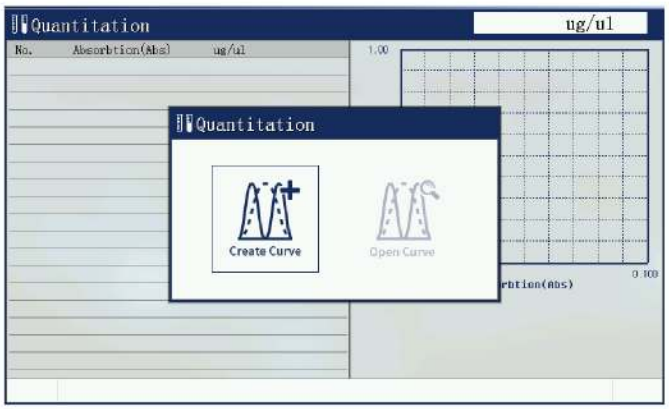
MODEL	C-7100	C-7100S	C-7100A	C-7200	C-7200S	C-7200PC	C-7200A
Display	7 inch TFT					No Screen	7 inch TFT
Keyboard Control	Silicone Buttons					No Buttons	Silicone Buttons
Optical System	Single Beam			Double Beam			
	Holographic grating, 1200 lines/mm						
Slit Width	2nm	1nm	0.5,1,2, 4nm	2nm	1nm	2nm, 1nm	0.5,1,2, 4nm
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	Low, Medium, High (up to 3000nm/min)						
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,						880*690*530mm,
	27kg		30kg	27kg			45kg

UI Design(Silicone Buttons)



Absorbency and transmittance test

Photometry



To test sample solution concentration, you can choose different methods like coefficient, standard curve, linearity, linear zero crossing and quadratic. Operators can choose single, double and tri-wavelength and change the coefficients of double and tri-wavelength. Advanced arithmetic makes curvilinear regression more precise and test data more accurate.

Quantitative Measurement

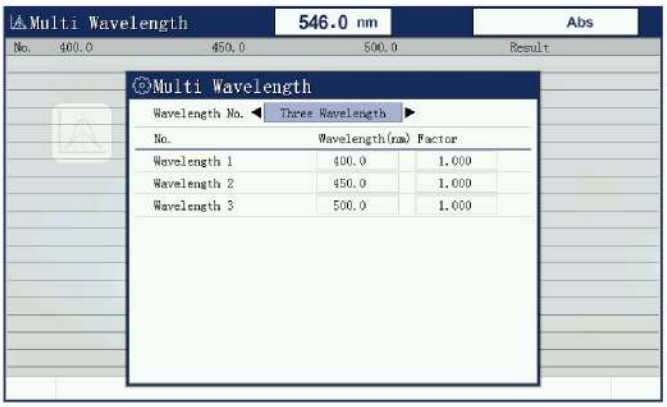
To test the sample chemical reaction process by fixed time scanning the sample solution with fixed wavelength. The equipment can calculate its changing rate after entering the corresponding parameters.

Kinetics Measurement(Time Scanning)

UI Design(Silicone Buttons)

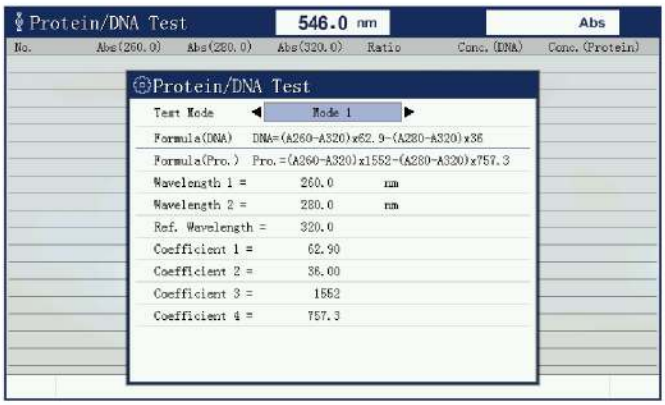
Wavelength Scanning(Qualitative Test)

To test sample solution absorbency peak, can scan the sample characteristic curve of any wavelength range between 190 and 1100nm. And do the chart overlay and arithmetic.



Multi Wavelength Measurement

It is much more convenient for users to test the absorbency or do the arithmetic in case of several wavelengths for the same sample solution, which is much simpler than single wavelength testing.



DNA/Protein Measurement

It is a special function for specific users and make the operation easier.