

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.

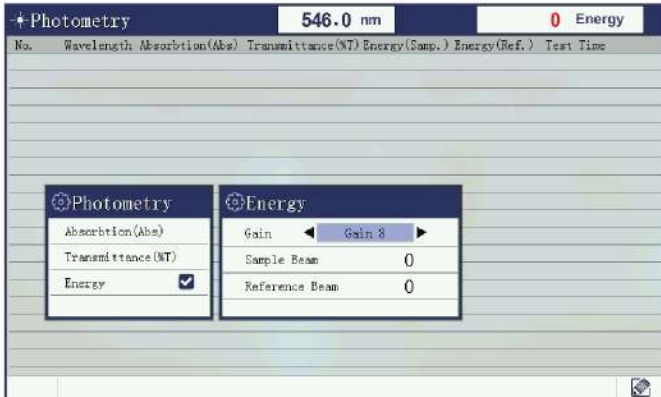
Main Features

- 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.

C-7100/7200 Series

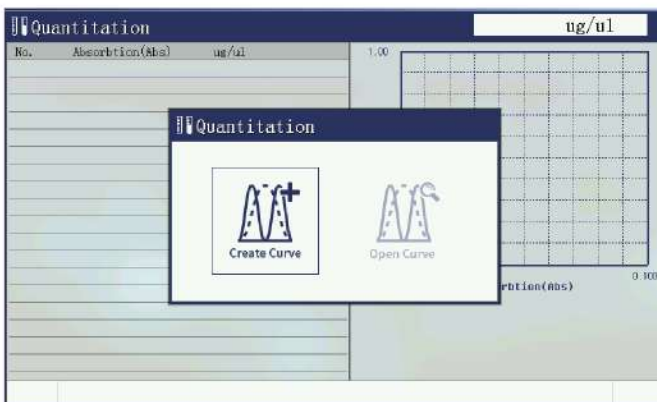
Specifications

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	≤0.2nm						
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	±0.002A/h@500nm						
Photometric Range	0-200%T, -0.3-3.0A, 0-9999C(0-9999F)						
Baseline Flatness	±0.002A (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	RS232 Serial, USB Drive, USB HOST						
Processor	Cortex_M3, 120Mhz						
Power Requirements	AC 110-220V 50-60Hz						
Shipping Dimensions and Weight	880*690*530mm,						880*690*530mm,
	27kg		45kg		27kg		45kg



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



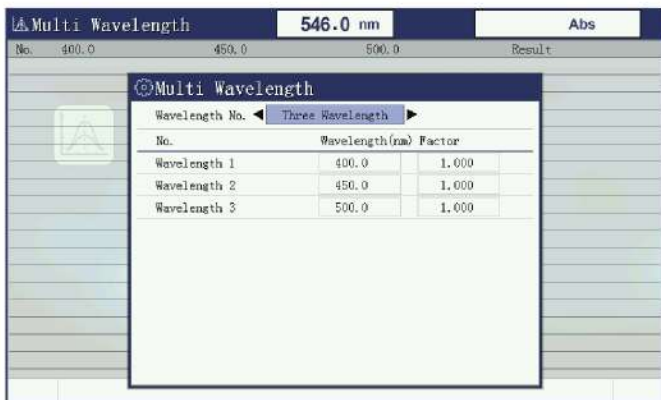
To test the sample chemical reaction process by fixed time scanning the sample solution with fixed wavelength. The equipment can calculate its changing rate after entering the corresponding parameters.

Kinetics Measurement(Time Scanning)



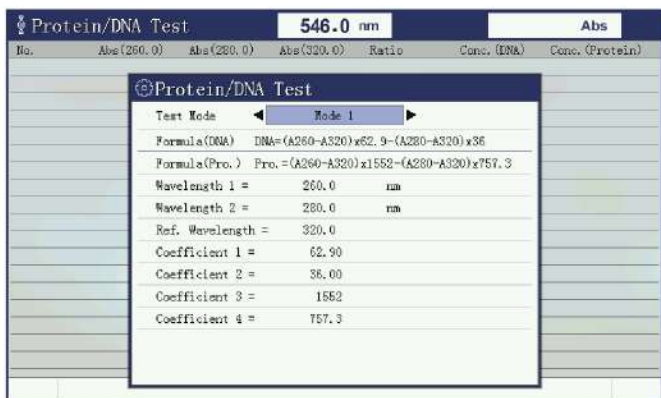
To test sample solution absorbency peak, can scan the sample characteristic curve of any wavelength range between 190 and 1100nm. And do the chart overlay and arithmetic.

Wavelength Scanning(Qualitative Test)



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.

Multi Wavelength Measurement



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

DNA/Protein Measurement

X-8200



Introduction

International advanced xenon light (Hamamatsu) source makes the instrument more stable and reliable. Three years warranty. 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 or capacitive touch screen. 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 xenon lamp which can work up to 5000 hours. Socket type lamp makes 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.

X-8200

Specifications

MODEL	X-8200	X-8200S	X-8200A	X-8200T	X-8200TS	X-8200TA
Display	7 inch TFT			7 inch TFT		
Keyboard Control	Silicone Buttons			Touch Screen		
Optical System	Double Beam					
	Holographic grating, 1200 lines/mm					
Slit Width	2nm	1nm	0.5,1,2,4nm	2nm	1nm	0.5,1,2,4nm
Wavelength Range	190 - 1100nm					
Wavelength Accuracy	±0.6nm					
Wavelength Repeatability	≤0.2nm					
Photometric Accuracy	0.3%T (0-100%T) , ±0.005A(0-0.5A) , ±0.01A(0.5-1A)					
Photometric Repeatability	≤0.2%T (0-100%T), 0.003A(0-0.5A), 0.005A (0.5-1A)					
Stray Light	≤0.1%T@220nm, 360nm					
Stability	±0.002A/h@500nm					
Photometric Range	0-200%T, -0.3-3.0A, 0-9999C (0-9999F)					
Baseline Flatness	±0.002A (200-1000nm)					
Noise	0.002A@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	Xenon Lamp					
Data Output	RS232 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,		770*630*340mm	
	27kg		45kg		27kg	
						880*690*530mm, 45kg

Introduction

Excellent optical system, high level mechanical system, advanced circuit control system, rigorous production process, friendly and intuitive software interface, good technical specifications, stable and reliable performance can meet the analysis requirements from high level and professional customers.



Main Features

Appearance and internal structure

Modern and elegant appearance, extendable design, separate structure design for optical and circuit system can efficiently avoid the loss of photometric energy.

Convenient and intuitive operation interface

This series has 7-inch high resolution colored capacitive touch screen and newly developed UV-SUPER2.0 software with strong functions, which make the operation simple and easy.

Excellent performance and stability

Totally enclosed monochromator and optical mirror coated with SiO₂ guarantee the optical components are not influenced by gas and environment.

- ① Philips and Milas lamps.
- ② Newly improved screw pole drive structure makes good wavelength repeatability and high wavelength accuracy.
- ③ Totally new design, superior materials and rigorous production process.

Advanced photoelectric test system

- ① 32 bit ARM11 microcontroller with clock speed up to 533MHz.
- ② 20 bit analog digital device specialized for photoelectric data collection and processing from BB company.
- ③ Support internal huge data storage, mouse operation and big SD card memory.

Simple and convenient maintenance

- ① Socket type lamps make the optical adjustment not necessary and maintenance much easier.
- ② Separated Optical and circuit system has no cross influence and make the instrument more reliable.

T-9100/9200

Specifications

MODEL	T-9100	T-9200	T-9200S	T-9200A
Display	7 inch TFT colored capacitive touch screen			
Wavelength Range	190 - 1100nm			
Optical System	Single Beam	Double Beam		
Spectral Bandwidth	2nm	2nm	1nm	0.5,1,2,4nm
Wavelength Accuracy	±0.5nm	±0.5nm	±0.3nm	±0.3nm
Wavelength Repeatability	≤0.2nm	≤0.2nm	≤0.2nm	≤0.2nm
Photometric Range	0-200%T, -0.3-3.0A, 0-9999C (0-9999F)			
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)			
Scanning Speed	Low, Medium, High (up to 3000nm/min)			
Stray Light	≤0.05%T@220nm,360nm			
Baseline Flatness	±0.003A	±0.002A	±0.002A	±0.002A
Drift	0.003A/30min @500nm	0.002A/30min @500nm	0.002A/30min @500nm	0.002A/30min @500nm
Noise	0.0003A@500nm			
Working Mode	T,A,C,E			
Wavelength Setting	Automatic			
Detector	Solid Silicon Photodiode			
Light Source	Tungsten Halogen/Deuterium Lamp			
Output Port	USB HOST, USB DRIVE, RS232			
Power Requirements	AC 110-220V 50-60Hz			
Humidity Range	Less Than 85%			
Shipping Dimensions and Weight	770*630*340mm, 27kg			880*690*530mm, 45kg



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)



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.

Wavelength Scanning(Qualitative Test)

Options	190	210	300	500	700	800	900	1000	1100 (nm)
01	0.210	0.410	0.210	0.210	0.280	0.910	0.210	0.210	0.210
02	0.210	0.410	0.210	0.210	0.280	0.910	0.210	0.210	0.210
03	0.210	0.410	0.210	0.210	0.280	0.910	0.210	0.210	0.210

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.

Multi Wavelength Measurement

Options	1100 Abs	600 Abs	400 Abs	比率	蛋白质(浓度)	核酸(浓度)
01	0.210	0.410	0.210	0.910	0.210	0.210
02	0.210	0.410	0.210	0.910	0.210	0.210
03	0.210	0.410	0.210	0.910	0.210	0.210

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

DNA/Protein Measurement

Accessories



Manual 4-position cell holder (standard for single beam)



Single-hole cuvette holder (Standard for Double Beam)



Automatic 8-position round cell holder



Manual 4-position 10cm cell holder



Manual 4-position film holder



Single hole film holder



Single hole long optical path holder



Tube rack



Adjustable XY micro cell holder

Comparison Table

	UV/Vis.	Optical System	Display	Slit Width	Wavelength Accuracy	Wavelength Repeatability	Stray Light	Light Source	Page				
E-1000V	Vis.	Single	70*40mm LCD	4 nm	±2 nm	≤1 nm	≤0.15%T@360nm	Tungsten Halogen Lamp	1/2				
E-1000UV	UV							Tungsten Halogen /Deuterium Lamp					
C-7000V	Vis.	Single	7 inch FTF	2 nm	±0.3 nm	≤0.2 nm	≤0.05%T @220nm,360nm	Tungsten Halogen Lamp	3/4				
C-7000UV	UV							Double		1 nm	0.5,1,2,4nm	2 nm	1 nm
C-7100									Double				
C-7100S													
C-7100A													
C-7200													
C-7200S													
C-7200A													
C-7200PC													
X-8200	UV	Double	7 inch FTF	2 nm	±0.6 nm	≤0.2 nm	≤0.1%T @220nm,360nm	Xenon Lamp	9/10				
X-8200S				1 nm									
X-8200A				0.5,1,2,4 nm									
X-8200T			Touch Screen	2 nm									
X-8200TS				1 nm									
X-8200TA				0.5,1,2,4nm									
T-9100	UV	Single	Touch Screen	2 nm	±0.5 nm	≤0.2 nm	≤0.05%T @220nm,360nm	Tungsten Halogen /Deuterium Lamp	11/14				
T-9200		Double		1 nm	±0.3 nm	≤0.2 nm							
T-9200S													
T-9200A										0.5,1,2,4,nm			