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# **B01- CT-8 Series Double Beam UV/Vis Spectrophotometer**



## **Descriptions**

CT-8 Series is an advanced double beam design, CT8200 with 1.8nm fixed bandwidth and CT8600 with 1.0 fixed bandwidth, the two detectors measure sample and reference respectively and simultaneously for optimizing measurement accuracy. They provide excellent performance for measurements in the range of 190 to 1100nm, the memory is 32K. They are suitable for pharmaceutical, biochemical and clinical lab applications as well as routine applications such as quantitative analysis, kinetics, wavelength scan, multiple components and DNA/Protein, PC Windows application software make these instruments versatile. All instruments provide excellent performance for measurements

#### **Features**

- 1. Fixed Bandwidths
- 2. For Stand-alone models, all software methods are included as built-in standard; this eliminates the need of software.
- 3. Online software upgrading via internet helps to keep it updated.
- 4. Data Download-to-PC software expands the data storage to unlimited.
- 5. The stand-alone model has 5 inch screen and the PC model has UV/Vis Analyst software.
- 6. Data can be saved by USB memory device directly.

## **Brief Function Introduction**

All methods are included as built-in standard; this eliminates the need of software. Online software update via internet. The local control software includes functions such as: Photometry, Quantitative, Wavelength Scan, Kinetics, DNA/Protein, Multi-wavelength Test and System Utilities.

Model	CT-8200	CT-8600		
Wavelength Range	190-1100nm			
Spectral Bandwidth	1.8nm	1.0nm		
Optical System	Double Beam,Gra	ting 1200 lines/mm		
Wavelength Accuracy	±0.	.3nm		
Wavelength Repeatability	0.2	2nm		
Scan Speed	Hi,MED.,LOW.,	MAX.3000nm/min		
Photometric Accuray	±0.3%T or =	±0.003A@1A		
Photometric Range	0-200%	T,-0.3-3A		
Stray Light	0.04%T@220nm,360nm			
Stability	0.0003A/h@500nm			
Display	5 inches LCD (320*240 dots)			
Baseline Flatness	$\pm 0.0005 A$			
Sample Compartment	Standard 10mm pathlength cuvette			
Light Source	Tungsten & Deuteri	um lamp (pre-aligned)		
	USB Type A port for USB	memory device(Right side)		
Output	USB Type B port for optional computer connectivity (Back)			
	Parallel Po	rt for Printer		
Power Requirement	AC 110/22	0V 50/60HZ		
Dimension(L*W*H)	589*428*200mm			
Weight	21	2kg		

Part No.	SN	Descriptions	Qty
	1	Instrument	1 set
	2	User's manual	1pc
	3	Cuvette glass,10mm	1box(4pcs)
	4	Cuvette quartz,10mm	1box(2pcs)
CT-8200 &	5	UV Analyst software	1set
CT-8600		5.1 CD	1pc
		5.2 Dongle	1pc
		5.3 USB connecting line	1pc
		5.4 Software instruction manual	1pc
	6	Dust cover	1pc
	7	Power cable	1pc
	8	8 position Auto cell changer	1pc
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# **B01- CT-5, CT-6 Series Single Beam UV/Vis Spectrophotometer**



# **Descriptions**

CT-5, CT-6 is an advanced single beam design, it provides excellent performance for measurements. It is suitable for clinical, pharmaceutical, and bio-chemical lab applications, as well as routine applications such as quantitative analysis, kinetics, Wavelength Scan, Multi-Wavelength and DNA/Protein analysis. The memory is 32K.

UV-Vis Analyst software Based Microsoft Windows makes these instruments versatile. All instruments provide excellent performance for measurements.

## **Features**

- 1. Fixed bandwidths. (model #CT-6400 is Variable slits bandwidths)
- 2. Sealed, solvent-resistant tactile keypad with alpha-numeric entry for file names and units.
- 3. Pre-aligned deuterium lamp for easy lamp replacement. The status of the lamps may be monitored
- 4. PC Windows based software UV/Vis Analyst including sophisticated utility programs.
- 5. Data Download-to-PC software for stand-alone models (Optional)
- 6. Real-time clock for date and time stamping of results.
- 7. Data can be saved by USB memory device directly.

## **Brief Function Introduction**

All methods are included as built-in standard; this eliminates the need of software. Online software update via internet.

The local control software includes functions such as: Photometry, Quantitative, Wavelength Scan, Kinetics, DNA/Protein, Multi-wavelength and System Utilities.

Model	CT-5100	CT-5700	CT-6200	CT-6400	CT-6600	
Wavelength Range	190-1100nm					
Spectral Bandwidth	4.0nm	4.0nm 2.0nm 1.8nm 0.5/1/2/4/5nm				
Optical System		Single Bea	am, Grating 12	00 lines/mm		
Wavelength Accuracy	±0.5	5nm		±0.3nm		
Wavelength Repeatability	0.3	nm		0.2nm		
Scan Speed		HI,MED.,	LOW., MAX.3	000nm/min		
Photometric Accuray	$\pm 0.5\%$ T or $\pm 0$	±0.5%T or ±0.004A@1A ±0.3%T or ±0.003A@1A				
Photometric Range		0-200%	6T,-0.3-3A,0-9	999Conc		
Stray Light	0.05%T@220nm,340nm					
Stability	0.0008A/h@500nm					
Display	5 inches LCD (320*240 dots)					
Baseline Flatness	±0.002A ±0.0015A					
Standard Cell Holder		Standard	10mm pathlen	gth cuvette		
Light Source		Tungsten &	Deuterium lam	p (pre-aligned)		
	USI	B Type A port f	or USB memor	y device(Right sid	e)	
Output	USB T	ype B port for	optional compu	ter connectivity (E	ter connectivity (Back)	
	Parallel Port for Printer					
Power Requirement		AC	110/220V 50/6	50HZ		
Dimension(L*W*H)	491*3	65*180mm		579*428*198mm		
Weight	14	kg		20kg		

Part No.	SN	Descriptions	Qty
	1	Instrument	1set
	2	User's manual	1pc
	3	Cuvette glass,10mm	1box(4pcs)
	4	Cuvette quartz,10mm	1box(2pcs)
CT-5100 CT-5700	5	UV Analyst software	1set
		5.1 CD	1pc
CT-6200		5.2 Dongle	1pc
CT-6400 CT-6600		5.3 USB connecting line	1pc
		5.4 Software instruction manual	1pc
	6	Dust cover	1pc
	7	Power cable	1pc

# B01- CT-2500~ CT-2800 Series Spectrophotometer



# **Descriptions**

CT-2500~CT-2800 spectrophotometer is simple-to-use instruments with advanced performance; its stray light is only 0.05% T. The local stand-alone software provides functions of Photometry, Quantitative Test, Kinetics and System Utilities functions.

## **Features**

1. Large LCD screen (128\*64 Dots).

2. System can also save the test results, total 200 groups of data 200 standard curves can be saved in the RAM. Convenient for check and reload.

3. Data can be restored after a sudden power cut.

4. Auto setting wavelength.

5. Tungsten lamp can be turned on/off individually to extend lifetime.

6. The optional application software *M. Wave Professional* provides complete control of the spectrophotometer from a computer through the Built-in USB port. It can expand to the following functions: Quantitative, Kinetics, Wavelength Scan, Multi-wavelength & DNA/Protein Test.

7. Pre-aligned design makes it convenient to change lamps.

8. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders. A variety of optional accessories are available

# **Function**

1. Photometry

Absorbance, Transmittance or Energy measurements. It can display and save 200 groups of data, 5 groups per screen.

- 2. Quantitative.
- 2.1 Standard Curve

At most, 9 standard samples can be used to establish a standard curve. The curve and its equation will be displayed on the screen simultaneously. You can measure your unknown concentration solutions by the curve, total 200 curves can be saved in the Memory.

## 2.2 Coefficient Method

If the coefficient k & b in the formula C=k\*a + b is known, you can input them directly by the button, and then test your unknown solutions.

3. Kinetics.

This mode may be used for time course scanning or reaction rate calculations. Abs. VS Time graphs is displayed on the screen in real time. It can most record 1000 data.

4. System Utilities

Lamp management, time & date set, obtain dark current, calibrate wavelength, default system, and some other system functions.

Model	CT-2500	CT-2700	CT-2600	CT-2800	
Wavelength Range	320-11	100nm	190-1100nm		
Spectral Bandwidth	4nm	2nm	4nm 2nm		
Optical System		Single Beam, Grati	ng 1200 lines/mm		
Wavelength Accuracy		±0.5	nm		
Wavelength Repeatability		0.3	nm		
Photometric Accuray		±0.5%T or ±0	0.004A@1A		
Photometric Range	0-200%T,-0.3-3A,0-9999Conc				
Stray Light	0.05%T@360nm 0.05%T@220nm,3			220nm,360nm	
Stability	0.001A/h@500nm				
Display	Graphic LCD (128*64 dots)				
Keyboard	22 membrane keypad				
Standard Cell Holder		4-position 10m	n cell changer		
Sample Compartment		Standard 10mm pa	athlength cuvette		
Light Source	Tungsten lamp Tungsten & Deuterium lamp				
Output		USB Port & Paral	lel Port (Printer)		
Power Requirement	AC 110/220V 50/60HZ				
Dimension(L*W*H)	470*373*187mm				
Weight	12kg			14kg	

Part No.	SN	Descriptions	Qty
	1	Instrument	1set
	2	User's manual	1pc
	3	Cuvette glass,10mm	1box(4pcs)
CT-2500	4	Cuvette quartz,10mm	1box(2pcs)
CT-2600		(only for CT-2600 & CT-2800)	
CT-2700	CT-2700 5 M.Wave Basic software		
CT-2800		4.1 CD or	1pc
		5.1CD	
		4.2 software instruction manual or	1pc
		5.2 Software instruction manual	
	6	Dust cover	1pc
	7	Power cable	1pc

## B01- CT-2300~ CT-2400 Series Spectrophotometer



# **Descriptions**

CT-2300/CT-2400 spectrophotometer is the ideal instrument for education and QC laboratories. Using your standard sample solutions, you can get a standard curve on the large LCD screen. They are widely used in colleges and enterprises for general quantitative analysis and experiments.

# **Features**

- 1. Large LCD screen (128\*64 Dots).
- 2. Can display total 50 groups of data,3 groups per screen. Can display standard curve and the curve equation.
- 3. System can also save the test results, total 200 groups of data and 200 standard curves can be saved, it is convenient for check and reload.
- 4. Data can be restored after a sudden power cut.
- 5. Auto setting wavelength.
- 6. Tungsten lamp can be turned on/off individually to extend lifetime.
- 7. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders, a variety of optional accessories are available.
- 8. The free application software *M.Wave Basic* provides complete control of the spectrophotometer through the Built-in USB port, you can achieve the following functions:
  - I .Quantitative II .Kinetics III.Photometric Test

# **Function**

- 1. Basic Mode: Absorbance, Transmittance, Concentration
- 2. Quantitative
  - 2.1 Standard Curve

Maximum of 9 standard samples can be used to establish a standard curve: the curve equation will display on the screen simultaneously, you can test your unknown concentration solutions by the curve.

## 2.2 Coefficents Methods

If you have known the coefficients K&b of the formula  $C=K^*A+b$ , you can input the value directly by button, then test your unknown solution.

Model	CT-2300	CT-2400		
Wavelength Range	325-1000nm	200-1000nm		
Spectral Bandwidth	4	nm		
Optical System	Single Beam, Grati	ng 1200 lines/mm		
Wavelength Accuracy	±2	nm		
Wavelength Repeatability	0	.8nm		
Photometric Accuray	±0.5%T or	±0.004A@1A		
Photometric Range	0-200% T,-0.3-3	A,0-9999Conc		
Stray Light	0.2%T			
Stability	0.002A/h@500nm			
Detector	Silicon Photodiode			
Standard Cell Holder	4-position 10m	m cell changer		
Sample Compartment	Standard 10mm pa	athlength cuvette		
Light Source	Tungsten lamp	Tungsten & Deuterium lamp		
Output	USB Port & Paral	lel Port (Printer)		
Power Requirement	AC 110/220	V 50/60HZ		
Dimension(L*W*H)	440*387	*180mm		
Weight	12kg	12kg 14kg		

Part No.	SN	Descriptions	Qty
	1	Instrument	1set
	2	User's manual	1pc
	3	Cuvette glass,10mm	1box(4pcs)
CT-2300	4	Cuvette quartz,10mm	1box(2pcs)
CT-2400		(only for CT-2400)	
	5	M.Wave Basic software	1set
		4.1 CD or	1pc
		5.1CD	
		4.2 software instruction manual or	1pc
		5.2 Software instruction manual	
	6	Dust cover	1pc
	7	Power cable	1pc

## B01- CT-1500 / CT-2200 Series Spectrophotometer



CT-1500



# **Descriptions**

 $\underline{CT-1500}$  is the only model of manually setting wavelength, but precise design and high quality components ensures excellent performance. It is widely used in high schools and colleges for general analysis and experiments.

<u>CT-2200</u> spectrophotometer is the ideal instrument for education and QC laboratories.Using your standard sample solutions, you can get a standard curve on the large LCD screen. They are widely used in colleges and enterprises for general quantitative analysis and experiments.

## **Features**

<u>CT-1500</u>

- 1. Large LCD Screen (128\*64 Dots). 2. Wavelength can be read out from the screen directly.
- 3. Auto Zero and Blank. 4. Parallel port, printed directly.
- 5. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders.
- 6. Pre-aligned design ensures the user can change lamp conveniently.
- 7. Optional PC software *M. Wave Basic* based on Windows can expand the applications to Standard Curve & Kinetics.
- 8. High quality silicon photometric diode detector and 1200 lines/mm grating ensure high accuracy and precision.

## <u>CT-2200</u>

- 1. Large LCD screen (128\*64 Dots).
- 2. Can display total 50 groups of data,3 groups per screen.Can display standard curve and the curve equation.
- 3. System can also save the test results,total 200 groups of data and 200 standard curves can be saved, it is convenient for check and reload.
- 4. Data can be restored after a sudden power cut.
- 5. Auto setting wavelength.
- 6. Tungsten lamp & Deuterium lamp can be turned on/off individually to extend lifetime.
- 7. Pre-aligned design makes it convenient to change lamps.
- 8. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders, a variety of optional accessories are available.
- 9. The free application software *M.Wave Basic* provides complete control of the spectrophotometer through the Built-in USB port, you can achieve the following functions:
  - I .Quantitative II .Kinetics III.Photometric Test

# Function CT-2200

- 1. Basic Mode: Absorbance, Transmittance, Concentration
- 2. Quantitative

# **Specifications**

Model	CT-1500	CT-2200		
Wavelength Range	325-1000nm	200-1000nm		
Spectral Bandwidth	4	nm		
Optical System	Single Beam, Grati	ng 1200 lines/mm		
Wavelength Accuracy	±2	nm		
Wavelength Repeatability	1	nm		
Photometric Accuray	±0.5% T or	±0.004A@1A		
Photometric Range	0-200%T,-0.3-3A,0-1999Conc	0-200%T,-0.3-3A,0-9999Conc		
Stray Light	0.2%T			
Stability	±0.004A/h@500nm ±0.002A/h@500nm			
Display	LCD 128*64 Dots			
Detector	Silicon Photodiode			
Photometric Mode	T,A,	C,F		
Standard Cell Holder	4-position 10m	m cell changer		
Sample Compartment	Standard 10mm pa	athlength cuvette		
Light Source	Tungsten lamp	Tungsten & Deuterium lamp		
Output	USB Port & Parallel Port (Printer)			
Power Requirement	AC 85V~265V 50/60HZ AC 110/220V 50/60HZ			
Dimension(L*W*H)	440*387*180mm			
Weight	8kg	14kg		

Part No.	SN	Descriptions	Qty
	1	Instrument	1set
	2	User's manual	1pc
	3	Cuvette glass,10mm	1box(4pcs)
CT-1500	4	Cuvette quartz,10mm	1box(2pcs)
CT-2200		(only for CT-2200)	
	5	M.Wave Basic software	1set
		4.1 CD or	1pc
		5.1CD	
		4.2 software instruction manual or	1pc
		5.2 Software instruction manual	
	6	Dust cover	1pc
	7	Power cable	1pc

Medal	Optical	Wavelength	Spectral	Kinatiaa	DNA/	Seenning	Diaplay	PC
woder	System	Range	Bandwidth	Kinetics	Protein	Scanning	Display	Software
CT-8600	Double Beam	190~1100nm	1nm	0	0	0	LCD 320*240	Analyst Software
CT-8200	Double Beam	190~1100nm	1.8nm	0	0	0	LCD 320*240	Analyst Software
CT-6600	Single Beam	190~1100nm	1nm	0	0	$\bigcirc$	LCD 320*240	Analyst Software
CT-6400	Single Beam	190~1100nm	0.5/1.0/2.0/ 4.0/5.0nm	0	$\bigcirc$	$\bigcirc$	LCD 320*240	Analyst Software
CT-6200	Single Beam	190~1100nm	1.8nm	0	0	0	LCD 320*240	Analyst Software
CT-5700	Single Beam	190~1100nm	2nm	0	0	0	LCD 320*240	Analyst Software
CT-5100	Single Beam	190~1100nm	4nm	0	0	0	LCD 320*240	Analyst Software
CT-2800	Single Beam	190~1100nm	2nm	0	Х	Х	LCD 128*64	Common Software
CT-2600	Single Beam	190~1100nm	4nm	0	Х	Х	LCD 128*64	Common Software
CT-2400	Single Beam	200~1000nm	4nm	Х	Х	Х	LCD 128*64	Common Software
CT-2200	Single Beam	200~1000nm	4nm	Х	Х	Х	LCD 128*64	Common Software
CT-2700	Single Beam	320~1100nm	2nm	0	Х	Х	LCD 128*64	Common Software
CT-2500	Single Beam	320~1100nm	4nm	0	Х	Х	LCD 128*64	Common Software
CT-2300	Single Beam	325~1000nm	4nm	Х	Х	Х	LCD 128*64	Common Software
CT-1500	Single Beam	325~1000nm	4nm	X	Х	Х	LCD 128*64	Common Software

#### **Optional Accessories:**

- 1. Single cell holder for 10mm squ.cuvette.
- 2. Cylindrical cell holder
- 3. Test tube holder
- 4. Long path cell Holder
- 5. 4-cell holder for up to 50mm squ.cuvette
- 6. 4-cell holder for up to 100mm squ.cuvette
- 7. Micro cell holder
- 8. Water-jacketed cell holder
- 9. Peltier/sipper system
- 10. Thermo printer

- 11. Common software
- 12. Advanced PC window software
- 13. Reflectance meachment attachment
- 14. Deuterium lamp
- 15. Halogen lamp
- 16. 100ul Micro cell
- 17. 200ul Micro cell
- 18. 500ul Micro cell
- 19. Standard holmium solution
- 20. Neutral filter