

Spectrophotometer



CS-500

CS-520

CS-500/520

Product Features

■ High Accuracy

It can pass Level I metrology, repeatability less than 0.04* inter-instrument agreement less than 0.2**.

■ 29 Color indexes and 26 kinds of illuminants

Support the color measurement and color difference judge under the illuminants of D65/D50/A/CWF and so on. Measure reflectance, Lab, LCh, WI, YI, Blackness, Color strength and other 29 color indices.

■ Automatic calibration

Easy operation for better user experience.

■ UV Included and Excluded

UV included / excluded for fluorescence materials color / color difference measurement.

■ Connect APP to expand more application

Find the most similar color from Colorcard
Establish the personal color database in the clouds
Check the Color inspiration.

■ Switchable Apertures

Switchable apertures 1*3mm/4mm/8mm to measure samples with different sizes.

Technical Data

Model	CS-500	CS-520
Geometry	D/8, SCI(diffused illumination 8° viewing Specular component included)	D/8, SCI/SCE(diffused illumination, 8° viewing Specular component included, Specular component excluded)
Repeatability and Stability	Max: dE*ab < 0.1 Average: dE*ab < 0.05 Standard deviation: dE*ab < 0.03 Reflectance: Standard Deviation *	Max: dE*ab < 0.04 Average: dE*ab < 0.03 Standard deviation: dE*ab < 0.02 Reflectance: Standard Deviation *
Inter-instrument agreement	Average ΔE*ab < 0.3 Max ΔE*ab < 0.5 **	Average ΔE*ab < 0.2 Max ΔE*ab < 0.4 **
Illumination Area Aperture	MAV: Φ8mm/Φ11mm	Switchable: MAV: Φ8mm/Φ11mm SAV: Φ4mm/Φ6mm MINI: 1*3mm
Illuminants	A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, TL83, TL84	
Color Indices	Reflectance, CIE-Lab, CIE-LCh, HunterLab, CIE-Luv, XYZ, Yxy, RGB, Color difference (ΔE*ab, ΔE*cmc, ΔE*94, ΔE*00), WI (ASTM E313-00, ASTM E313-73, CIE/ISO, AATCC, Hunter, TaubeBergerStensby), YI (ASTM D1925, ASTM E313-00, ASTM E313-73), Blackness (My, dM), Color Fastness Tint, (ASTM E313-00), Color Density CMYK (A, T, E, M), Milm, Munsell Opacity, Color strength	
Sensor	256 Pixel CMOS Sensor	
Display Resolution	0.1	0.01
Spectroscopic Method	Concave Grating Spectroscopy	
Sphere diameter	40mm	
Standards	Conform to standards CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7	
Lighting source	LED(Full band balanced LED light source)	LED(Full band balanced LED light source)+UV light source
Wavelength Interval	10nm	
Wavelength range	400-700nm	
Reflectance Range	0-200%	
Measurement time	2s	1s
Interface	USB, Bluetooth	
Observer Angle	2°, 10°	
Screen	IPS Full color screen, 2.4 inches	
Battery	Rechargeable, 8000 times continuous tests 3.7V/3000mAh	
Light source lifetime	One million times for 10 years	
Language	Chinese, English	
Calibration	Automatic Calibration	
Color Matching Software	Support color matching on APP(if user buy the color matching software)	
Software support	Andriod, iOS, Windows	
Camera	No	Yes
Metrology Level	Level I	
Storage	App and PC software for mass storage	

*(When a white tile is measured 30 times after 5-seconds interval.)

** (BCRA Series II, average measurement of 12 tiles, MAV/SCI)