

Portable Spectrophotometer



DS-700A



DS-700D



DS-700E

# DS-700A/700D/700E

## Product Features

- Excellent repeatability and inter-instrument agreement. (repeatability :  $dE^*ab \leq 0.02$  (max.) and inter-instrument agreement :  $\leq 0.2$ )
- Dual optical path high precise CMOS array sensor.
- Intelligent auto calibration, white tile is made by ZrO2 with reflectance more than 90%, no need for frequent white calibration.
- 400-700nm Full Wavelength Balanced LED+UV.
- 10nm Resolution Grating Spectroscopy Technology.
- Three aperture as standard accessories, no tools are needed and apertures can be replaced at any time to meet different sample measurement requirements.
- More than 30 kinds of color indices and 37 kinds of illuminants.
- It supports Android, IOS and Windows program.
- It is with the camera to see the measurement area clearly.

## Technical Data

Name	DS-700A	DS-700D	DS-700E
Geometry <sup>※</sup>	D/8, SCI/SCE		
Repeatability <sup>※※</sup>	$\Delta E^*ab \leq 0.025$	$\Delta E^*ab \leq 0.02$	
Inter-instrument agreement <sup>※※※</sup>	$\Delta E^*ab \leq 0.25$	$\Delta E^*ab \leq 0.25$	$\Delta E^*ab \leq 0.2$
Display Resolution	0.01		
Measuring aperture	Two: $\Phi 11mm, \Phi 6mm$	Four: $\Phi 11mm, \Phi 6mm, \Phi 3mm, 1^*3mm$	Six: $\Phi 11mm, \Phi 10mm, \Phi 6mm, \Phi 5mm, \Phi 3mm, 1^*3mm$
Measurement index	Reflectance,CIE-Lab,CIE-LCh,HunterLab,CIE-Luv,XYZ,Yxy,RGB, Color difference( $\Delta E^*ab, \Delta E^*cmc, \Delta E^*94, \Delta E^*00$ ),WI(ASTM E313-00, ASTM E313-73,CIE,ISO2470/R457, 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		
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,ID50,ID65,LED-B1,LED-B2,LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2		
Light Source	Full-band balanced LED light source	Full-band balanced LED light source+UV	
Measurement and observation mode	Visual	Camera	
Calibration	Intelligent automatic calibration		
Software support	Andriod,iOS,Windows,WeChat applet		
Accuracy	Metrology Level I		
Observer Angles	2°, 10°		
Sphere Size	40mm		
Standards	CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7		
Spectroscopic method	Grating		
Sensor	Array sensor	Dual-row high-precision CMOS array sensor	
Wavelength Interval	10nm		
Wavelength Range	400-700nm		
Reflectance Range	0-200%		
Reflectivity resolution	0.01%		
Measurement time	Less than 2.5 seconds	Less than 2 seconds	
Interface	USB, Bluetooth		
Screen	IPS Full Color Screen,3.5 inches		
Battery capacity	Rechargeable, 8000 times continuous tests, 7.2V/3000mAh		
Light Source Lifetime	10 years, 1 million tests		
Language	Chinese and English		
Storage	Instrument: 100 standard samples and 10000 samples; APP: mass storage		

※Diffuse lighting/8° reception, including specular light/removing specular light  
 ※※ When a white tile is measured 30 times at 5-seconds interval with MAV  
 ※※※ BCRA Series II, average measurement of 12 tiles