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TS8450 Portable Desktop Spectrophotometer

Introduction

TS8450 is a 45/0 optical portable desktop spectrophotometer, with 256 pixels dual array CMOS image sensor, imported white board, and gives consideration to the speed of measurement and the convenience of operation. It features with repeatability ΔE^*_{ab} easily control within 0.02, and inner instrument errors ΔE^*_{ab} control within 0.15. This accuracy measurement makes it good to use in the lab color accurate analysis and transfer. The TS8450 portable desktop spectrophotometer is also good to measure the brightness factor and color coordinates of traffic signs, markings and reflective films. Including GB 2893 and GB/T 18833 standard colors, it can customize the rectangular tolerance of polygons manually.

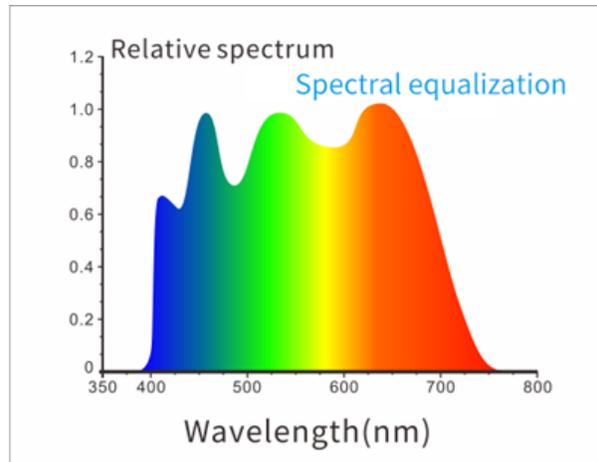
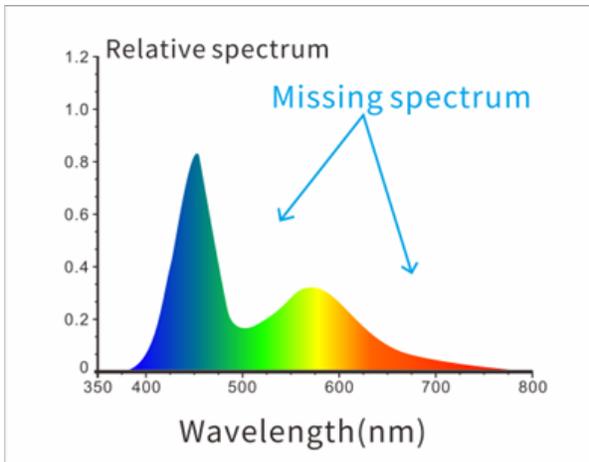
Application of TS8450 portable Desktop spectrophotometer:

TS8450 portable desktop spectrophotometer color measurement instrument is equipped with a single customized 18/8/4mm measurement diameter, used for accurate color measurement and quality control in plastic electronics, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries; It can be also used for fluorescence sample measurement. In addition, TS8450 portable desktop spectrophotometer is suitable for measuring the brightness factor and chromaticity coordinate of traffic road signs, marking lines and reflective film. It contains GB 2893 and GB/T 18833 standard colors and it can customize the rectangular tolerance of polygons manually.

Technical Advantages:

1. Adopt combination full spectrum LED light source and UV light source

Full band balanced LED light source ensures sufficient spectral distribution in visible light range, avoids the spectral loss of white LED in specific band, ensures the accuracy of instrument measurement speed and measurement results, and professional UV light source ensures more reliable UV testing.



2.A variety of color space, a variety of observation light sources

TS8450 portable desktop spectrophotometer color measurement instrument provides CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB, β xy,Munsell(C/2) color space, and D65,A,C,D50,F2(CWF),F7(DLF),F10(TPL5),F11(TL84),F12(TL83/U30) light sources, which can meet the special measurement requirements under different measurement conditions.

3.Calibration Certificate

Each TS8450 spectrophotometer has been verified and tested. After leaving the factory, each instrument is verified according to the measurement standards of authoritative verification departments, and the measurement data are traceable to the National Metrological Institute to ensure the authority of the instrument test data.

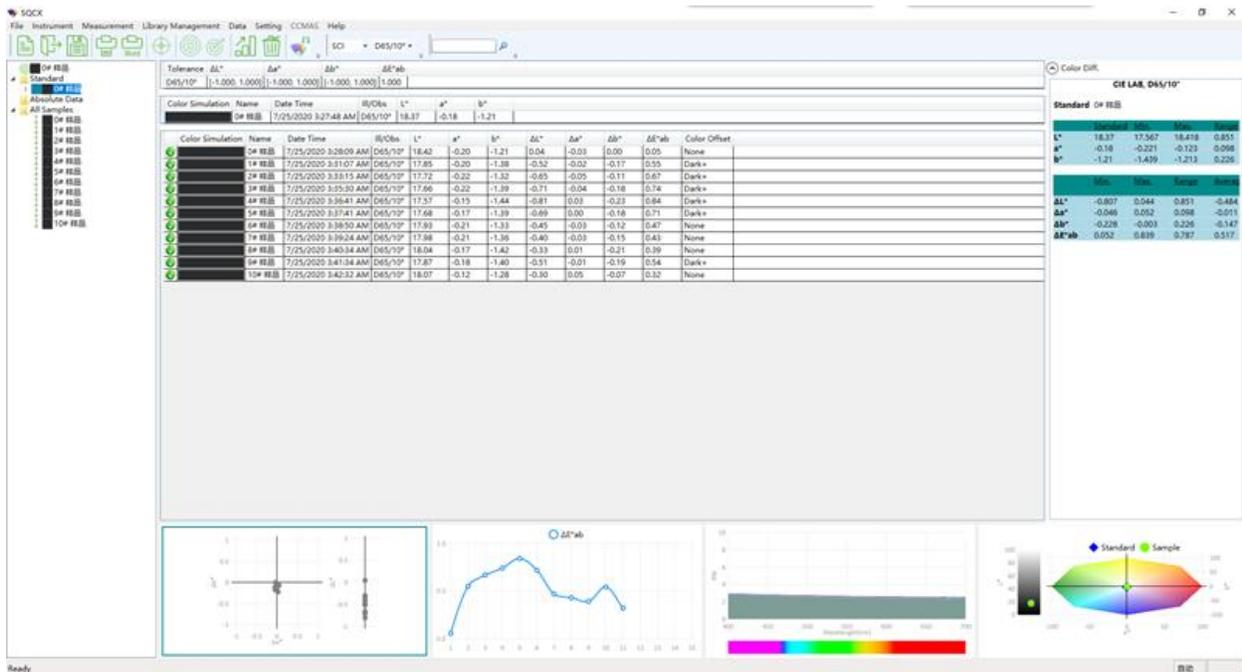
4.Industrial-grade HD touch screen, easy to use user interface

Using 7-inch industrial grade hd touch screen, smooth operation, the user interface is easy to use and it makes the operation to become comfortable and convenient.



5. Color management software

SQCX quality management software with TS8450 spectrophotometer is suitable for quality monitoring and color data management in various industries. Data the user's color management, compare color differences, generate test reports, provide multiple color space measurement data, and customize the customer's color management.



6. Optional Accessory

Micro printer, foot switch, rotating bracket can be freely selected according to the needs.



Technical Specification

Model	TS8450
Optical Geometry	45/0(45 ring-shaped illumination, 0 degree viewing angle)
	Comply to CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7
Characteristic	Enhanced version spectrophotometer, Customized single aperture $\Phi 18/8/4$ mm diameter aperture, used in laboratory accurate analysis and transmission;
	Used for accurate color measurement and quality control in plastic electronics, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries; It can be used for fluorescence sample measurement.
	It is used to measure the brightness factor and color coordinates of traffic signs, markings and reflective films. It contains GB 2893 and GB/T 18833 standard colors. It can customize the rectangular tolerance of polygons manually.
Integrating Sphere Size	$\Phi 40$ mm

Light Source	Combined full spectrum LED light source, UV light source
Spectrophotometric Mode	Flat Grating
Sensors	256 Image Element Double Array CMOS Image Sensor
Wavelength Range	400~700nm
Wavelength Interval	10nm
Semiband Width	10nm
Measured Reflectance Range	0~200%
Measuring Aperture	Customized single aperture,LAV:Φ18mm/Φ20mm;MAV:Φ8mm/Φ10mm;SAV:Φ4mm/Φ5mm
Specular Component	45/0
Color Space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,HunterLab,βxy,DIN Lab99 Munsell(C/2)
Color Difference Formula	$\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN}\Delta E99, \Delta E(\text{Hunter})$
Other Colorimetric Index	WI(ASTM E313,CIE/ISO,AATCC,Hunter),
	YI(ASTM D1925,ASTM 313),

	Metamerism Index MI,
	Staining Fastness, Color Fastness, Color Strength, Opacity
	8° Glossiness,555 tone classification
Observer Angle	2°/10°
Illuminant	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset
Measuring Time	About 1.8s
Repeatability	Chromaticity value: MAV/SCI, within ΔE^*_{ab} 0.02 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Inter-instrument Error	MAV/SCI, Within ΔE^*_{ab} 0.15 (Average for 12 BCRA Series II color tiles)
Measurement Mode	Single Measurement, Average Measurement(2-99times)
Locating Method	/
Dimension	L*W*H=370X240X260mm
Weight	About 7.8kg
Battery	AC 24V, 3A Power adapter power supply

Illuminant Life Span	5 years, more than 3 million times measurements
Display	7-inch TFT color LCD, Capacitive Touch Screen
Data Port	USB, Bluetooth ®5.0, trigger switch interface
Data Storage	Standard 1000 Pcs, Sample 30000 Pcs
Language	Simplified Chinese, English, Traditional Chinese
Operating Environment	0~40°C, 0~85%RH (no condensing), Altitude < 2000m
Storage Environment	-20~50°C, 0~85%RH (no condensing)
Standard Accessory	Power Adapter, USB Cable, User Guide, PC Software(Download from office website), White and Black Calibration Cavity, Protective Cover, Aperture (Optional Aperture)
Optional Accessory	Micro Printer, Foot Switch, Rotating Bracket
Notes	Technical parameters are only for reference, subject to the actual sale of the product

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