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Color measurement experts

Fat girl series

·Spectrocolorimeter PS2020&PS2010·

Rapid measurement

LED full spectrum

Double light path

High precision

ISO 9001 Certified CE NIM TÜV RoHS FC

Chinese high-tech enterprises

Model:PS2020&PS2010

Conform to the standard:
CIE No.15,GB/T 3978,GB 2893,
GB/T 18833,IS07724-1,
ASTM E1164,DIN5033 Teil7

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Portable design, sturdy construction
Anti-shaking, dustproof and knock

Product features

D/8 geometric optical structure,
Suitable for a variety of measurement conditions

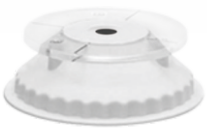
Full spectrum with high life and
low power consumption
The combined LED light source

Dual optical path systemThe SCI and
SCE spectra of samples can be
measured simultaneously

2°/10° standard observer Angle,
Multiple light source mode,
multiple color space
A variety of chroma parameters

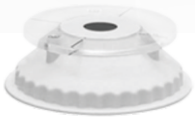
Imported white board is
not easy to dirty,Ensure
measurement accuracy

PS2020 Single caliber:
Φ4mm/Φ5mm(Flat measuring caliber)



4mm Flat

PS2010 Single caliber:
Φ8mm/Φ10mm(Flat measuring caliber)



8mm Flat

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Powerful

- Suitable for color difference quality control in plastic electronics, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries
- Support the spectral reflectance, WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), the same color spectrum index of Mt, touch color fastness, color fastness, strength, cover degree, 555 color classification, Munsell(C/2) (mobile APP implementation)

Efficient

- Ideal for laboratory and factory use
- Support USB cable computer transfer data
- The measurement is fast and accurate, and it only takes 1S to measure SCI and SCE simultaneously
- Color display, touch control, easy to operate

Durable

- Light weight, impact resistance, dirt resistance and storage resistance
- Operating temperature range 0~40℃, 0~85%RH(no condensation),Altitude: below 2000m
- Storage temperature range -20~50℃, 0~85%RH(no condensation)

Accuracy of reading

- Measurement accuracy 0.01
- The standard deviation of repeatability was within 0.04 of ΔE*ab
- Support multiple national and international standard measurement
- A variety of different caliber algorithms

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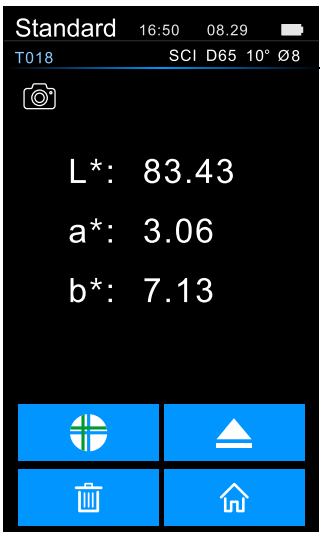
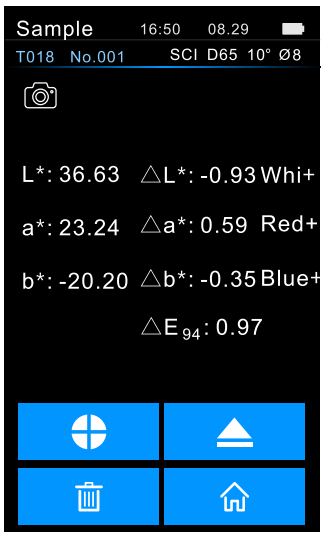
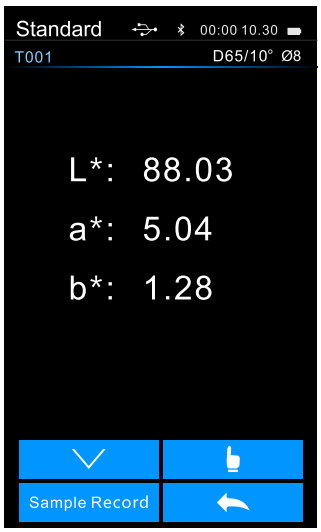
Main function



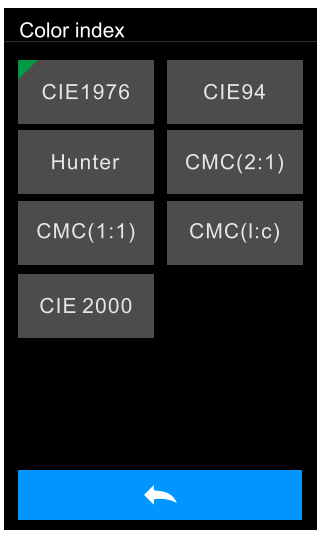
Standard Measure



Sample measurement and color difference



View Measurement record



Color index selection

Illumination setting

Color space selection

Powder test kit for colorimeter (purchased separately)
Powder test box has the characteristics of easy cleaning, no light overflow, suitable forAll kinds of powder, small particle measurement, avoid contaminating the sample at the same timeIt keeps the test bench clean.

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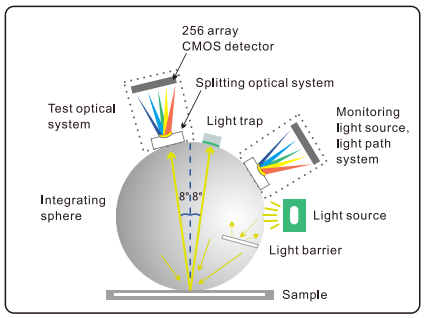
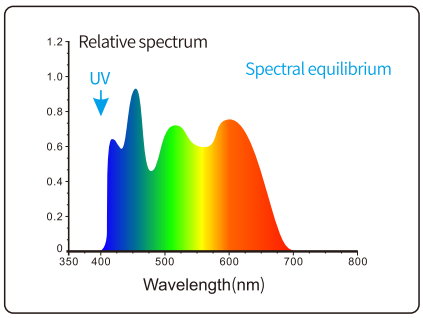
Product features



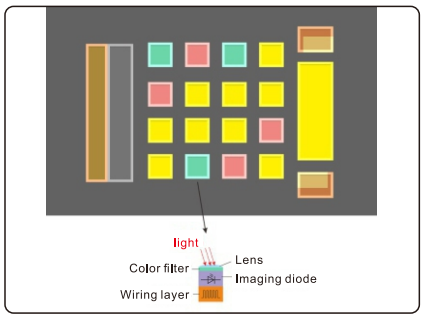
1.The international D/8 SCI/SCE synthesis technology was adopted

The spectrocolorimeter PS2020 adopts D/8 lighting observation conditions and SCI/SCE (including specular reflection/excluding specular reflection) synthesis technology with a wide range of international applications, which is applicable to all industries.



2.Balanced LED illuminant

The 400~700nm full band balanced LED light source is used as the instrument lighting source, which has sufficient spectral distribution in the visible light range, avoiding the spectral loss of white LED in specific bands, and the fluorescent materials can also be easily measured.

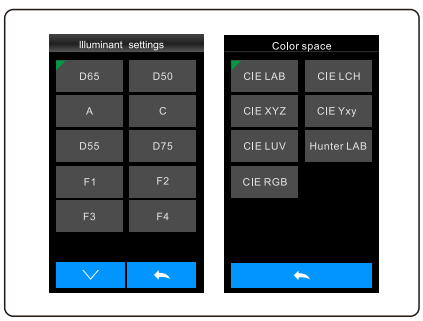


3.CMOS dual beam splitting sensor

High speed and high sensitivity CMOS dual beam splitter sensor makes color data processing more efficient and accurate.

4.Contact automatic whiteboard calibration

The spectrophotometer PS2020 is equipped with an intelligent calibration base,Contact automatic whiteboard calibration is available, professional standard Whiteboard reflectivity R% ≥ 95%, good surface uniformity,
It has high stability and can obtain repeated and accurate data.



5. Multiple color measurement spaces, multiple illumination source

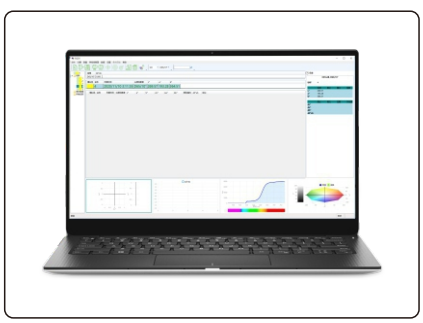
Support CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,βxy,DIN Lab99,Munsell(C/2) Color space and D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30) multiple illumination source,Meet different measurement requirements.

6. Ergonomic design and easy measurement

The fitted palm is suitable for continuous detection, which makes you fast and easy to use. An easy to measure device for automatic measurement is added, which is portable, fast, easy to measure and use.

7. Positioning of stability sheet

Through the cross stabilizer positioning, it can accurately judge whether the measured part of the object is the target center, which improves the measurement efficiency and accuracy.



8. Color management software

The quality management software SQCX 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.

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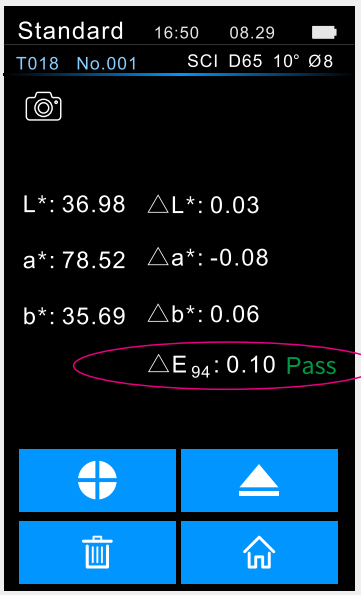
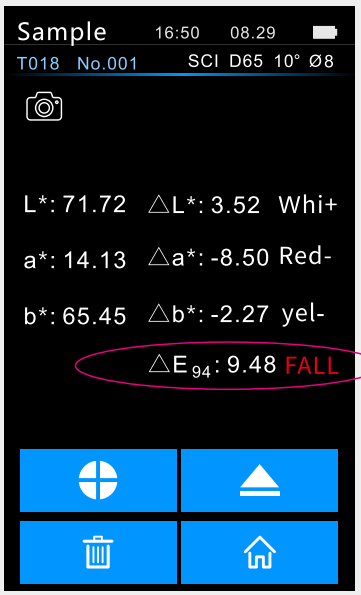
Result evaluation

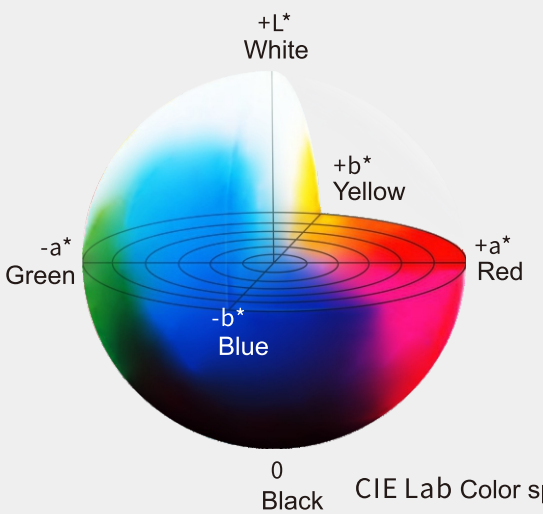




Under the ISO7724-1 and ASTM E1164 standards, the color values of the standard sample and sample obtained under the light source are set, and the system conducts rigorous formula calculation to obtain the color difference value and color tendency. Within the set tolerance range, the system will display "qualified"; when it exceeds the set range, the system will display "unqualified".

The difference of color difference is distinguished by NBS unit, which is derived based on the unit of color difference calculation formula established by Judd Hunter. When the value of NBS unit is larger, the color difference is more obvious, and vice versa.

NBS	Level
0.00-0.50	trave
0.50-1.50	slight
1.5-3	noticeable
3-6	appreciable
6+	much



CIE Lab Color space

Color space CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,HunterLab,βxy,DIN Lab99 choice,For example, common CIE Lab color space:

L * means black and white. The larger the value of L *, the higher the brightness;

A * represents red and green,+a * represents red, and - a * represents green;

B * represents yellow blue,+b * represents yellow, and - b * represents blue.

We can easily adjust the color through the color bias display.

* The above test results have been corrected in black and white after startup, and are within the validity period of correction.

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SQCX

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Connect devices for powerful function expansion

Create instant reports using SQCX

USB cable

Export

Send

Print

SQCX can connect the spectrophotometer through USB cable and Bluetooth (only for instruments supporting Bluetooth), control the instrument to measure, change the instrument configuration, and operate the instrument data. At the same time, it also greatly expands the functions of the instrument, supports a variety of surface color systems, light sources, more complex data management, color detection, report generation, etc., and is a powerful assistant for color quality management.

Connect the computer through the data cable and use the SQCX program to achieve:

1. Save the sample values measured on site directly to the mobile device.
2. View the color chart in real time during the test.
3. You can view historical data and personal saved data, and modify the name.
4. It can be transferred to the printer for printing and output.
5. The test data can be managed, transmitted and color matched by computer.

Parameter

Model	PS2020	PS2010
Optical Geometry	D/8 (diffuse lighting, receiving at 8 ° direction), SCI/SCE (including specular light/removing specular light)	
Standards Compliant	CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7	
LIlumination source	Combined full spectrum LED light source	
Integrating Sphere Size	Φ40mm	
Sensor	CMOS dual beam splitting sensor	
Spectral Range	400~700nm	
Measurement Aperture	Single：Φ4mm/Φ5mm(Flat aperture)	Single：Φ8mm/Φ10mm(Flat aperture)
Specular Component	SCI/SCE	
Color Spaces	CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,HunterLab,βxy,DIN Lab99	
Color Difference Formula	ΔE*ab,ΔE*uv,ΔE*94,ΔE*cmc(2:1),ΔE*cmc(1:1),ΔE*00, DINΔE99,ΔE(Hunter)	
Other Colorimetric Index	Reflectivity, WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), metamerism index Mt, color fastness, color fastness, strength, hiding degree, 555 tone classification, Munsell (C/2) (realized by mobile phone APP)	
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),U35,NBF,ID50,ID65	
Displayed Data	Spectrogram/data, sample chromaticity value, chromatic aberration value/graph, Pass/Reject result, color simulation, color bias	
Measurement Time	About 1s	
Repeatability	Chromaticity value: MAV/SCI, standard deviation value ΔE*ab within 0.04 (after preheating correction, the average value of the whiteboard is measured for 30 times at an interval of 5s) Spectral reflectance: MAV/SCI, standard deviation within 0.1% (400-700nm: within 0.2%)	
Inter-instrument agreement	MAV/SCI,ΔE*ab 0.4 within(BCRA series II 12 color plate measurement average)	
Display accuracy	0.01	
Reflectivity range	0~200%	
Reflectivity accuracy	0.01%	
Measurement Mode	Single Measurement,Average Measurement(2-99times)	
Locating Method	Stabilizer cross position	
Whiteboard verification method	Contact automatic whiteboard calibration	
Locating Method	Length X width X height =94X68X188mm	
Weight	270g (without calibration base)	
Battery	Lithium battery, 3.7V,3200mAh, 8000 times in 8 hours	
Life Lamp	1.2 million measurements in 10 years	
Screen	TFT true color 2.8inch, capacitive touch screen	
Interface	USB	
Data storage	500 records for standard sample and 5000 records for sample,supporting PC storage	
Software support	Windows	
Languages	Simplified Chinese, English,Traditional Chinese	
Standard Accessory	Power adapter, data cable, manual, quality management software (official website download), black and white correction box, protective cover, wrist strap, measuring caliber	
Optional Accessory	Micro printer, powder test box	

GUANGDONG THREENH TECHNOLOGY CO., LTD.

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