MULTI-ANGLE SPECTROPHOTOMETER

Powerful spectrophotometer

Measure multiple angles at the same time

MS

The MS3005 multi-angle spectrophotometer adopts an industrial-grade MCU and is equipped with 5 measurement angles. With the support of the superior optical measurement system, the MS3005 multi-angle spectrophotometer has excellent performance in multi-angle color difference measurement, even on curved surfaces. , It also has high measurement accuracy and stability.
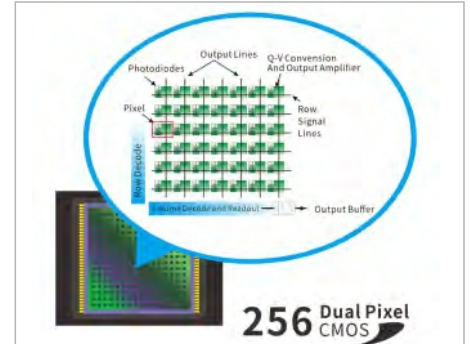
Product features
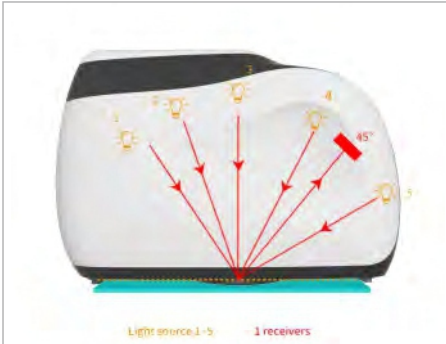
1、Multi-angle measurement
Adopt 5 illumination sources, 1 receivers to measure 5 measurement angles at the same time

2、More intuitive display
Touch screen can display all Angle measurement results, more intuitive view of the comprehensive data
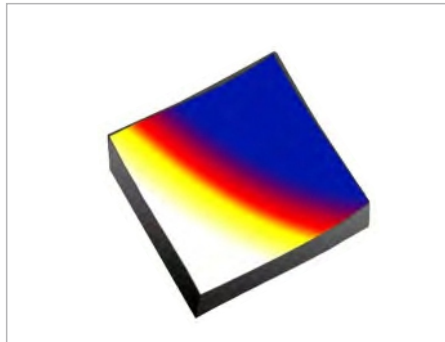

3、256 Image Element Double Array CMOS Image Sensor
Higher optical resolution ensures the measurement speed, accuracy, stability and consistency of the instrument
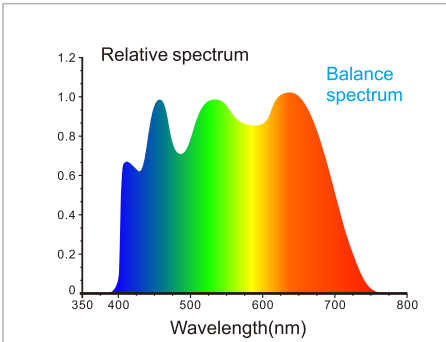
4、Blue light enhancement, full spectrum
Full spectrum illumination measurement is more professional to avoid spectrum loss

5、Concave grating spectrophotometric technology
Using concave grating spectrophotometric technology, with higher resolution, makes color measurement more accurate.

6、Professional-grade white board
Professional-grade white board, high hardness in the surface, stable optical performance

7、Higher quality
Industrial grade real-time processing MCU, supports WIFI, Bluetooth 5.0 transferring more stable and reliable

8、Ergonomics Novel and fashionable appearance design
The appearance of the instrument is designed for easy operation and can meet different holding habits
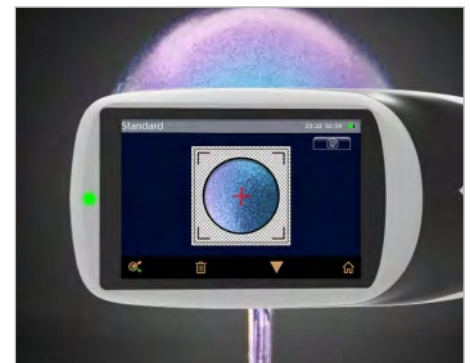
9、Color camera preview, can clearly observe the measured area
Built-in color camera positioning, can accurately judge the object measured position, and improve the measurement efficiency and accuracy

10、Multiple color measurement space, multiple observation light sources
Provide 6 color spaces, multiple observation light sources
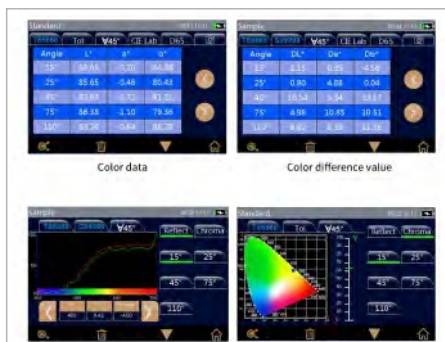
11、Easily analyze data
Multiple functions, the screen can display various data intuitively

12、Support PC software
Can be connected to a computer, use computer control to measure and manage data

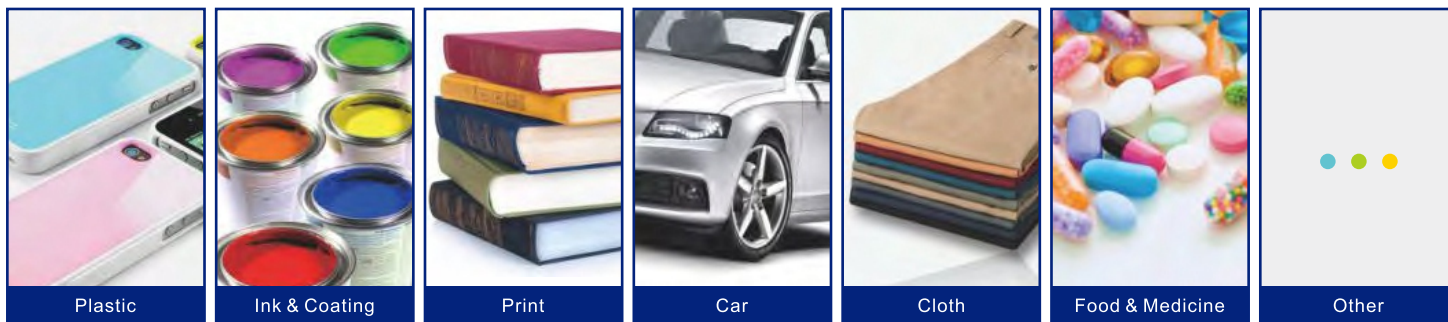| Plastic	Ink & Coating	Print	Car	Cloth	Food & Medicine	Other

MS3005   Product parameter

Measurement Geometry	5 measurement angles (5 illumination sources, 1 receivers)
Measuring angle	45°Receiver：45as15°,45as25°,45as45°,45as75°,45as110°
Conform to the standards	ASTM D2244,E308,E1164,E2194, E2539,DIN 5033,5036,6174,6175-1,6175-2;ISO 7724, 11664-4, SAE J1545
Application	Provide accurate and consistent color measurement for metallic, pearlescent and other complex special effect color products
Lighting source	Full spectrum LED light source with blue enhancement
Lamp Life	5 years, 3 million times measurements
Spectrophotometric Mode	Concave grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Wavelength Range	400nm-700nm
Wavelength Interval	10nm
Measurement Range	0~600%
Semiband Width	10nm
Measuring Aperture	Lighting Φ23mm/ sampling 9X12mm
Color Space	CIE LAB,XYZ,Yxy,LCh,βxy,DIN Lab99
Color Difference Formula	$\Delta E^*ab,\Delta E^*94,\Delta E^*cmc(2:1),\Delta E^*cmc(1:1),\Delta E^*00$, DIN$\Delta E99,\Delta E$ DIN6175
Other Colorimetric Index	Flop Index
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	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measuring Time	Approx. 1 second for one angle, Approx. 5 seconds for all angles
Repeatability	Spectral reflectance: Standard deviation within 0.08% Chromaticity value: ΔE^*ab 0.03 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Reproducibility	ΔE^*<0.10,avg on the gray tile of BCRA tile set ΔE^*<0.25,avg on the color BCRA tile set
Inter-instrument Error	0.2ΔE^*00 (avg on reference Series II BCRA tile set)
Effect Parameters	/
Effect Measurement	/
Effect Repeatability	/
Effect Reproducibility	/
Trigger mode	Pressure sensing trigger, key trigger, software trigger
Measuring Mode	Single measurement, average measurement (1-99), continuous measurement (1-99)
Locating Method	Color camera preview
Dimension	Length x width x height=195X83X128mm
Weight	about 1Kg
Power	lithium-ion battery, 3.7V,5000mAh
Display screen	3.5-inch TFT color LCD, Capacitive Touch Screen
Interface	USB, Bluetooth
Data Storage	Standard 1000 Pcs, Sample 4000 Pcs
Language	Simplified Chinese, English, Traditional Chinese
Operating Environment	10°C to 50°C, humidity does not exceed 85%, no condensation
Storage Environment	-20°C to 50°C, humidity does not exceed 85%, no condensation
Calibration	Built-in white board parameters, external white board, black light trap
Calibration interval	4 hours, 8 hours, 24 hours, Startup calibration
Standard accessories	Power Adapter, USB Cable, User Guide,PC Software(download from the official website), Calibration Board, black light trap, Protective cap, wristband
Optional accessories	Micro Printer