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**CAR PAINT  
INSPECTION**

Metal color  
Pearlescent color  
Special color



# MULTI-ANGLE SPECTROPHOTOMETER

# MS



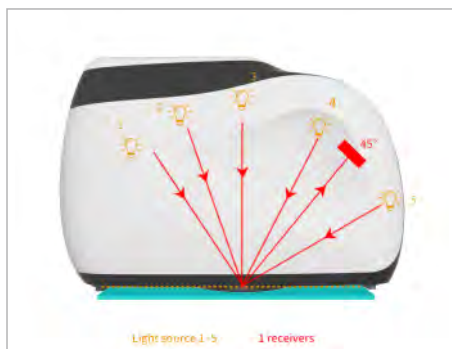
Powerful spectrophotometer

Measure multiple angles at the same time

ISO 9001  
Certified

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



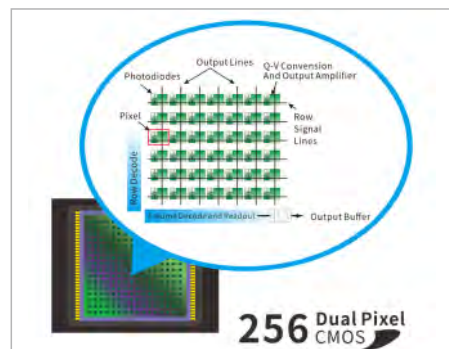
## 1, Multi-angle measurement

Adopt 5 illumination sources, 1 receivers to measure 5 measurement angles at the same time



## 2, More intuitive display

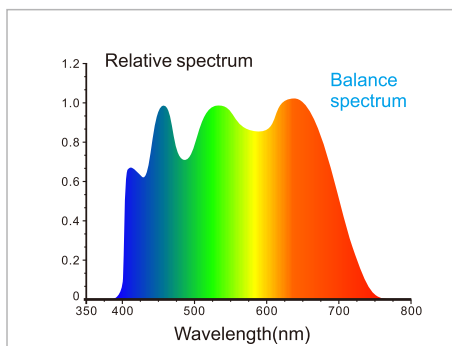
Touch screen can display all Angle measurement results, more intuitive view of the comprehensive data



**256 Dual Pixel CMOS**

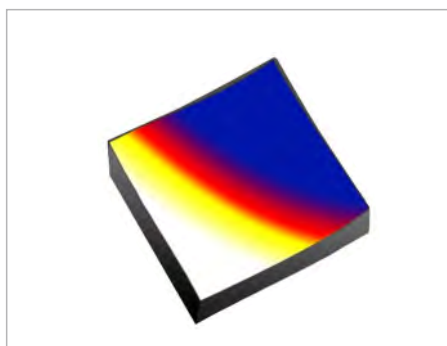
## 3, 256 Image Element Double Array CMOS Image Sensor

Higher 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



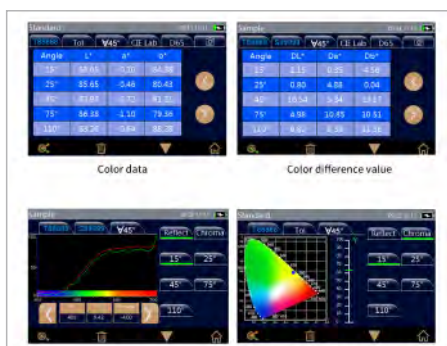
## 9, Color camera preview, can clearly observe the measured area

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

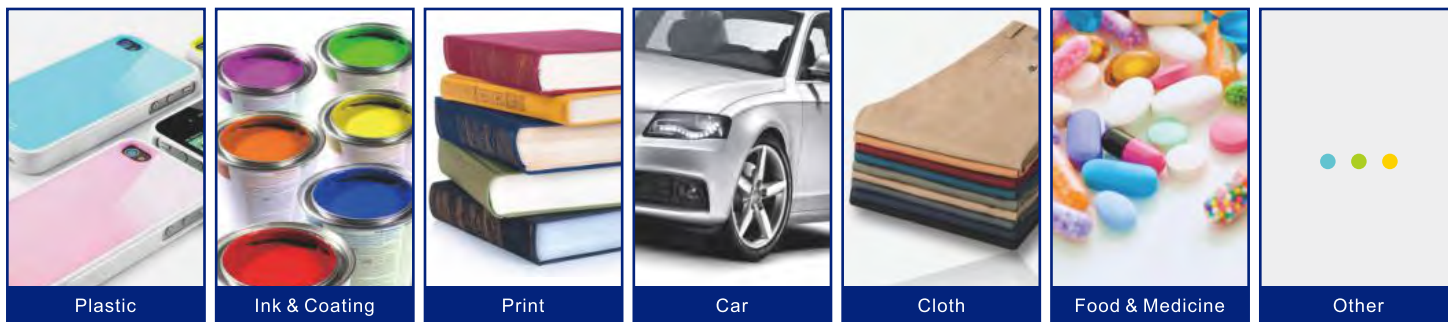
Multiple functions, the screen can display various data intuitively



## 12, Support PC software

Can be connected to a computer, use computer control to measure and manage data

# APPLICATION INDUSTRY



## MS3005 Product parameter

<b>Measurement Geometry</b>	5 measurement angles (5 illumination sources, 1 receivers)
<b>Measuring angle</b>	45°Receiver: 45as15°, 45as25°, 45as45°, 45as75°, 45as110°
<b>Conform to the standards</b>	ASTM D2244, E308, E1164, E2194, E2539, DIN 5033, 5036, 6174, 6175-1, 6175-2; ISO 7724, 11664-4, SAE J1545
<b>Application</b>	Provide accurate and consistent color measurement for metallic, pearlescent and other complex special effect color products
<b>Lighting source</b>	Full spectrum LED light source with blue enhancement
<b>Lamp Life</b>	5 years, 3 million times measurements
<b>Spectrophotometric Mode</b>	Concave grating
<b>Sensor</b>	256 Image Element Double Array CMOS Image Sensor
<b>Wavelength Range</b>	400nm-700nm
<b>Wavelength Interval</b>	10nm
<b>Measurement Range</b>	0~600%
<b>Semiband Width</b>	10nm
<b>Measuring Aperture</b>	Φ12mm
<b>Color Space</b>	CIE LAB, XYZ, Yxy, LCh, βxy, DIN Lab99
<b>Color Difference Formula</b>	$\Delta E^*ab, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN}\Delta E99, \Delta E \text{ DIN}6175$
<b>Other Colorimetric Index</b>	Flop Index
<b>Observer Angle</b>	2°/10°
<b>Illuminant</b>	D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30)
<b>Displayed</b>	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
<b>Measuring Time</b>	Approx. 1 second for one angle, Approx. 5 seconds for all angles
<b>Repeatability</b>	Spectral reflectance: Standard deviation within 0.08% Chromaticity value: $\Delta E^*ab$ 0.03 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
<b>Reproducibility</b>	$\Delta E^* < 0.10$ , avg on the gray tile of BCRA tile set $\Delta E^* < 0.25$ , avg on the color BCRA tile set
<b>Inter-instrument Error</b>	$0.2\Delta E^*00$ (avg on reference Series II BCRA tile set)
<b>Effect Parameters</b>	/
<b>Effect Measurement</b>	/
<b>Effect Repeatability</b>	/
<b>Effect Reproducibility</b>	/
<b>Trigger mode</b>	Pressure sensing trigger, key trigger, software trigger
<b>Measuring Mode</b>	Single measurement, average measurement (1-99), continuous measurement (1-99)
<b>Locating Method</b>	Color camera preview
<b>Dimension</b>	Length x width x height=195X83X128mm
<b>Weight</b>	about 1Kg
<b>Power</b>	lithium-ion battery, 3.7V, 3200mAh, Continuous test 6000 times within 8 hours of full charge
<b>Display screen</b>	3.5-inch TFT color LCD, Capacitive Touch Screen
<b>Interface</b>	USB, Bluetooth
<b>Data Storage</b>	Standard 1000 Pcs, Sample 4000 Pcs
<b>Language</b>	Simplified Chinese, English, Traditional Chinese
<b>Operating Environment</b>	10°C to 50°C, humidity does not exceed 85%, no condensation
<b>Storage Environment</b>	-20°C to 50°C, humidity does not exceed 85%, no condensation
<b>Calibration</b>	Built-in white board parameters, external white board, black light trap
<b>Calibration interval</b>	4 hours, 8 hours, 24 hours, Startup calibration
<b>Standard accessories</b>	Power Adapter, USB Cable, User Guide, PC Software (download from the official website), Calibration Board, black light trap, Protective cap, wristband
<b>Optional accessories</b>	Micro Printer

SHENZHEN THREE NH TECHNOLOGY CO., LTD.



Spectrophotometers



Colorimeters



Haze Meters



Gloss Meters



Test Charts



Light Booths

## ★ CONTACT US

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