



3nh Global

TS7036

SPECTROCOLORIMETER



Flat Grating



3.5in color touch screen



400-700nm measuring range



INTRODUCTION

TS7036 is a new portable spectrophotometer with 3nh own core research and development technology. It is the high level colorimeter in spectral architecture. In addition to ensure accurate relative ΔE at the same time, it is also to ensure the accuracy of the absolute value of L, A and B for a long time. And it can pass the international standards and national standards of calibration any time any where.



SHENZHEN THREEENH TECHNOLOGY CO., LTD.



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TS7036

APPLICATION INDUSTRY

With 8mm flat and tip apertures, TS7030 spectroradiometer is widely suitable for the industry production and quality inspection of accurate color difference control like plastic electronics, paint and ink, textile printing and dyeing, printing, ceramic industry etc.



Food stuff



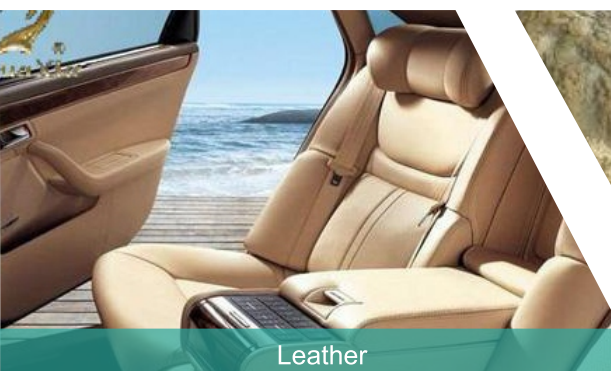
Automobile



Plastics



Laboratory



Leather



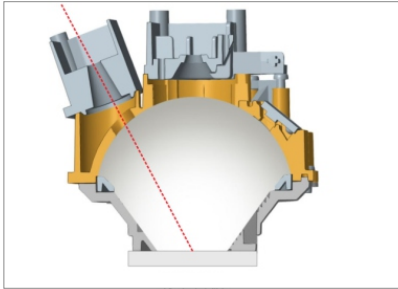
Paint

Product Features

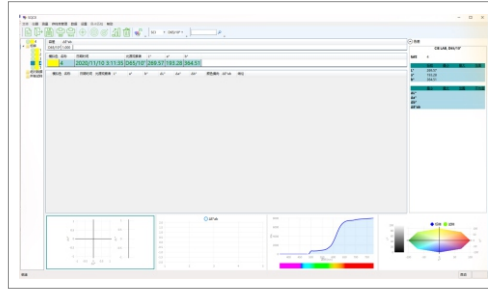
1. Φ 4/8 mm double measuring diameter, 10 ° angle observer can meet most of the industry customer requirements;
2. Combination of full-spectrum LED light source, flat grating and true color capacitive touch screen, with a high starting point;
3. Silicon photodiode array (32 groups with double rows) sensor, display precision 0.01, good repeatability;
4. The light source life is more than 3 million measurements in 5 years, and the lithium battery takes 6,000 measurements within 8 hours, which can be recharged repeatedly and has a long battery life;
5. Quick data search, analysis and comparison with 1000 standard data storage samples and 30000 samples.

TS7036 SPECTROCOLORIMETER

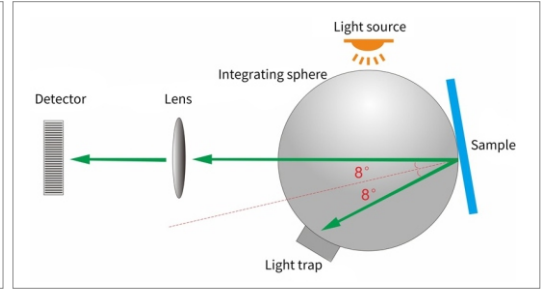
PRODUCT ADVANTAGES



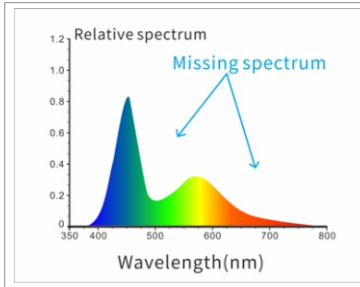
ETC real-time calibration technology



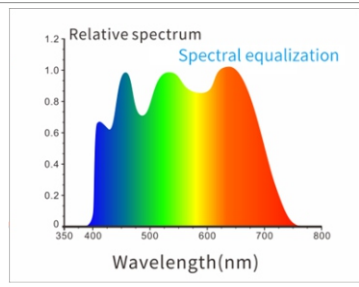
Color management software



Adopt d/8 SCI/SCE Synthesis technology



Adopt full waveband balanced LED light source



Camera locating

Technical Advantages

1. Adopt international common use d/8 SCI/SCE Synthesis technology

TS7036 spectrophotometer adopts D/8(diffused illumination, 8-degree viewing angle) which is widely applicable in the world, and SCI/SCE (specular component included/specular component excluded) Synthesis technology. It is suitable for color management and quality control in various industries such as color matching and coating, textile, plastic, food, building materials, cosmetics, etc.

2. Adopt full waveband balanced LED light source

The full waveband balanced LED light source ensures sufficient spectral distribution in the visible light range, avoids the spectral loss of white LED in specific waveband, and ensures the measurement speed and accuracy of the measurement results.

3. Silicon photodiode array sensor (32 groups with double rows)

The dual-32 array sensor with larger area has strong light but not saturate, higher sensitivity of low light and wider spectral response range, which ensures the measurement speed, accuracy, stability and consistency of the instrument.

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

TS7036 spectrophotometer provides CIE LAB color, XYZ, Yxy, LCh, CIE LUV, s - RGB, beta xy, DIN Lab99 Munsell color space (C / 2), and D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4 and F5, F6 and F7 (DLF), F8, F9, F10 (TPL5) and F11 (TL84), F12 (TL83 / U30) a variety of light source, to meet the demand of special measurement under different measurement conditions.

5. Ergonomic design and easy measuring device

TS7036 spectrophotometer has a beautiful, smooth shape and comfortable grip, in line with the structure design of human mechanics, fit the palm for continuous testing, so that you can use it quickly and easily. An automatic measuring device is added, which is portable, quick and easy to measure.

6. Calibration Certificate

Each TS7036 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.

7. ETC real-time calibration technology

TS7036 spectrophotometer adopts imported standard white board, which is resistant to yellowing and dirt infiltration and can be wiped, ensuring the long-term accuracy of the instrument. An innovative ETC real-time Calibration technique is also used, with a built-in standard white board into the optical system, which is reliably accurate and repeatable for each Test.

8. Camera locating can clearly observe the measured area

TS7036 spectrophotometer has a built-in camera for positioning, which can accurately determine whether the measured part of the object is the center of the target through real-time viewing by the camera, thus improving the measurement efficiency and accuracy.

9. Color management software

SQCX quality management software with TS7036 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.

SPECIFICATION PARAMETER

TS7036 Spectrocolorimeter

Model: TS7036

Optical Geometry: D/8(diffused illumination, 8-degree viewing angle),SCI/SCE Mode,Comply to CIE No.15, GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7

Characteristic: double apertures, more adaptability; 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

Integrating Sphere Size: Φ 40mm

Light Source: Combined full spectrum LED light source, UV light source

Spectrophotometric Mode: Flat Grating

Senso: Silicon photodiode array (double row 32 groups)

Wavelength Range: 400 ~ 700nm

Wavelength Interval: 10nm

Semiband Width: 10nm

Measured Reflectance Range: L:0~120; reflectivity:0~200%

Measuring Aperture: Dual Apertures: MAV: Φ 8mm/ Φ 10mm;SAV: Φ 4mm/ Φ 5mm

Specular Component: SCI/SCE

Color Space: CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB, β xy,DIN Lab9,DIN Lab99 Munsell(C/2)

Color Difference Formula: $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN} \Delta E99$

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,Color Card Search

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

Displayed Accuracy: 0.01

Measuring Time: About 1.5s (Measure SCI & SCE about 3.2s)

Repeatability: Chromaticity value: MAV/SCI, within ΔE^*ab 0.05 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

Inter-instrument Error: MAV/SCI, Within ΔE^*ab 0.3(Average for 12 BCRA Series II color tiles)

Measurement Mode: Single Measurement, Average Measurement(2-99times)

Locating Method: Camera Locating,stabilizer cross position

Dimension: L*W*H=81X71X214mm

Weight: About 460g

Battery: Li-ion battery, 6000 measurements within 8 hours

Illuminant Life Span: 5 years, more than 3 million times measurements

Display: 3.5-inch TFT color LCD, Capacitive Touch Screen

Data Port: USB,Bluetooth 5.0

Data Storage: Standard 1000 Pcs, Sample 30000 Pcs(One data is able to include SCI/SCE)

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, Wrist strap, 8mm flat aperture, 8mm tip aperture, 4mm flat aperture, 4mm tip aperture

Optional Accessory: USB Micro Printer, Powder Test Box,Bluetooth Micro Printer

Notes: Technical parameters are only for reference, subject to the actual sale of the product



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