



Flat Grating



3.5in color touch screen



400-700nm measuring range



# TS7010

## ECONOMICAL SPECTROCOLORIMETER

## INTRODUCTION

TS7010 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  $\Delta E$  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.



Import White Calibration Board

## APPLICATION INDUSTRY

With 8mm aperture, TS7010 spectrophotometer 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.



Automobile

Leather

Plastics

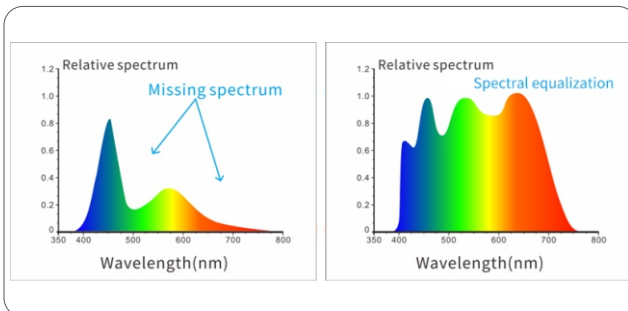
Paint

Food stuff

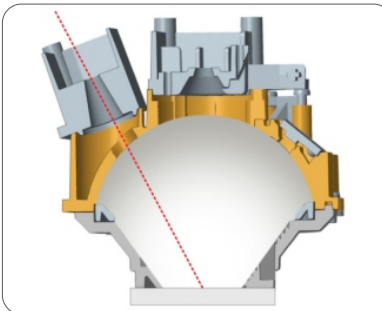
Laboratory

Others

## PRODUCT ADVANTAGES



Full band balanced LED light source



ETC real-time calibration technology



Import White Calibration Board

### 1. Ergonomic design and easy measuring device

TS7010 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.

### 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 (24 groups with double rows)

The dual-24 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. Calibration Certificate

Each TS7010 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.

### 5. ETC real-time calibration technology

TS7010 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.

# SPECIFICATION PARAMETER

## TS7010 Spectrocolorimeter

**Model:** TS7010

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

**Characteristic:**  $\Phi$ 8mm apertures, 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:**  $\Phi$ 40mm

**Light Source:** Combined full spectrum LED light source

**Spectrophotometric Mode:** Flat Grating

**Senso:** Silicon photodiode array (double row 24 groups)

**Wavelength Range:** 400~700nm

**Semiband Width:** 10nm

**Measured Reflectance Range:** L:0~100; reflectivity:The reflectivity can be measured at 1 specific wavelength specified by the user (default: 550nm)

**Measuring Aperture:**  $\Phi$ 8mm

**Specular Component:** SCI

**Color Space:** CIE LAB,XYZ,Yxy,LCh

**Color Difference Formula:**  $\Delta E^*_{ab}$ ,  $\Delta E^*_{00}$

**Observer Angle:** 10°

**Illuminant:** D65,A,F2(CWF)

**Displayed Data:** Reflectivity (the user specifies the reflectivity at 1 specific wavelength), Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset

**Displayed Accuracy:** 0.1

**Measuring Time:** About 1.5s

**Repeatability:** Chromaticity value: MAV/SCI, within  $\Delta E^*_{ab}$  0.1 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

**Inter-instrument Error:** MAV/SCI, Within  $\Delta E^*_{ab}$  0.4(Average for 12 BCRA Series II color tiles)

**Measurement Mode:** Single Measurement, Average Measurement(2~99times)

**Locating Method:** 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

**Data Storage:** Standard 500 Pcs, Sample 10000 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, White and Black Calibration Cavity, Protective Cover, Wrist strap, 8mm flat aperture

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

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



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