TS7010 Portable Spectrocolorimeter

Introduction:

TS7010 is a new portable spectrocolorimeter 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. Using built-in silicon photodiode array (double row group 24) sensors, imported whiteboard, repeatability ΔE * ab is easily controlled within 0.1. The measurement speed and convenience of the operation makes it easy to use. TS7010 spectrocolorimeter can all quickly judge color difference measurement when connecting to PC software or not. With powerful functions and 8 mm aperture, it meets 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.

Application

With 8mm aperture, TS7010 spectroclorimeter 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.

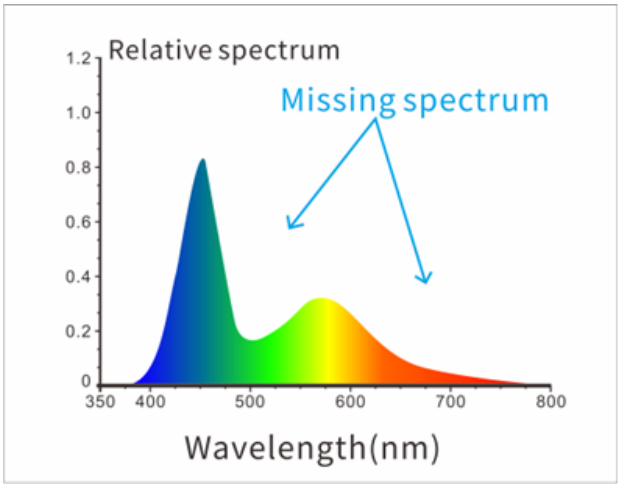
Technical Advantages

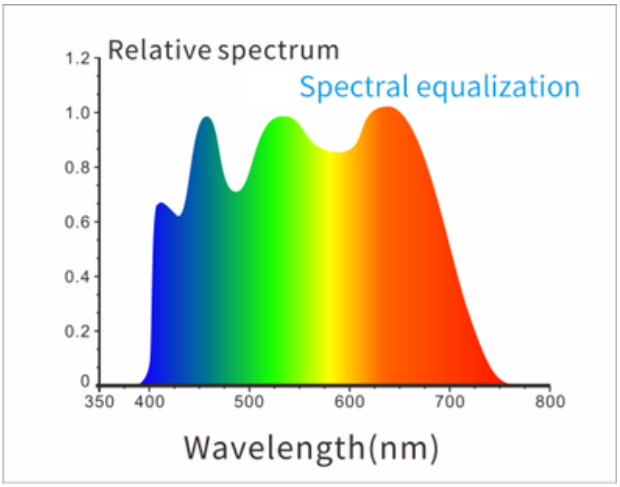
1.Ergonomic design and easy measuring device

TS7010 spectrocolorimeter 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)

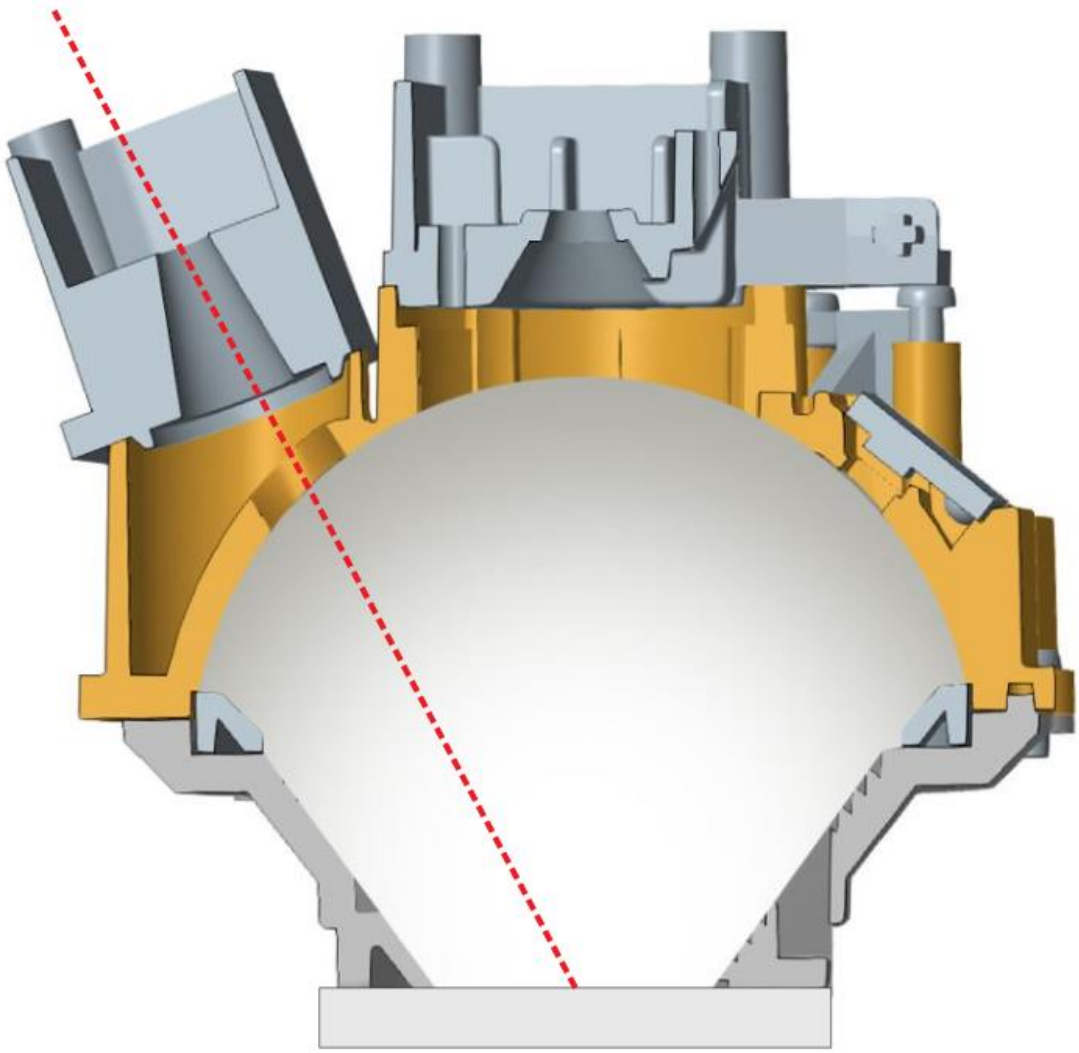
The dual-24 array sensor with larger area has strong light but not saturate, higher sensitivity of low light and wider spectral response range, which ensures the measurement speed, accuracy, stability and consistency of the instrument.

4. Calirbation Certificate

Each TS7010 spectrocolorimeter 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 Metrotechnical 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 yelloping 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.



Technical Specification

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	Φ8mm 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	Φ40mm
Light Source	Combined full spectrum LED light source
Spectrophotometric Mode	Flat Grating
Senso	Silicon photodiode array (double row 24 groups)
Wavelength Range	400～700nm
Wavelength Interval	/
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	Φ8mm
Specular Component	SCI
Color Space	CIE LAB,XYZ,Yxy,LCh
Color Difference Formula	ΔE*ab,ΔE*00
Other Colorimetric Index	/
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 ΔE*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 ΔE*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℃, 0~85%RH (no condensing), Altitude < 2000m
Storage Environment	-20~50℃, 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