



TS7020 Portable Spectrocolorimeter



Introduction:

TS7020 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. Using built-in silicon photodiode array (double row group 24) sensors, imported whiteboard, repeatability ΔE^*_{ab} is easily controlled within 0.08. The measurement speed and convenience of the operation makes it easy to use. TS7020 spectrophotometer 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.

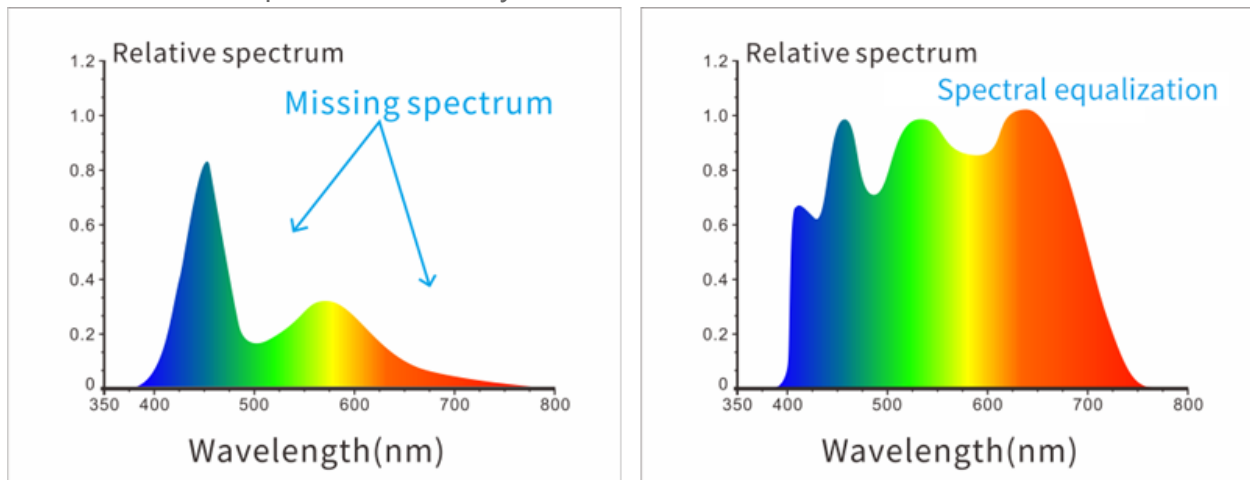
Application

With 8mm aperture, TS7020 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.

Technical Advantages

1. Adopt fullwaveband 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.



2. Silicon photodiode array sensor (24groups 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.

3. Ergonomic design and easy measuring device

TS7020 spectroradiometer 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.

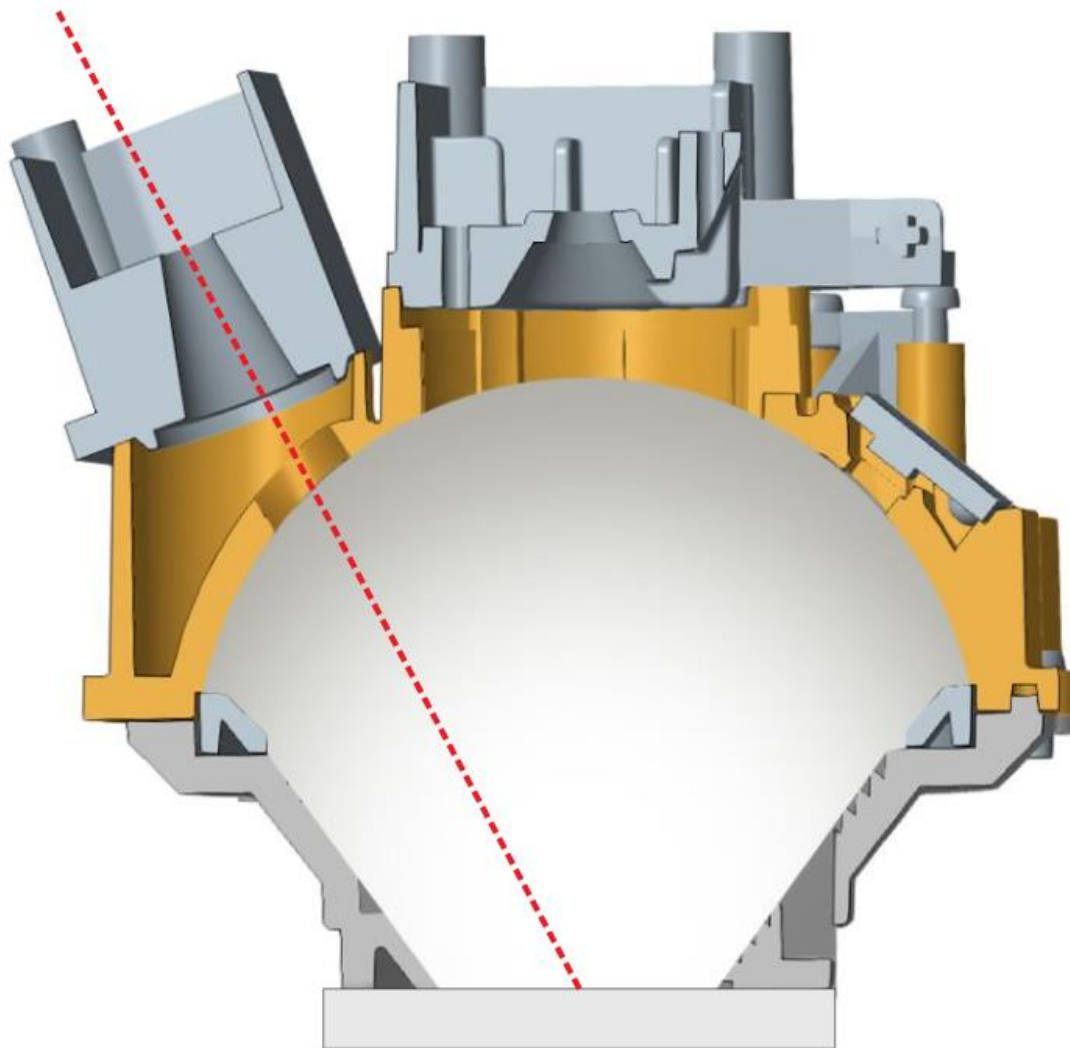
4. Calibration Certificate

Each TS7020 spectroradiometer 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

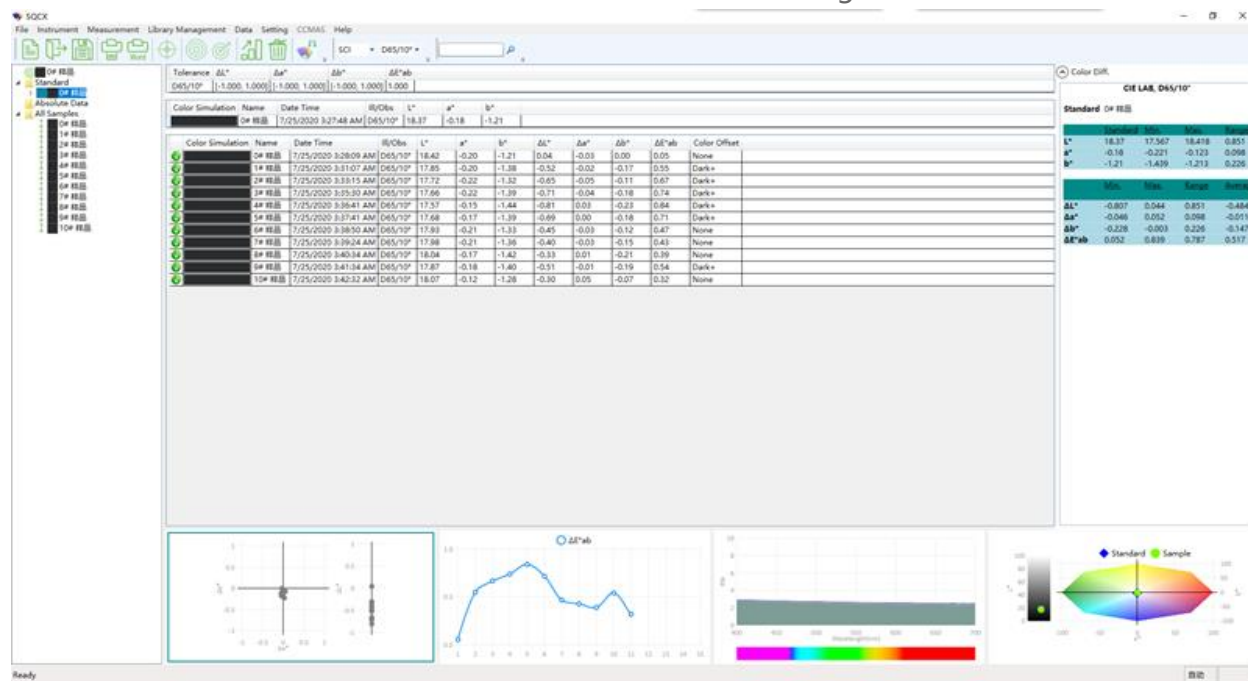
TS7020 spectrophotometer adopts imported standard white board, which is resistant to yellowing and dirt infiltration and can be wiped, ensuring the long-term accuracy of the instrument. An innovative ETC real-time Calibration technique is also used, with a built-in standard white board into the optical system, which is reliably accurate and repeatable for each Test.



Standard whiteboard

6. Color management software

SQCX quality management software with TS7020 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.



Technical Specification

Model	TS7020
Optical Geometry	D/8(diffused illumination, 8-degree viewing angle)
	SCI Mode
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 3 specific wavelengths specified by the user (default: 440nm, 550nm, 600nm)
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 3 specific wavelengths), Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset
Displayed Accuracy	Display 0.1, storage 0.01
Measuring Time	About 1.5s
Repeatability	Chromaticity value: MAV/SCI, within ΔE^*_{ab} 0.08 (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°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
Optional Accessory	USB Micro Printer, Powder Test Box
Notes	Technical parameters are onlyfor reference, subject to the actual sale of the product