MORE THAN JUST COLOR DIFFERENCE, PROVIDING A COMPREHENSIVE COLOR SOLUTION

TS-26C Spectrophotometer

The TS-26C spectrophotometer is an enhanced laboratory-grade spectrophotometer designed for high-precision color analysis and communication applications. Featuring the internationally standard 45/0 optical geometry and a built-in high-performance optical system, it achieves fast and accurate measurements within the 360~780 nm spectral range. Equipped with seven measurement apertures, it can flexibly adapt to samples of different sizes and shapes. It is capable of measuring fluorescent samples and meets the requirements for measuring the luminance factor and chromaticity coordinates of traffic signs, markings, and reflective films. It includes standard colors from GB 2893 and GB/T 18833 and supports manual customization of polygonal tolerance limits, providing a professional solution for color management across various industries.

Own the core tech: Top performance, budget price.

ISO9001 CE RoHS

PRODUCT FEATURES

I. High-Precision Optical Design for Measurement Accuracy

Combined LED + UV Light Source

Employs a combined full-spectrum LED + UV light source to ensure uniform spectral distribution across the entire range from visible to ultraviolet light, eliminating errors caused by spectral gaps and significantly improving measurement reliability. It can accurately capture the color characteristics of fluorescent samples, enabling specialized measurement of fluorescent samples.

Illumination Geometry

Equipped with a dedicated UV light source and combined with a full-spectrum LED light source, it supports color analysis of materials containing fluorescent agents, solving color measurement challenges for fluorescent samples in industries like plastics and textiles.

Dual-Array Silicon Photodiode Sensor

Features a larger-area dual-array (40 elements) silicon photodiode sensor, effectively addressing issues of strong light saturation and weak light detection, ensuring the instrument's measurement speed and accuracy.

II. High-Precision Color Control, Inter-Instrument Agreement ≤ 0.15

Repeatability: Within ΔE*ab 0.018, the instrument's repeatability precision reaches a level unparalleled by similar products.

Inter-Instrument Agreement: Within ΔE*ab 0.15, ensuring highly consistent measurement results across multiple devices.

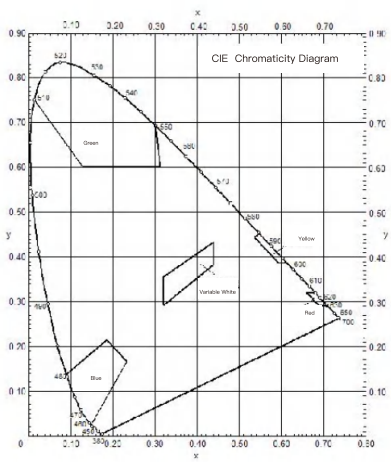
III. Dedicated Measurement Solution for Traffic Signs / Markings / Reflective Film

Supports the measurement of luminance factor and chromaticity coordinates for traffic signs, markings, and reflective films, catering to the stringent requirements of the traffic industry for color consistency in road signage.

Built-in standard colors from GB 2893 (Safety colors) and GB/T 18833 (Road traffic reflective sheeting), requiring no additional import. Supports manual customization of polygonal tolerance limits, enhancing industry application efficiency.

Supports measurement of reflective film

Light Color	Boundary Equation		Critical Point Coordinates
Variable White	Yellow Boundary	x=0.440	x=0.320, y=0.356 x=0.440, y=0.433 x=0.440, y=0.383 x=0.320, y=0.292
	Blue Boundary	x=0.320	
	Green Boundary	y=0.150+0.643x	
	Purple Boundary	y=0.050+0.757x	
Green	Blue Boundary	y=0.768-1.306x	x=0.014, y=0.750 x=0.129, y=0.600 x=0.312, y=0.600 x=0.302, y=0.692
	White Boundary	y=0.600	
	Yellow Boundary	y=3.470-9.200x	
Blue	Green Boundary	y=0.805x+0.065	x=0.090, y=0.137 x=0.186, y=0.214 x=0.233, y=0.167 x=0.148, y=0.025
	White Boundary	y=0.400-x	
	Purple Boundary	y=1.668x-0.222	
Yellow	Green Boundary	y=0.727x+0.054	x=0.547, y=0.452 x=0.536, y=0.444 x=0.593, y=0.387 x=0.613, y=0.387
	White Boundary	y=0.980-x	
	Red Boundary	y=0.387	
Red	Yellow Boundary	y=0.320	x=0.680, y=0.320 x=0.660, y=0.320 x=0.690, y=0.290 x=0.710, y=0.290
	White Boundary	y=0.980-x	
	Purple Boundary	y=0.290	



IV. Comprehensive Color Analysis Capabilities

Supports 10 Color Spaces

Includes CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, etc., meeting color definition and analysis requirements across different industries.

Supports 9 Color Difference Formulas

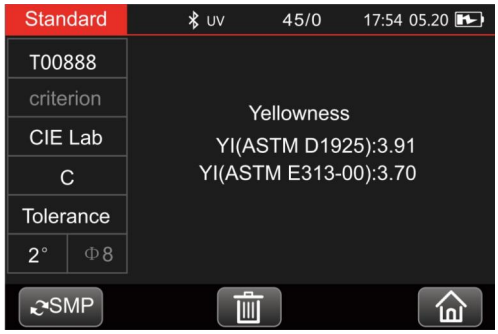
Including ΔEab, ΔE*uv, ΔE94, ΔEcmc (2:1), ΔE00, etc., enabling precise quantification of color differences and adapting to color difference judgment standards in various scenarios.

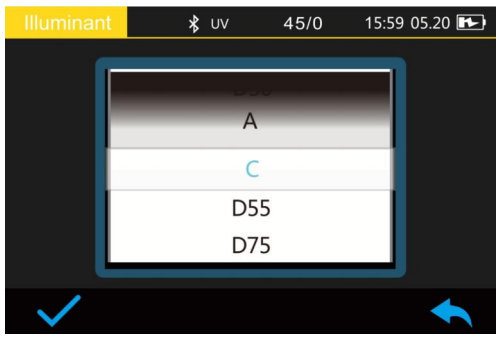
Rich Color Indices

Such as Whiteness Index (WI), Yellowness Index (YI), Metamerism Index (MI), Blackness, Color Density (CMYK). Also supports measurements for staining fastness, color change fastness, tinting strength, and hiding power, covering full-link color evaluation needs.

Provides 41 Observer Light Sources

(Including D65, A, C, D50, etc., some achievable via PC software) and 2°/10° dual observer angles, allowing simulation of visual effects under different environments and meeting cross-scenario color communication requirements.





V. Seven Apertures for Precise Adaptation, Covering Full-Size Samples

Provides seven measurement apertures (12mm, 11mm, 10mm, 6mm, 5mm, 3mm, and a 1×3mm rectangular aperture), allowing flexible switching based on sample size (e.g., small electronic components, large-area road signs) to suit diverse measurement scenarios.

V. Seven Apertures for Precise Adaptation, Covering Full-Size Samples

1s
Single Measurement

3.5 -inch
TFT Touch Screen

1000
Standard Data Storage

30000
Sample Data Storage

1 **Portable Operation:** Equipped with a 3.5-inch TFT true-color capacitive touch screen, it intuitively displays spectral graphs/data, colorimetric values, color difference values/comparison charts, and pass/fail results, ensuring ease of operation.

2 **High Measurement Efficiency:** A single measurement takes only approximately 1 second. It supports storage of up to 1,000 standard samples and 30,000 test samples, meeting long-term data traceability requirements for large quantities of samples.

3

USB + Bluetooth Dual Interface: Supports USB + Bluetooth dual interfaces for connection to computers and printers. Compatible with Android/iOS/Windows systems and WeChat Mini Program, enabling more flexible data transfer and report generation.

a. Connects to PC management software for computer-side data processing.

The host computer software, SQCX, can connect to the instrument via USB cable or Bluetooth to control measurements, modify instrument settings, and manage instrument data. Additionally, it significantly expands the instrument's functionality, enabling complex data management, color inspection, and report generation, making it a powerful assistant for color quality control.

data printing Compare color differences and generate test reports. Data can be printed by connecting to a printer via a PC.

Analysis Management Perform operations such as analysis, copying, deletion, modification, naming, and saving on the measured data.

Analysis Sharing Share and transfer generated test reports through a connected computer for quick color information exchange and accelerated production time.

b. Supports mobile phone color measurement and color matching software functions

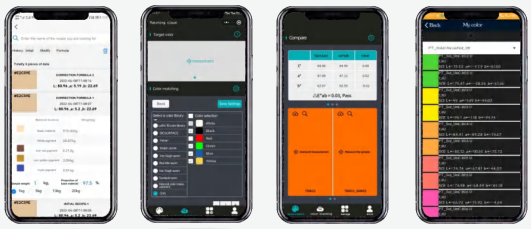
1. Enables color difference measurement with more intuitive color simulation;
2. Allows searching for the closest color and viewing detailed Lab values, spectra, etc.;
3. Enables creation of a personal color database, allowing input of color card information from industries such as printing, coatings, and textiles with massive storage capacity;
4. Connects to the WeChat Mini Program "Color Matching Cloud" for grout color matching and providing color matching solutions.

Color Measurement App (iPhone)

Color Measurement App (Android)

Color Matching Cloud (iPhone)

Color Matching Cloud (Android)



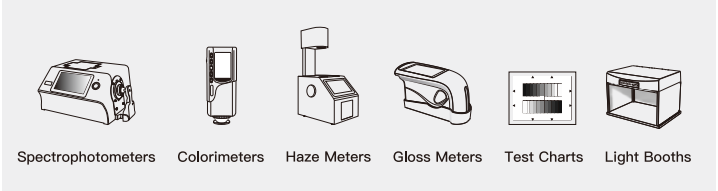
OPTIONAL ACCESSORIES

Product Name	Material Code	Image	Function
Powder Test Box	2.006.01.0011		Easy to use, designed specifically for measuring powdered targets.
Mini Printer	1.609.01.0020		Portable and convenient, capable of continuous printing without connecting to a computer. All measured parameters are easy to store.
Multi–function Testing Kit	/		Capable of holding liquids, powders, granules, etc., which facilitates measurement and improves accuracy and stability.

PRODUCT FEATURES

Product Model	TS-26C
Illumination Geometry	45/0 (45° annular uniform illumination, 0° reception)
Compliance Standards	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO 7724-1, ASTM E1164, DIN 5033 Teil 7
Features	Enhanced spectrophotometer for precise color analysis and communication in laboratories; used for accurate color measurement and quality control in industries such as plastics, electronics, paints, inks, textiles, garment printing, dyeing, printing, and ceramics; capable of measuring fluorescent samples. Suitable for measuring luminance factor and chromaticity coordinates of traffic signs, markings, and reflective films. Includes standard colors from GB 2893 and GB/T 18833, and supports manual customization of polygonal tolerance limits.
Light Source	Combined LED light source, UV light source
Spectroscopic Method	Plane grating spectroscopy
Sensor	Silicon photodiode array (dual array, 40 groups)
Wavelength Range	360—780nm
Wavelength Interval	10nm
Bandwidth (FWHM)	10nm
Reflectance Resolution	0.01%
Reflectance Measurement Range	0~200%
Measurement Aperture	Seven measurement apertures: 12mm, 11mm, 10mm, 6mm, 5mm, 3mm, and 1×3mm rectangular aperture.
Color Spaces	CIE LAB, XYZ, Yxy, LCh, CIE LUV, sRGB, HunterLab, βxy, DIN Lab99, Munsell (C/2)
Color Difference Formulas	ΔEab, ΔEuv, ΔE94, ΔEcmc(2:1), ΔEcmc(1:1), ΔE00, DINΔE99, ΔE(Hunter)
Other Chromaticity Indices	Whiteness Index (WI) (ASTM E313, CIE/ISO, AATCC, Hunter), Yellowness Index (YI) (ASTM D1925, ASTM 313), Metamerism Index (MI), Blackness (My, dM), Tint (ASTM E313-00), Munsell (C/2), staining fastness, color change fastness, tinting strength, hiding power, color density (CMYK). Supports colorimetric polygonal tolerance (partially achieved via PC software).
Measurement Time	Approx. 1.0 s
Display	Spectral graph/data, sample chromaticity values, color difference value/graph, pass/fail result, color deviation
Illuminants	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, DLF, TL83, TL84, TPL5, U30, B, U35, NBF, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2, LED-C2, LED-C3, LED-C5 (41 illuminants in total, some via PC software)
Observer Angle	2°/10°
Display Precision	0.01
Repeatability	Spectral Reflectance: MAV, within 0.07% standard deviation (within 0.2% for 400—700nm) Chromaticity Values: MAV, within ΔE*ab 0.018 (average of 30 measurements of the white plate at 5-second intervals after instrument warm-up and calibration)
Inter-instrument Agreement	MAV, ΔE*ab within 0.15 (average measurement of BCRA Series II 12 color tiles)
Measurement Mode	Single measurement, average measurement (2—99 times)
Dimensions (L×W×H)	169×73×87mm
Weight	Approx. 446g
Battery Capacity	Lithium battery, 10,000 measurements within 8h
Light Source Lifetime	3 million measurements over 5 years
Display Screen	TFT true-color 3.5-inch capacitive touch screen
Interfaces	USB, Bluetooth
Data Storage	1000 standards, 30,000 samples
Languages	Simplified Chinese, English, Traditional Chinese, Russian
Software Support	Android, iOS, Windows, WeChat Mini-Program
Accuracy Assurance	Grade 1 Metrology Certification
Operating Temperature	0—40 °C, 0—85 % RH (non-condensing), altitude < 2000 m
Storage Temperature	-20—50 °C, 0—85 % RH (non-condensing)
Standard Accessories	Power adapter, data cable, built-in lithium battery, user manual, quality-control software (downloadable from official website), white/black calibration box, protective cover, measurement aperture, Positioning plate
Optional Accessories	Mini printer, powder test box, multi-function testing kit

GUANGDONG THREENH TECHNOLOGY CO., LTD.



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