Putting Colors Under the 'Magnifying Glass'—

Leaving No Room for Any Deviation to Hide

Spectrocolorimeter KS-200

The KS-200 is an upgraded universal color measurement device that enhances professional adaptability while building on the accuracy of the base model. With repeatability of ΔE*ab ⩽ 0.028 and inter-instrument agreement of ΔE*ab ⩽ 0.35, it features Grade 1 metrology certification for authoritative traceable data.

It supports 13+ colorimetric indices, 32 evaluation light sources, and multiple color spaces. Equipped with 4 precision apertures (5mm/10mm flat and conical types), it accommodates complex samples and is widely used in industries requiring detailed color parameter control, such as paints & inks and textile dyeing & printing.

ISO9001 CE RoHS

Own the core tech: Top performance, budget price.

/ CORE HIGHLIGHTS

ACCURATE MEASUREMENT GUARANTEES COLOR CONSISTENCY.

High Precision and Stable Performance: Repeatability ΔEab ⩽ 0.028 and inter–instrument agreement ΔEab ⩽ 0.35 ensure color consistency in batch production. The dual–beam optical system minimizes interference from light source energy fluctuations, enhancing stability and repeatability.

Internationally Recognized D/8 SCI/SCE Integration Technology: Complies with D/8 illumination and viewing conditions, incorporating SCI/SCE technology, and adheres to international standards such as CIE, ISO, and ASTM, meeting color management needs across various industries. The dual–beam optical system monitors light source energy fluctuations, effectively reducing measurement interference and further improving stability and repeatability.

Authoritative Metrology Assurance: Certified with first–class metrology accreditation and calibrated by authoritative institutions, ensuring industrial–grade reliability of test results.

1 Multiple Color Measurement Spaces and Observation Light Sources

Provides multiple color spaces, including CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, HunterLab, βxy, and DIN Lab99, along with a wide range of observation light sources such as D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30), U35, NBF, ID50, and ID65. This ensures the ability to meet specific measurement requirements under diverse conditions.

2 Stabilizing Plate + Camera Viewing Positioning

A dual positioning system combining a stabilizing plate and camera utilizes real–time camera viewing to accurately determine whether the object's measured area is the target center. This enables precise targeting of the measurement area and reduces measurement errors.

3 Multi–Form Sample Adaptability

Equipped with four measurement apertures (5mm flat platform, 5mm pointed nozzle, 10mm flat platform, and 10mm pointed nozzle), it supports measurements of samples with various shapes, including flat, curved, and concave–convex surfaces.

/ USER-FRIENDLY OPERATION

CROSS-PLATFORM COMPATIBILITY & DATA INTERACTION

Supports Android, iOS, Windows, HarmonyOS, and other systems. Users can operate the device directly via mobile apps, WeChat Mini Programs, or computers, enabling seamless cross-device data synchronization.

Data Management | Data Printing | Mass Storage | Data Transfer

Ergonomically Designed for Easy Measurement

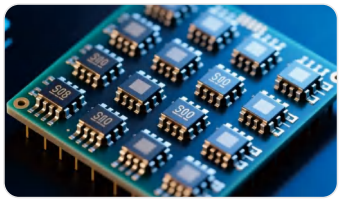
Featuring an ergonomic exterior, a large touchscreen, and an optimized grip design, the user-friendly interface requires minimal training for operation.

User-Friendly Operation

The instrument features an intuitive interface that requires minimal training, allowing even beginners to quickly master its functions and enhancing on-site work efficiency.

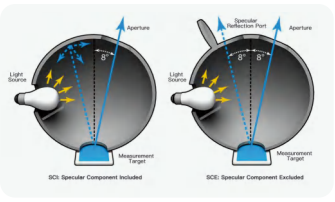
Silicon Photodiode Array Sensor

Featuring a large-area design, the sensor remains resistant to saturation under intense light while maintaining high sensitivity in low-light conditions. With a spectral response range of 400–700 nm at 10 nm intervals and a reflectance measurement range of 0–200%, it accurately captures visible light information.



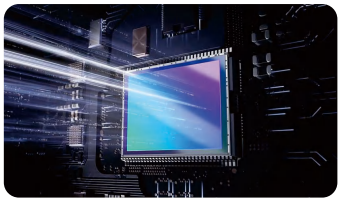
Advanced Hardware Architecture

With an optical resolution of less than 10 nm within the visible light range, it supports simultaneous measurement of SCI (including specular reflection) and SCE (excluding specular reflection) spectra, balancing speed, accuracy, and stability.



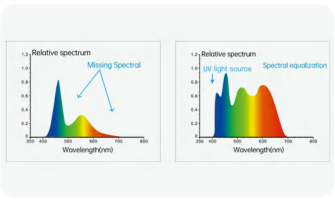
Nano-Integrated Spectral Device

Featuring nanometer-level spectral resolution, it enables precise separation of light across different wavelengths, which ensures data accuracy across the entire spectrum.



Full-Band Balanced LED Light Source

The instrument's illumination source covers the full spectrum of 400–700 nm, providing ample spectral distribution across the visible light range. This design prevents the spectral gaps typical of white LED lights, ensuring the accuracy of measurement results.



POWERFUL EXPANSION & COLLABORATIVE MANAGEMENT

1. Cloud Storage and Collaborative Management

Supports synchronized storage of extensive color data via mobile apps and mini-programs , enabling users to build a private cloud database. Eliminates the need to carry physical color cards and allows real-time data sharing with partners anytime, anywhere.

2. Professional Color Management Software

The included quality management software supports Android, iOS, Windows, WeChat Mini Programs, HarmonyOS, and color matching cloud platforms. It generates test reports, compares color difference data, and customizes color management workflows to meet industrial-grade quality control requirements.

HarmonyOS

Computer-Side Quality Management Software

SQCX Quality Management Software possesses powerful data processing and analytical capabilities. It can control the instrument for measurement, modify instrument configurations, and operate on instrument data. Simultaneously, it significantly expands instrument functionalities, enabling complex data management, color detection, report generation, and more, making it an efficient tool for color quality management.

Color Matching Cloud – Grout Color Matching Software

Color Matching Cloud – Grout Color Matching Software is a task-oriented color formulation software designed for quick one-click color matching with multiple formula options. It features intelligent formula correction, automatic calculation of correction formulas, and seamless integration with third-party systems and equipment. Highly efficient, it significantly saves labor, material, and time costs.

MOBCC— Color Measurement App Software

Color Matching Cloud – MOBCC Color Matching Software synchronizes with massive storage via the app, enabling rapid color measurement, color data review and retrieval, analysis, and comparison. The app allows users to build a private color database in the cloud and find the closest color matches across multiple electronic color Chard sets.

Software Download Address:

http://www.3nh.com/en/client_en_14.html

Download Color Measurement App for iOS	Download Color Measurement App for Android	Download Color Matching Cloud for iOS	Download Color Matching Cloud for 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.

PRODUCT SPECIFICATIONS

Product Model	KS-200 spectrocolorimeter
Optical Geometry	D/8(diffused illumination, 8-degree viewing angle), SCI/SCE (specular component included/specular component excluded) Mode
Meet The Criteria	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO 7724-1, ASTM E1164, DIN 5033 Teil 7
Integrating Sphere Size	Φ40mm
Light Source	Combined full spectrum LED light source
Spectrophotometric Mode	Nano-integrated Spectral Device
Sensor	Large-area silicon photodiode array (double-row 18 group)
Wavelength Range	400~700nm
Wavelength Interval	10nm
Measurement range	0~200%
Measuring Aperture	Four Apertures: 5mm flat + 5mm conical, 10mm flat + 10mm conical
Locating Method	Stabilizer position+camera locating
Calibration	Contact-Type White Calibration
Specular Component	SCI/SCE
Color Space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,HunterLab,βxy,DIN Lab99,Munsell(C/2)
Color Difference Formula	ΔE*ab,ΔE*uv,ΔE*94,ΔE*cmc(2:1),ΔE*cmc(1:1),ΔE*00, DINΔE99,ΔE(Hunter)
Measurement Indicators	Spectral Reflectance, WI (ASTM E313, CIE/ISO, AATCC, Hunter, Taube, Berger, Stensby), YI (ASTM D1925, ASTM 313), Metamerism Index MI,Staining Fastness, Color Change Fastness, Strength, Hiding Power, 555 Hue Classification, Munsell (C/2), Blackness (My, dM), Color Density CMYK, Tint (Some functions require PC software implementation)
Observer Angle	2°/10°
Illuminant	D65, A, B, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30), U35, NBF, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2 (Partial functions require PC software implementation)
Displayed Data	Spectral Graph/Data, Sample Chromaticity Values, Color Difference Value/Graph, Pass/Fail Results, Color Simulation, Color Deviation
Measuring Time	About 1s
Repeatability	Chromaticity Values: MAV/SCI, standard deviation ≤ ΔE*ab 0.028 (after warm-up and calibration, based on the average of 30 white tile measurements at 5-second intervals) Spectral Reflectance: MAV/SCI, standard deviation ≤ 0.1% (≤ 0.2% within 400—700 nm)
Inter-instrument Error	Inter-instrument Agreement: MAV/SCI, ΔE*ab ≤ 0.35 (average of measurements from 12 BCRA Series II color tiles)
Displayed Accuracy	0.01
Measurement Mode	Single Measurement, Average Measurement(2-99times)
Reflectance Resolution	0.01%
Size	120*75*207mm
Weight	367g (calibration base excluded)
Battery	Lithium battery,3.7V,3200mAh,8000 cycles in 8 hours
Illuminant Life Span	More than 1.2 million measurements over 10 years
Display	3.5 inch TFT true color, Capacitive Touch Screen
Data Port	USB,Bluetooth
Data Storage	Standard 200Pcs, Sample 10000Pcs(One data is able to include SCI/SCE); PC mass storage
Software Support	Andriod,IOS,Windows,Wechat small program, Hongmeng
Language	Simplified Chinese, English, Traditional Chinese,Russian
Operating Environment	0~40℃, 0~85%RH (no condensing),Altitude < 2000m
Storage Environment	-20~50℃, 0~85%RH (no condensing)
Accuracy Assurance	Guaranteed to meet Class 1 measurement standards.
Standard Accessory	Power adapter, data cable, user manual, quality management software (download from official website), calibration box, protective cover, wrist strap, measurement apertures.
Optional Accessory	Micro Printer, Powder Test Box