Precision Color Control, Simplified.

Minimal Training, Maximum Efficiency.



Spectrocolorimeter KS-100

The KS–100 is an entry–level spectrocolorimeter specifically designed for routine color measurement, with core advantages of stability, reliability, portability, and ease of operation. Equipped with a dual 18–segment silicon photodiode array and integrated nano–spectral technology, it offers a repeatability of ΔEab ⩽ 0.028 and an inter–instrument agreement of ΔEab ⩽ 0.35, meeting basic color control requirements in industries such as plastics & electronics, printing, and ceramics.

With four measurement apertures for both flat and curved surfaces, support for multi–system connectivity, and a camera for positioning, the KS–100 allows even beginners to start measuring quickly with minimal training.

ISO9001 CE RoHS

Own the core tech: Top performance, budget price.

PRECISION MEASUREMENT

KS-100: Precise and Effortless Measurement — Making color management no longer elusive!





High Precision and Stable Performance: Repeatability ΔEab ⩽ 0.028 and Inter-instrument Difference ΔEab ⩽ 0.35 ensure consistent color uniformity in batch production. The dual-optical path system design minimizes interference from light source energy fluctuations, enhancing stability and repeatability.

Internationally Recognized D/8 SCI/SCE Composite Technology: Complies with D/8 illumination and observation conditions, along with SCI/SCE composite technology, meeting international standards such as CIE, ISO, and ASTM. It caters to color management needs across various industries. The dual-optical path system design monitors light source energy fluctuations, effectively reducing measurement interference and further improving stability and repeatability.

Authoritative Metrology Certification, Trusted Results: Each instrument is calibrated by authoritative institutions before leaving the factory, with metrology certification compliance. Measurement data is traceable to the National Metrology Institute, ensuring the authority of test results.

1. Stabilizing Plate + Camera Viewing for Positioning

A dual positioning system combining a stabilizing plate and camera provides a real-time view to confirm whether the targeted area is at the center. It accurately locks the measurement area, reducing errors caused by manual operation.



2. Multi-Aperture Design for Various Samples

Equipped with four measurement apertures (5mm/10mm platform + needle tip), it supports samples of different shapes, including flat, curved, and concave-convex surfaces.



3. Ergonomic Design & User-Friendly Operation

Featuring an ergonomically designed shape that fits naturally in hand, along with a large, intuitive touchscreen and clear operational logic. No complex training is required — even beginners can operate it with ease, improving on-site efficiency.



/ 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



/ ROBUST HARDWARE

1. Core Optical Components for Precise Spectral Capture

Silicon Photodiode Array (Dual-row, 18 sets): Features a large-area design that resists saturation under strong light while maintaining high sensitivity in low-light conditions. It covers a spectral response range of 400–700nm with 10nm intervals and a reflectance measurement range of 0–200%, ensuring accurate capture of visible light information.

Nano-Integrated Spectroscopic Device: Offers nanometer-level light-splitting capability to precisely separate light of different wavelengths, guaranteeing the accuracy of spectral band data.

Full-Spectrum Balanced LED Light Source: Covers the entire 400–700nm spectrum to prevent spectral data loss and ensure measurement accuracy.

2. Advanced Hardware Architecture for Efficiency and Precision

With an optical resolution of less than 10nm within the visible spectrum, it supports simultaneous measurement of both SCI (Specular Component Included) and SCE (Specular Component Excluded) spectral data, achieving an optimal balance of speed, accuracy, and stability.

/ CROSS-INDUSTRY APPLICATIONS

It supports switchable measurement modes to flexibly meet the inspection needs of various sectors, including plastics & electronics, paints & inks, textile & garment printing/dyeing, printing, and cosmetics.



Plastics & Electronics



Textiles & Dyeing



Paints & Coatings



Printing & Paper Products



Cosmetics

/ POWERFUL EXPANSION & COLLABORATIVE MANAGEMENT

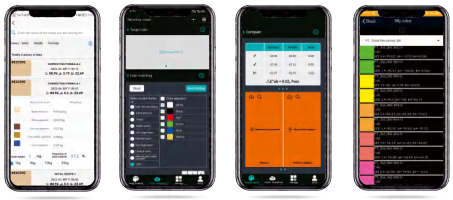
1. Cloud Storage and Collaborative Management

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.



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-100 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
Color Difference Formula	ΔE*ab
Measurement Indicators	/
Observer Angle	2°/10°
Illuminant	D65
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 Metrological Compliance
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