

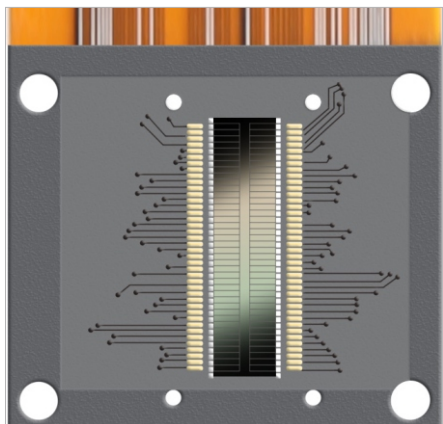


Powerful, Accurate and Convenient



SHENZHEN THREE NH TECHNOLOGY CO., LTD.

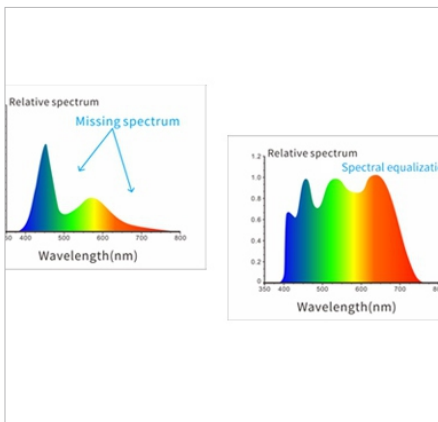
PRODUCT FEATURES



1. Silicon photodiode array (double 32 array) sensor

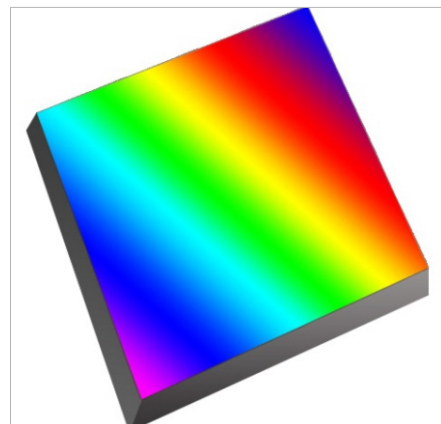
The dual-32 array sensor with larger area has strong light but not saturate, higher sensitivity of low light and wider spectral response range, which ensures the measurement speed, accuracy, stability and consistency of the instrument.

Mastering the core technology and fully compatible with international standards.



2. Adopt full-band balanced LED light source

The full-band balanced LED light source ensures sufficient spectral distribution in the visible light range, avoids the lack of spectrum of white LEDs in a specific band, and ensures the measurement speed of the instrument and the accuracy of the measurement results.



3. Grating Spectrophotometric technology

Using grating spectrophotometric technology, it has higher resolution and makes color measurement more accurate.



4. Place the base safely to ensure that the whiteboard is not dirty.



5. Professional whiteboard, a promise that will never change color forever.



6. Fast charging

Special fast charging method, low-voltage reminder to charge or use of off-hours to charge, to ensure the capacity and life of the battery (note: frequent repeated charging of the battery is more harmful).



7. Novel and fashionable appearance design based on ergonomics

The position of the hand grip and the measurement button are carefully designed to meet different gripping habits. The smooth and fine surface is derived from the art of high-precision appearance processing.



8. Equipped with 4/8mm dual measuring apertures to meet the measurement needs of different samples

Spectrocolorreader CR9 (Advanced) is equipped with $\varnothing 8\text{mm}$ and $\varnothing 4\text{mm}$ platform measuring apertures, which can meet the measurement needs of most special samples.



9. Camera locating, can clearly observe the measured area

Spectrocolorreader CR9 (Advanced) has a built-in camera for framing and positioning. Through the real-time framing of the camera, it can accurately determine whether the measured part of the object is the center of the target, which improves the measurement efficiency and accuracy.



10. Massive color card database

The instrument stores 1000 standard and 30,000 samples, and the APP synchronously stores a large amount of data, which can quickly check color data, analyze and compare. Use the App to build your private color database in the cloud. You don't need to carry a heavy color card. You can use CR9 colorreader to find the closest color in multiple color cards anytime and anywhere.

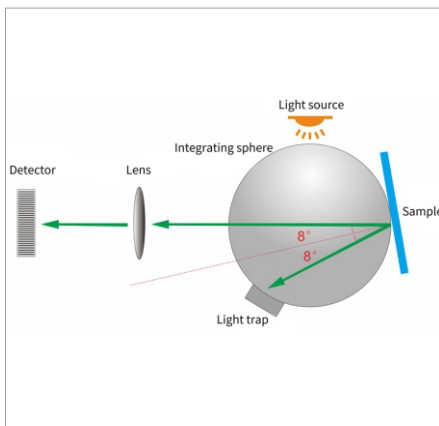


11. Excellent inter-instrument error and repeatability to ensure the consistency of measurement data of multiple equipment.



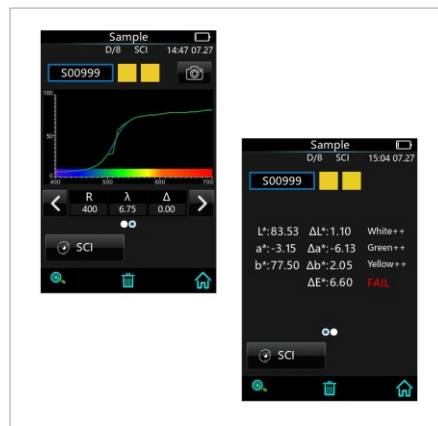
12. Multiple color spaces, multiple observation light sources

Provide CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, β_{xy} , DIN Lab9, DIN Lab99 Munsell(C/2) color space, and D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30) a variety of observation light sources, can meet the special measurement requirements under different measurement conditions.



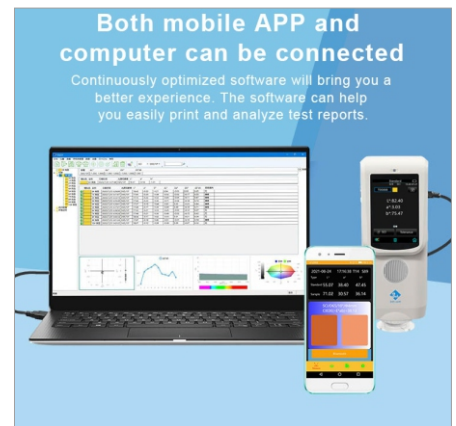
13. Adopt the internationally used D/8 SCI/SCE synthesis technology

The D/8 (SCI/SCE) measurement structure is adopted to reflect the color itself more objectively, and reduce the influence of the surface texture of the object on the test results. It conforms to the standard CIE No. 15, GB/T 3978, GB 2893, GB/T 18833, ISO 7724-1, ASTM E1164, DIN 5033 Teil 7.



14. Diversified data display

SpectrocolorreaderCR9 (Advanced) can intuitively display reflectance graph/value, sample chromaticity value, color difference value/graph, pass/fail result, color simulation, color offset and other data. It is convenient to view and also greatly improves the user's work efficiency.



15. Use whatever you want

It can be used alone, 3.5inch true color screen can check data at any time, cooperate with SQCX quality management software to facilitate quality monitoring and color data management, with APP to synchronize data at any time, and more application scenarios are waiting for you to discover.

APPLICATION INDUSTRY

Dual measurement aperture, wider adaptability; used for accurate color measurement and quality control in plastic and electronic, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries



paint



plastic



ceramics

PRODUCT PARAMETERS

Model : CR9 (Advanced)

Optical geometry : D/8 (diffuse illumination, 8° direction reception) SCI/SCE measurement Comply with standard CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1, ASTM E1164,DIN5033 Teil7

Characteristics : Customized single measurement aperture, wider adaptability; used for accurate color measurement and quality control in plastic and electronic, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries

Integrating sphere size : Φ 40mm

Light source : Combined full-spectrum LED light source

Spectroscopic method : Planar grating

Sensor : Silicon photodiode arrays (dual row 32 groups)

Wavelength range : 400~700nm

Wavelength interval : 10nm

Semiband Bandwidth : 10nm

Measurement range : L:0~120 Reflectivity: 0~200%

Measurement aperture : Φ 8mm, Φ 4mm

Focusing method : Optical Focus + Electronic Focus

Specular component : SCI&SCE

Color space : CIE LAB,XYZ,Yxy,LCh,s-RGB, β xy,Munsell(C/2)

Color difference formula : $\Delta E^*ab, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN}\Delta E99$

Other colorimetric indexes : WI(ASTM E313, CIE/ISO,AATCC,Hunter). YI(ASTM D1925, ASTM 313), Metamerism index Mt staining fastness,color fastness, strength, opacity,color card search

Observer angle : 2°/10°

Illuminant : D65,A,C,D50,F2(CWF),F7(DLF),F10(TPL5),F11(TL84),F12(TL83/U30)

Displayed data : Spectrogram/data, chromaticity value, color difference value/graph, pass/fail result, color simulation, color offset

Display Accuracy : 0.01

Measurement time : Approx. 1.5s (Measure SCI & SCE about 3.2s)

Repeatability : Chromaticity value: MAV/SCI, ΔE^*ab within 0.04 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

Inter-instrument error : MAV/SCI, within ΔE^*ab 0.35(Average for 12 BCRA Series II color tiles)

Measurement method : Single measurement, average measurement (2~99 times)

Locating method : Camera locating, stabilizer locating

Size : LxWxH=81X71X214mm

Weight : About 460g

Battery power: Lithium battery, 6000 times in 8 hours

Illuminant life span: 5 years, more than 3 million times measurements

Display : TFT true color 3.5inch, capacitive touch screen

Data port : USB, Bluetooth®

Data storage : 1000 standard samples, 20,000 samples (a piece of data can include SCI/SCE at the same time), APP mass storage

Language : Simplified Chinese, English, Traditional Chinese

Operating temperature range : 0~40°C, 0~85%RH (no condensation), altitude< 2000m

Storage temperature range : -20~50°C, 0~85%RH (no condensation)

Standard Accessories : Power adapter, data cable, manual, SQCX quality management software (official website download), black and white calibration box, protective cover, wrist strap, three aperture: Φ 8mm + Φ 4mm platform aperture, MOBCCS APP (official website download)

Optional Accessories : USB micro printer, powder test box, Bluetooth micro printer

Notes : Technical parameters are for reference only, subject to the actual sales of products



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The specifications and design may be changed without notice.