3nh®
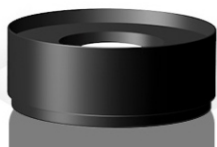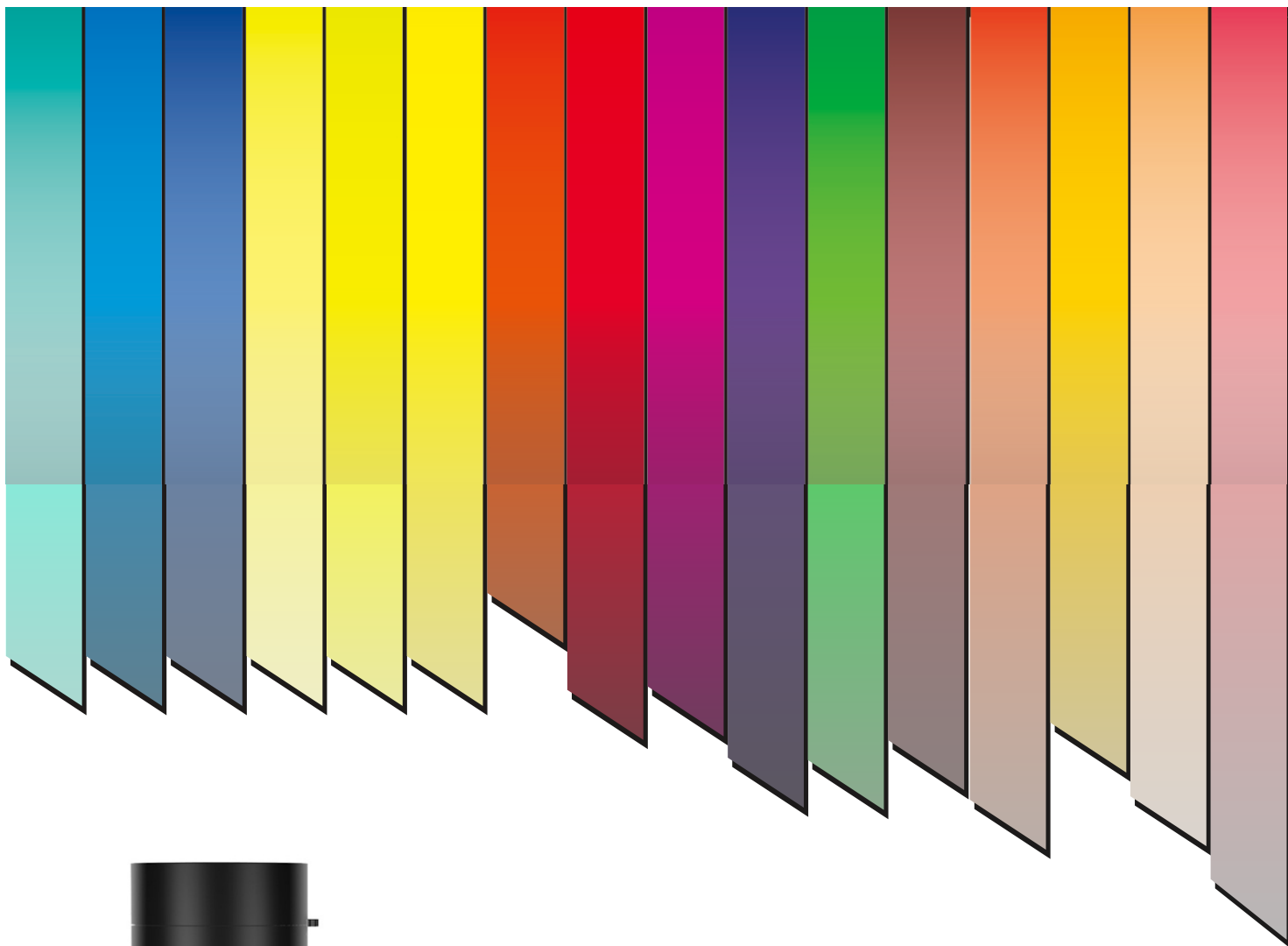
Easy to carry smart color measurement tool

CR4505 45° Ring illumination

CR4505 Chromatics is developed by combining advanced color sensors with rich performance APP applications. It adopts 45/0 (45 degree ring lighting, 0 degree reception) geometric optical structure in accordance with CIE No.15. It specially sets up multi-functional "smart keys" and professional non-contact automatic whiteboard verification. The two - in - one color aberration meter and mobile phone color aberration treasure are realized.

D65/10

L*: 86.54
a*: -6.23
b*: 67.11
05

3nh. com

Support mobile APP   USB/Bluetooth®   Find the color   Rapid measurement

CE   N   TÜV   RoHS   FC

Product features

Accurate measurement

Repeatability less than or equal to 0.05, display accuracy 0.01,You can get accurate color measurements with just a click.

Automatic calibration

The use of professional contact type automatic check technology, professional standard whiteboard Reflectance R%≥92% good surface uniformity, high stability.
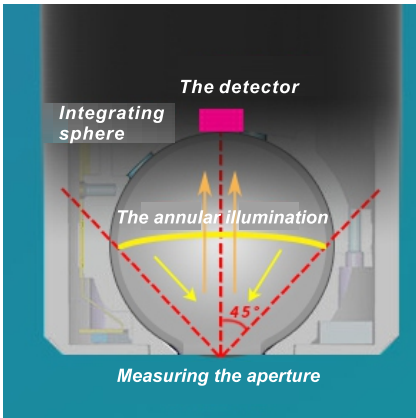
Smart keys

Can independently complete the measurement function Settings or test data review,No need to connect to a phone or computer.

Double optical path design

Professional dual light path sensor and Full spectral light source

Convenient to carry

Small size, powerful function, easy to carry around,Measurement anytime, anywhere
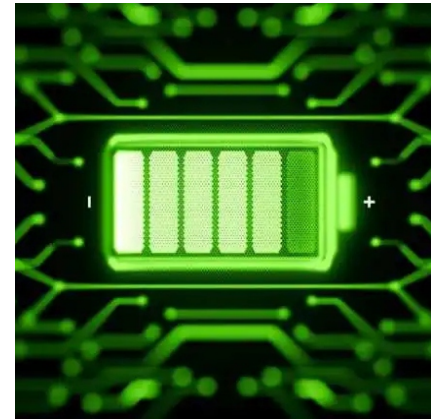
Large capacity battery

Type-c interface, full charge can be tested for 12,000 times.
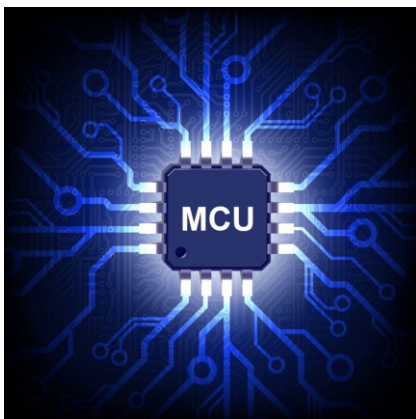
Higher quality

Using industrial grade real-time processing MCU,Bluetooth is more convenient for wireless transmission.

The data show diverse patterns

Color difference treasure CR4505 with APP can visually display the sample chromaticity value, Color difference value/graph, pass/fail result, color simulation, color bias,Reflectivity etc.
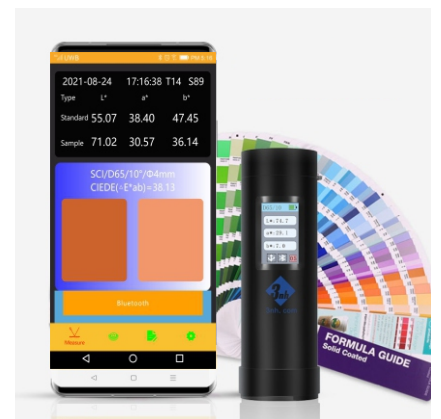
A large number of color cards are built into the APP

APP synchronizes massive storage, which can be carried out quicklyColor data review, analysis and comparison.

ColorReader
CR4505

Powerful

- Suitable for color difference quality control in plastic electronics, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries
- Spectral reflectance, WI (ASTM E313, CIE/ISO, AATCC, Hunter). YI(ASTM D1925, ASTM 313),Colorimetric index Mt, color fastness,Color fastness, Strength, Shading,555 Tone classification, Munsell(C/2) (realized by mobile APP)

Durable

- Light weight, impact resistance, dirt resistance and storage resistance
- Operating temperature range: 0 to 40 ° C, 0 to 85%RH(no condensation), altitude: below 2000m
- Storage temperature range -20~50℃, 0~85%RH(no condensation)

Efficient

- Perfect for lab and outside use
- 8mm standard caliber, suitable for most product measurement
- Support USB cable and Bluetooth wireless transmission, data measurement and transmission, convenient and fast
- Support mobile APP color search, color search, data management
- The measurement is fast and accurate, and it only takes 1S to measure SCI and SCE simultaneously

Accuracy of reading

- Measurement accuracy 0.01
- The standard deviation of repeatability was within 0.05 of ΔE^*ab
- Support multiple national and international standard measurement
- 45° illumination simulated human eye structure observation
- Support display of conformance and nonconformance within tolerance

The detector

Integrating sphere

The annular illumination

45°

ColorReader

CR4505

3nh®
www.3nh.com
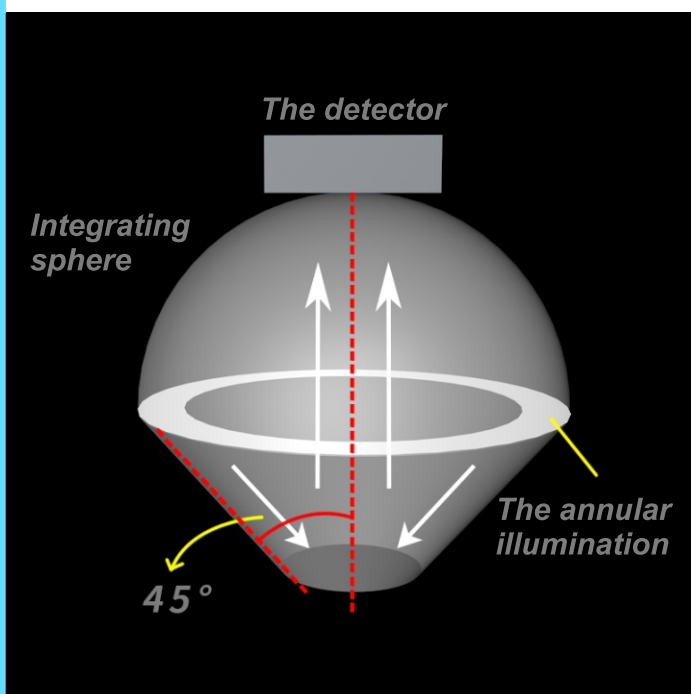
SQCX

Connect devices for powerful extensions

Create instant reports using SQCX

SQCX can be connected through USB cable, Bluetooth (only the instrument supporting Bluetooth) color spectrometer, support a variety of table color system, light source, more complex data management, color detection, report generation, etc., is the right hand of color quality management.

5.0

Bluetooth adapter

SQCA

The connection

Connect the device to your phone via Bluetooth® to view real-time readings directly and save them to history.

Review

Visually view historical measurement records for easy comparison.

Management and printing

Data can be copied, deleted, uploaded to the cloud, etc. Data can also be printed out by connecting to a Bluetooth printer.

Rename and change

Data records can be named to facilitate recording and modify the data at the same time.

Look up the color and the color formula

Massive color data is built into the APP. By analyzing the measured color, the software automatically finds the similar color difference and obtains the color formula.

Transmission

The data is detected by email from mobile devices to computers for further analysis and reported or transmitted through the cloud.
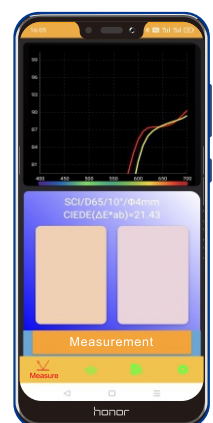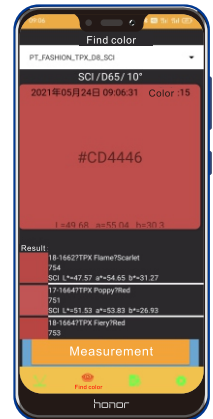
Android	iOS Mobile Phone & Computer	HarmonyOS
WeChat program	Windows	

APPLICATION INDUSTRY

Color difference treasure is used for color difference quality control in plastic electronics, paint and coating, textile and garment printing and dyeing, ceramics and other industries; Multiple data can be measured through the mobile APP, and color difference measurement and color matching can be easily realized. The instrument is compact and convenient to carry, and it also has the function of finding color cards by APP.

CR4505 (advanced edition)

Model: CR4505

Lighting system: 45°annular uniform illumination 0° reception

Conform to the standard: CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7

Lighting source: Full spectrum LED light source

Spectroscopic methods: Light filter splitting

Sensors: CMOS dual optical path sensor

Measurement wavelength range: 400-700nm

Wavelength interval: 10mm

Measure the diameter: Φ8mm

Color space: CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB, HunterLab,βxy,DIN Lab99

The color difference formula: $\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, DIN\Delta E99, \Delta E(Hunter)$

Other chromaticity indexes:
Reflectivity, WI(ASTM E313, CIE/ISO,AATCC, Hunter), YI(ASTM D1925, ASTM 313),Metamerism index MT, Staining Fastness,Color Fastness,Color Strength,Opacity, 555 tone classification, Munsell(C/2), APP implementation

Angle of observer: 2°/10°

Illumination: 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,ID65(Partly through mobile APP)

Display: Sample chromaticity value, Color difference value/graph, Pass/Fall result, color simulation,Color bias, reflectance (partly achieved through mobile APP)

Measuring time: about 1S

Inter-instrument Error: $\Delta E^*00<0.4$
(BCRA II series 12 color bricks measured average)

Stability of measurement:
Chromaticity value: ΔE^*ab within 0.05
(After preheating and correction, the average value of the whiteboard is measured for 30 times at an interval of 5s)

Multi-function smart button: Have (can set parameters and search data)

Measurement requirements:
Passed the Chinese standard of measurement

Display precision: 0.01

Size: Ø30X100mm

Weight: about 88g

Battery: Lithium battery, full charge can be tested for 12,000 times

Illumination source lifetime:
More than 3 million measurements in 5 years

Display: 1.14inch-IPS Color LCD

Interface: Type C USB, bluetooth

Store the data: There are 10 standard samples and 100 samples, which can be expanded for mass storage through mobile APP.The instrument has the function of searching measurement data

Software support: Andriod,IOS,Windows, Wechat small program, Hongmeng, color cloud

Language: Chinese, English

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

Storage temperature range: -20~50°C, 0~85%RH

Standard accessories: Data line, manual, calibration box, SQCX quality management software,Color matching cloud wechat applet, MOBCCS APP(download from the official website)

Optional accessories: Micro printer

GUANGDONG THREENH TECHNOLOGY CO., LTD.