CHNSpec

High precision Portable spectrophotometer

DC-23D
DC-25D
DC-26D

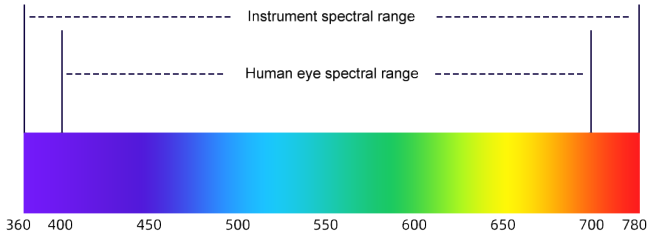
Repeatability Accuracy dE*ab≤0.01

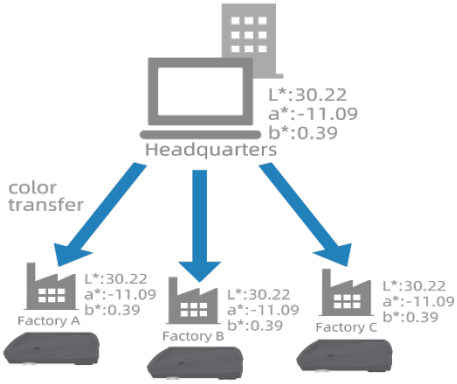
Inter-Instrument Agreement dE*ab≤0.12

一、Product features

■ Industry-leading wavelength range: 360-780nm

●The wavelength range of conventional colorimeter is 400-700nm. In order to achieve moreAdd precise color measurement and extend the wavelength to 360-780nm





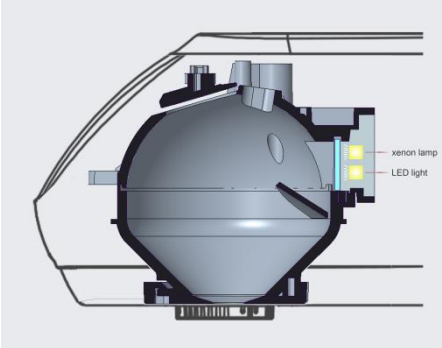
■ Outstanding stage-to-stage variation and repeatability

●The inter-stage difference is 0.12, which helps improve the color quality between manufacturers and suppliers

●The repeatability is 50% higher than the previous generation, reaching 0.01

■ Dual light source system provides longer service life than expected

●Use xenon lamp and LED to provide sufficient ultraviolet and visible light at the same time energy and ensure a measurement life of tens of millions of times



■ Support NetProf network correction function

●Using NetProf software, the measurement performance of the instrument can be regularly checkedto ensure accurate and reliable color measurement Calibration can reduce the risk of instrument failure caused by component aging, wear, etc.System deviation caused by the system deviation, accurate measurement data brings users more freedom Xin usage experience

■ Provides 6 measuring apertures to easily measure samples of different shapes

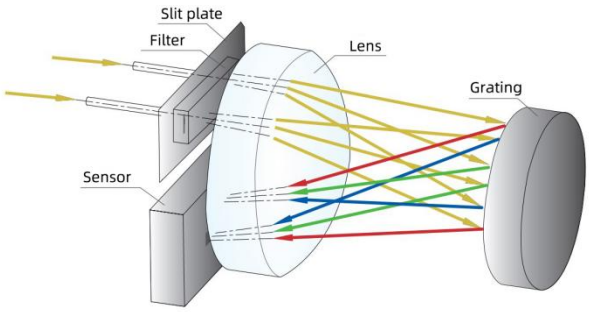
●Six hole specifications: 11mm, 10mm, 6mm, 5mm, 3mm, 1*3mm diameter, very small objects or curved surface samples can also be easily measured

■ BCRA green plate wavelength calibration

●Automatic wavelength accuracy calibration using reference grade BCRA green plate correct to ensure that the instrument is consistent

■ Indication accuracy increased by 60%

●Using a new generation of array silicon light sensor, the amount of light input is increased 65%, spectral resolution increased by 39%, compared with the previous generation The indication accuracy is increased by 60%



■ Intelligent automatic calibration

●Frequent manual calibration is not required during use, as long as the calibration On the accurate base, the instrument will automatically adjust according to its own status and environmental factors.Calibrate the overall instrument function and accuracy to ensure that the instrument The device is always in a stable state and ready for use at any

二、Brief table of model differences

model	Spectrophotometer DC-23D	Spectrophotometer DC-25D	Spectrophotometer DC-26D
SCI	•	•	•
SCE	•	•	•
Measurement repeatability	dE*ab≤0.02	dE*ab≤0.01	
Inter-Instrument Agreement	dE*ab≤0.25	dE*ab≤0.2	dE*ab≤0.12
caliber	Φ11mm,Φ6mm	Φ11mm,Φ10mm, Φ6mm,Φ3mm	Φ11mm,Φ10mm, Φ6mm,Φ5mm,Φ3mm, 1mm*3mm
Wavelength range	360-740nm	360-780nm	
Light source life	6 million times	10 million times	
UV	•	•	•
measurement observation method	Camera	Camera	Camera
BCRA Green Brick	•	•	•
NetProf network calibration	•	•	•

三、Product parameters

Product model	Spectrophotometer DC-23D	Spectrophotometer DC-25D	Spectrophotometer DC-26D
Measuring structure※	D/8.SCI+SCE		
Light source life	6 million times	10 million times	
Wavelength range	360-740nm	360-780nm	
SCI+SCE Measure simultaneously	support		
NetProf network calibration	support		
Calibration method	BCRA certified black and white board energy calibration, green board wavelength accuracy calibration		
Measurement repeatability※※	dE*ab≤0.02	dE*ab≤0.01	
Inter-Instrument agreement※※※	dE*ab≤0.25	dE*ab≤0.2	dE*ab≤0.12
Display accuracy	0.01		
Lighting source	Full-band balanced LED light source + xenon lamp		
UV light source	Yes		
Caliber	Φ11mm,Φ6mm	Φ11mm,Φ10mm, Φ6mm Φ3mm	Φ11mm,Φ10mm,Φ6mm,5mm, Φ3mm 1mm*3mm
Measurement standard	Spectral reflectance, CIE-Lab, CIE-LCh, HunterLab, CIE-Luv, XYZ, Yxy, RGB color difference (ΔE*ab, ΔE*cmc, ΔE*94, ΔE*00), whiteness (ASTM E313-00, ASTM E313-73, CIE, ISO2470/R457, AATCC, Hunter, Taube Berger Stensby), yellowness (ASTM D1925, ASTM E313-00, ASTM E313-73) blackness (My, dM), stain fastness, discoloration Fastness, Tint (ASTM E313-00) color density CMYK (A, T, E, M), metamerism index Milm, Munsell, hiding power, strength (dye strength, tinting strength)		
Light source conditions	A,B,C,D50,D55,D65,D75F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12CWF,U30,U35,DLF,NBF,TL83,TL84,ID50.ID65.LED-B1.LED-B2.LED-B3.LED-B4LED-B5.LED-BH1.LED-RGB1.LED-V1.LED-V2		
Observation method	Camera		
Calibration	Intelligent automatic calibration		
Software support	Android, iOS, Windows, WeChat applet		
Accuracy guaranteed	Guarantee first-level measurement qualification		
Standard observer	2°，10°		
Integrating sphere diameter	40mm		
Standards	CIE No.15.GB/T 3978.GB 2893.GB/T 18833.ISO7724-1.ASTM E1164.DIN5033 Teil7		
Spectral method	grating		
Sensor	Dual column high-precision CMOS array sensor		
Wavelength interval	10nm		
Reflectivity measurement range	0-200%		
Reflectance resolution	0.01%		
Measuring time	about 1 second		
Interface	USB. Bluetooth		
Screen	Full color screen. 3.5 inches		
Battery capacity	Can continuously measure 8000 times on a single charge. 7.2V/3000mAh		
Language	Simplified Chinese. English		
Storage	Instrument: 10.000 items: APP: Mass storage		

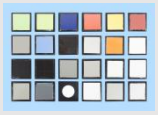
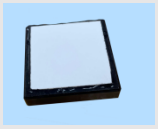
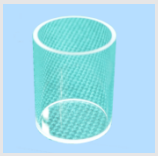
Size	233mm*77mm*93mm
Weight	About 600g

※ Diffuse lighting/8° direction reception, including specular reflected light/removing specular reflected light

※※ After the whiteboard is calibrated, measure the whiteboard 30 times at 5-second intervals. Standard deviation of the MAV caliber measurement results.

※※※ The average of the MAV caliber measurement values of 12 color plates in the BCRA series.

四、 Optional accessories

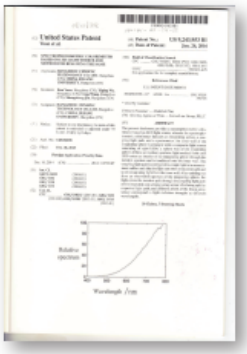
Material code	Name	Picture
1.51.01.0069-0	12 colored bricks	
1.51.01.0068-0	24 colored bricks	
1.51.02.0008-0	Zhejiang Province Modern Metrology Test Measurement Report	
1.51.01.0016-0	Ceramic test base plate	
3.07.04.2003-0	800 quartz cylindrical cuvette (outer size φ 32*41mm, wall thickness 1.5mm)	

CHNSpec Technology (Zhejiang) Co., Ltd

CHNSpec Technology (Zhejiang) Co., Ltd is a domestic leading enterprise in the field of color detection, mainly engaged in the research and development, production and sales of color detection equipment, products including color difference meter, spectrophotometer, transmittance fog meter, gloss meter, paint color matching software, hyperspectral camera, in domestic and foreign plastics, paint, printing, auto parts, metal, home appliances and other industries, universities, scientific research institutions are widely used. Color spectrum Technology is located in Xiasha Higher Education Park, Hangzhou. The principal person in charge of the company has a senior title and a doctorate degree or above. The company has introduced research and development teams from well-known universities such as Zhejiang University and China Jiliang University. The development of color spectrum has attracted the attention of domestic experts and scholars, and has cooperated with authoritative research institutions such as the Key Laboratory of Modern Metrology Testing and Instrumentation of Zhejiang Province and the National Engineering Center of Metrology Testing Technology of the Ministry of Education. Under the care of experts, the technical level and research and development ability of color spectrum have been developed by leaps and bounds, and have achieved remarkable results. Color spectrum technology has a number of invention patents, including the United States invention patent 1, a number of utility model patents, appearance patents, software Copyrights. In addition, there are a number of invention patents in the announcement stage. Many papers published by color spectrum technology were published in domestic first-class scientific research journals, and were included by SCI and EI.

CHNSpec

Qualification and honor



CHNSpec

Product certificate

CE Certificate

Full Test Report

RoHS Certificate

FCC Certificate

UKCA Certificate

Verification Certificate of National Institute of Metrology

Participation in standard development

Specification for calibration of Pt-Co colorimeters

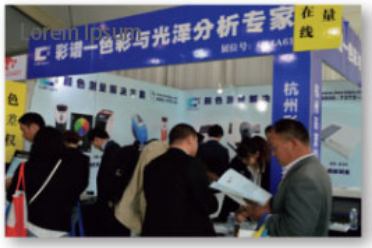
Leather color fastness test - Change in color under accelerated aging conditions (QB/T 5250-2018)

Leather Color Fastness Test - Color Migration onto PVC Film (QB/T 5252-2018)

Textiles - Quantitative analysis of polyester blended fabrics - Hyperspectral method

Color fastness test - Rating of staining on adjacent fabrics - Hyperspectral method

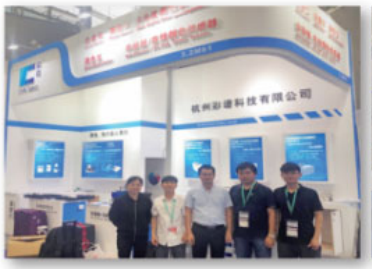
Industry conference



Chinaplas 2016

2016 CHNSpec Technology Seminar - Dongguan Station

2016 CHNSpec Technology Seminar - Guangzhou Station

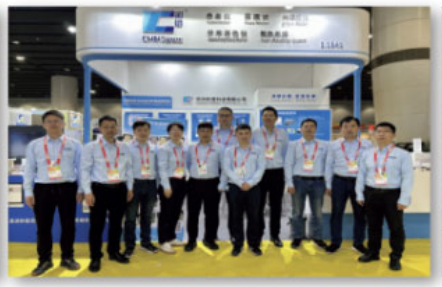


Chinaplas 2019

The CHINACOAT Series Of Exhibition 2020

United Coatings Conference 2022

2023 Chongqing Color Masterbatch Annual Conference



The CHINACOAT Series Of Exhibition 2023

2023 Shanghai Sewing Industry Annual Conference