MULTI ANGLE SPECTROPHOTOMETER BJH1F5 (BMAS-1201)

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The Multiangle Spectrophotometer is a device for color measurement, adopts Industrial grade MCU with 12 measuring angles, which can provide accurate and consistent color measurement for metallics, pearlescents and other complex special effect finished products. It is mainly used to measure the color difference of surface paint affected by different viewing angles and conditions.

Multiangle measurement:
Adopt 7 illumination sources, 2 receivers to measure 12 measurement angles at the same time
More intuitive display:
The touch screen can display all Angle measurement results, giving a more intuitive view of the comprehensive data.
Effect measurement discrimination function:
Quickly distinguish the sample Sparkle Grade(SG),Diffuse coarseness(DC) and Color Variation(CV), simple and effective quality inspection.
256 Image Element Double Array CMOS Image Sensor:
The higher optical resolution ensures the measuring speed, accuracy, stability and consistency of the instrument. The core technology makes it the same platform

SPECIFICATIONS

Model	BJH1F5
Old Model	BMAS-1201
Measurement Geometry	3 measurement angles (3 illumination sources, 1 receivers)
Measure Angle	45° Receiver: 45as25°, 45as45°, 45as110°
Standards	ASTM D2244, E308, E1164, E2194, E2539, DIN5033, 5036, 6174, 61751, 61752, ISO 7724, 116644, SAE J1545
Light Source	Full spectrum LED light source with blue enhancement
Lamp Life	5 years, 3 million times measurements
Spectrophotometric Mode	Concave Grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Spectral Range	400-700 nm
Wavelength Interval	10 nm
Measurement Range	0-600%
Semiband Width	10 nm
Measuring Aperture	Φ12 mm
Color Spaces	CIE LAB, XYZ, Yxy, LCh, βxy, DIN Lab99
Color difference formulas	ΔE*ab, ΔE*94, ΔE*cmc(2:1), ΔE*cmc(1:1), ΔE*00, DINΔE99, ΔE DIN6175
Other Colorimetric Index	Flop Index
Observer Angle	2° / 10°
Illuminant	D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)
Display (results)	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measuring Time	Approx. 1 s for one angle; Approx. 3 s for all angles
Repeatability	Spectral reflectance: SD ≤ 0.08%; Chromaticity value: ΔE*ab ≤ 0.04 (white plate measured 30x at 5 s intervals after calibration)
Reproducibility	ΔE*<0.10_avg on gray tile of BCRA set; ΔE*<0.25_avg on color BCRA tile set

Interinstrument Error	0.2 ΔE*00 (avg on reference Series II BCRA tile set)
Trigger mode	Pressure sensing trigger, button trigger, software trigger
Measuring Mode	Single measurement, average measurement (1-99), continuous measurement (1-99)
Locating Mode	Color camera preview
Dimension (LxWxH)	195 x 83 x 128 mm
Weight	About 1 kg
Power	Liion battery, 3.7 V, 5000mAh; continuous test 6000 times within 8 hours
Display (screen)	3.5inch TFT color LCD; Capacitive Touch Screen
Interface	USB
Data Storage	1000 pcs Standards; 4000 pcs Samples
Language	Simplified Chinese, Traditional Chinese, English
Operating Environment	10 °C to 50 °C; RH ≤ 85%; no condensation
Storage Environment	-20 °C to 50 °C; RH ≤ 85%; no condensation
Calibration	Builtin white board parameters; external white board; black light trap; color board
Calibration Interval	4 h, 8 h, 24 h; Startup calibration
Standard accessories	Power Adapter, USB Cable, User Guide, PC Software (download from the official website), Calibration Board, black light trap, Protective cap, wristband
Optional Accessory	Microprinter
Alt Name	MultiAngle Spectrophotometer

FEATURES
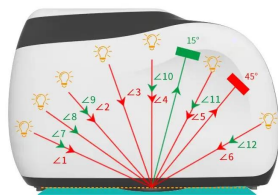
Multiangle measurement:
Adopt 7 illumination sources, 2 receivers to measure 12 measurement angles at the same time

More intuitive display:
The touch screen can display all Angle measurement results, giving a more intuitive view of the comprehensive data.

Effect measurement discrimination function:
Quickly distinguish the sample Sparkle Grade(SG),Diffuse coarseness(DC) and Color Variation(CV), simple and effective quality inspection.


256 Image Element Double Array CMOS Image Sensor:
The higher optical resolution ensures the measuring speed, accuracy, stability and consistency of the instrument. The core technology makes it the same platform with international standards and complete compatibility.
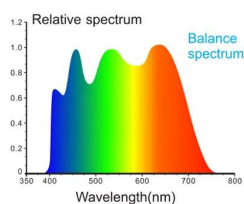
Adopt Full spectrum LED light source with blue enhancement:
The Full spectrum LED light source with blue enhancement ensures sufficient spectral distribution in the visible light range, avoids the spectral loss of LED in a specific band, and ensures the accuracy of instrument measurement results and low cost maintenance.
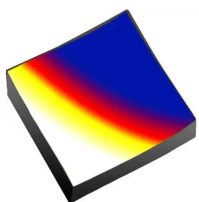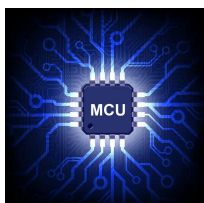

Concave grating spectrophotometric technology:
Using concave grating spectrophotometric technology, with higher resolution, makes color measurement more accurate.
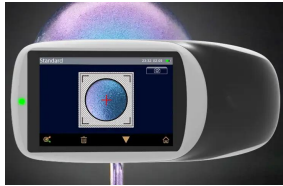

Professionalgrade white board:
Professionalgrade white board, high hardness in the surface, stable optical performance

Higher quality:

Industrial grade realtime processing MCU, Bluetooth 5.0 transferring more stable and reliable.

Color camera preview, can clearly observe the measured area:
Builtin color camera positioning, can accurately judge the object measured position, and improve the measurement efficiency and accuracy.

Multiple color measurement space, multiple observation light sources:
Offer CIE LAB,XYZ,Yxy,LCh,β XY,DIN Lab99 color space, And D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4 and F5, F6 and F7 (DLF), F8, F9, F10 (TPL5), and F11 (TL84), F12 (TL83/U30) A variety of light source, which can meet the special measurement demand under different measurement conditions.

Ergonomics Novel and fashionable appearance design:
The instrument appearance design is easy to operate, and the hand holding position and the measurement button are welldesigned, which can meet different holding habits, smooth and fine surface, from the highprecision appearance treatment process.

Easily analyze data:
Color data

Easily analyze data:
Sample effect value

Easily analyze data:
Color difference graph
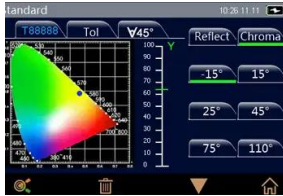
Easily analyze data:
samples chromaticity value