



MULTI ANGLE SPECTROPHOTOMETER BMAS-1203

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Multi angle spectrophotometer is instrument with combine color imaging with multi-angle technology to deliver precise color measurements.

BMAS-1203 MULTI ANGLE SPECTROPHOTOMETER

- Multi-angle measurement
- More intuitive display
- Effect measurement discrimination function
- 256 Image Element Double Array CMOS Image Sensor
- Adopt Full spectrum LED light source with blue enhancement
- Concave grating spectrophotometric technology
- Professional-grade white board
- Higher quality
- Ergonomics Novel and fashionable appearance design
- Color camera preview, can clearly observe the measured area
- Multiple color measurement space, multiple observation light sources
- Easily analyze data

SPECIFICATIONS

Model	BMAS-1203
Measurement Geometry	6 measurement angles (6 illumination sources, 1 receivers)
Measure Angle	45° Receiver: 45as-15°,45as15°,45as25°,45as45°,45as75°,45as110° Standards: ASTM D 2244,E 308,E 1164,E 2194, E2539,DIN 5033,5036,6174,6175-1,6175-2;ISO 7724, 11664-4 SAE J 1545
Light Source	Full spectrum LED light source with blue enhancement
Lamp Life	5 years, 3 million times measurements
Spectroscopic Mode	Concave Grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Spectral Range	400-700nm
Wavelength interval	10 nm
Measurement Range	0~600%
Semiband Width	10 nm
Measuring Aperture	Φ12mm
color space	CIE LAB,XYZ,Yxy,LCh,βxy,DIN Lab99
Color Difference Formula	$\Delta E^*ab, \Delta E^*94, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*00, \text{DIN} \Delta E99, \Delta E \text{ DIN}6175$
Other Colorimetric Index	Flop Index, Int-Em
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	3.5-inch TFT color LCD, Capacitive Touch Screen
Measuring Time	Approx. 1 second for one angle Approx. 6 seconds for all angles

Repeatability	Spectral reflectance:Standard deviation within 0.08% Chromaticity value: ΔE^*ab 0.03 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)
Reproducibility	$\Delta E^* < 0.10$, avg on the gray tile of BCRA tile set, $\Delta E^* < 0.25$, avg on the color BCRA tile set
Inter-instrument error	0.2 ΔE^*00 (avg on reference Series II BCRA tile set)
Effect Parameters	Sparkle Grade(SG),Diffuse coarseness(DC) and Color Variation(CV)
Effect Measurement	6 angles Sparkle Grade(SG),Color Variation(CV):15as-45°,15as-30°,15as-15°,15as15°,15as45°,15as80° 15d Diffuse coarseness(DC)
Effect Repeatability	Sparkle Grade(SG) Short-term repeatability: 0.12% (10 times standard deviations) (When a color plate is measured 10 times at 10 second intervals after white calibration) Diffuse coarseness(DC) Short-term repeatability:e0.09% (10 times standard deviations) (When a color plate is measured 10 times at 10 second intervals after white calibration)
Effect Reproducibility	Sparkle Grade(SG) Reproducibility: 1.9% (10 times standard deviations) (avg on reference Series II BCRA tile set) Diffuse coarseness(DC) Reproducibility: 1.4% (10 times standard deviations)(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
Interface	USB, Bluetooth
Data Storage	1000 pcs Standards,4000 pcs Samples
Language	Simplified Chinese, Traditional Chinese, English
Calibration	Built-in white board parameters, external white board, black light trap, color board
Calibration Interval	4 hours,8 hours,24 hours,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
Dimension	195X83X128mm
Weight	About 1Kg
Power	lithium-ion battery, 3.7V,3200mAh, Continuous test 6000 times within 8 hours of full charge



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