Biuged®

One-stop
PURCHASE
Perfect price-performance ratio products
Professional
SERVICE

Spectrophotometer

BGD 558 series spectrophotometer is a high-tech product independently developed by BIUGED with our own intellectual property rights. It is a kind of powerful functions spectrophotometer with stable performance and high accuracy, and is in the leading position in the field of portable spectrophotometer. Widely used in the fields of coatings, plastic, electronics, paints, inks, ceramics, textile, garment, printing and dyeing, paper, automobile, medical, cosmetics, food industries, scientific research institutions, school and laboratories.

Under the condition of d/8 geometrical optical illumination recommended by CIE, spectrophotometer can accurately measure the SCI and SCE reflectivity data of samples (including fluorescent samples). In a variety of color spaces, we can accurately measure and express various color difference formulas and color indices. With the help of this instrument, the operator can easily realize the accurate transmission of color, and can also be used as the detection equipment of the precise color matching system. The instrument is equipped with high-end color management software, which can be directly connected to computer to achieve more functional expansion. The instrument is also widely used in the quality control of color difference of various products.

Key Characters:

- Aesthetic design perfectly combined with ergonomics structure.
- d/8 ° geometrical optics structure, comply with CIE No.15，ISO7724/1, ASTM E1164, DIN5033 standards.
- Applied combined LED light source with high life and low power consumption.
- ϕ8mm aperture, suitable for more samples; can measure SCI and SCE at the same time;
- High electronic hardware configuration: 3.5 inch TFT true color capacitive touch screen, concave grating, 256 pixel dual array CMOS detector, etc.
- USB communication mode, more adaptable;
- The standard white board with abilities of super wear-resistant, stain-resistant and stable performance.
- Large storage capacity, can save more than 10000 test data.
- Two standard observer perspectives, multiple light sources modes, a variety of color systems, conform to a variety of standard chroma indexes, meet the needs of various customers for color measurement;
- Camera view locating system, help to position fast, simply and conveniently.
- PC software with powerful extension functions.



BGD 557



BGD 558

Scan for video



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BGD 1390
Special test box for powder



BGD 1393
Micro Printer



BGD 1395
Universal Test Components

Main Technical Parameters

Ordering Information → Technical Parameters ↓	BGD 557 Spectrophotometer	BGD 558/1 Spectrophotometer	BGD 558/3 Spectrophotometer
Illuminating/Observation System	45/0 method (45 ring–shaped illumination, vertical viewing), Comply with CIE No.15	d/8° （Diffused illumination, 8° viewing angle） SCI / SCE measurement (including specular reflection and eliminating specular reflection measurement mode), including UV / exclusion UV measurement; Conform to: CIE No.15，GB/T 3978,GB 2893,GB/T 18833,ISO7724–1, ASTM E1164,DIN5033	
Integrating sphere Size	Φ58mm	Φ48mm	
Light Source	Combined LED Source；UV Light Source（Only for BGD 558/3）		
Spectroscopic Mode	---	Concave Grating	
Sensor	Silicon photodiode array	256–pixel dual–array CMOS image sensor	
Wavelength Range	400nm~700nm		
Wavelength Interval/ half-band width	10nm		
Reflectance Range	0~200%		
Illuminating/Measuring Aperture	Single Aperture; MAV (Big Aperture): ϕ8mm/ϕ10mm	Single Aperture; MAV (Big Aperture): ϕ8mm/ϕ10mm	Dual Apertures; MAV (Big Aperture): ϕ8mm/ϕ10mm; SAV (Small Aperture): ϕ4mm/ϕ5mm
Measurement Mode	SCE	SCI & SCE	
Color Space	CIE LAB，XYZ，Yxy，LCh，CIE LUV，Hunter LAB（Only for BGD 558）		
Color difference Formula	ΔE^*_{ab}, ΔE^*_{uv}, ΔE^*_{94}, $\Delta E^*_{cmc(2:1)}$, $\Delta E^*_{cmc(1:1)}$, ΔE^*_{00}, ΔE（Hunter and only for BGD 558）		
Other Chromaticity Data	WI：ASTM E313，CIE/ISO，AATCC, Hunter；YI：ASTM D1925，ASTM 313； TI：ASTM E313，CIE/ISO（Only for BGD 558） Metamerism Index MI；Color Stain；Color Fastness；		
Observer	2° /10°		
Illumination	D65，A，C，D50，D55，D75，F1，F2（CWF），F3，F4，F5，F6，F7（DLF），F8，F9，F10（TPL 5），F11（TL 84），F12（TL 83/U30）		
Display Contents	Spectral Value/Graph, Colorimetric Value, Color Difference Value/Graph, PASS/FAIL Result, Color Offset, Color Simulation（Only for BGD 557）		
Measurement Time	1.5s	About 1.2s（If measure SCI/SCE at the same time, about 3s）	
Repeatability	Spectral reflectance: MAV/SCI, standard deviation within 0.1%（400~700nm: within 0.2%）; Colorimetric value: Standard deviation within Delta E*ab 0.04 (white calibration plate measured 30 times at 5 seconds intervals after white calibration was performed.)	Spectral reflectance: MAV/SCI, standard deviation within 0.1%（400~700nm: within 0.2%）; Colorimetric value: MAV/SCI，within △E*ab 0.04（the average value of whiteboard which was measured 30 times at intervals of 5 seconds after calibration）	Spectral reflectance: MAV/SCI, standard deviation within 0.08%（400~700nm: within 0.18%）; Colorimetric value: MAV/SCI，within △E*ab 0.03（the average value of whiteboard which was measured 30 times at intervals of 5 seconds after calibration）

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Inter Instrument Agreement	MAV/SCI, within △E*ab 0.2 (Average value of 12 pcs BCRA II series color tiles)	MAV/SCI, within △E*ab 0.2 (Average value of 12 pcs BCRA II series color tiles)	MAV/SCI, within △E*ab 0.15 (Average value of 12 pcs BCRA II series color tiles)
Measurement Mode	Single Measurement, Average Measurement (2~99 times)		
Locating Mode	---	Camera view locating system	
Size	90mm × 77mm × 230mm (L × W × H)	184mm × 77mm × 105mm (L × W × H)	
Weight	About 600g		
Battery	Li-ion battery. 5000 times within 8 hours	4 pcs No.5 alkaline batteries (AA alkaline battery); or USB interface as power.	
Lamp Life	5 years, more than 3 million measurement.		
Display Screen	3.5-inch TFT true color capacitive touch screen		
Interface	USB/RS-232; Bluetooth 4.0 Dual Mode (only for BGD 558/3, compatible with 2.1)		
Data Memory	1000 Standards, 15000 Samples	1000 Standards, 20000 Samples (A data can include both SCI and SCE)	1000 Standards, 28000 Samples (A data can include both SCI and SCE)
Operating Temperature Range	0~40℃, 0~85%RH (No condensation), Elevation: Below 2000 m		
Storing Temperature Range	-20~50℃, 0~85%RH (No condensation)		
Standard Accessory	Power Adapter+Li-ion Battery (for BGD 557) or 4 pcs No.5 alkaline batteries (for BGD 558), Data line, Operating Instruction, CD-ROM (containing management software) 、White and black calibration cavity, Protective cover		
Optional Accessory	BGD 1390--- Special test box for powder; BGD 1395--- Universal test components BGD 1393--- Mini Printer		



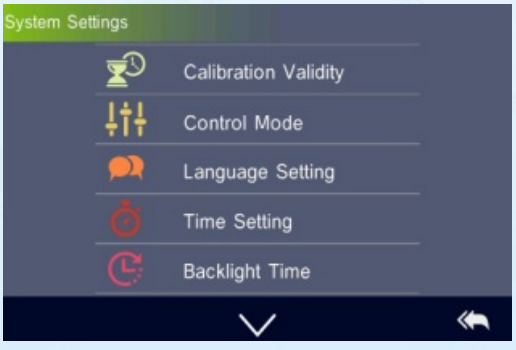
Main Menu



Sample Measurement



Color Space



System Settings

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