



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

## Spectrophotometer

**BGD 557 & 558 Spectrophotometer** uses the principle of combination LED precision spectroscopy, separates the light according to a certain wavelength interval, and adopts groups of sensor array to perform sensitive analysis. **BGD 557 & 558 Spectrophotometer** with higher accuracy is very sensitive to any colors. It not only can measure L\*ab value and delta E value accurately, but also can display spectral reflectance curve which can realize color matching function and calculate the real parameters of various color formulas.

In the R&D process, **BIUGED** scientists and engineers measured various color samples from dark to light, white to black, and other standard color boards provided by ISO (International Standardization Organization). The parameters of test results are integrating with international standards.

**BIUGED** also analyzed the parameters from Japan, American and Germany spectrophotometers. The differences of L\*ab absolute value between them are within  $\pm 1.5$ . Compared the L\*ab value between BGD 557 & 558 and Japan spectrophotometer, when measuring any color objects, the biggest L\*ab difference is within  $\pm 1.0$ . This is a breakthrough of **BIUGED** high technology which realizes to be fully compatible with international market.

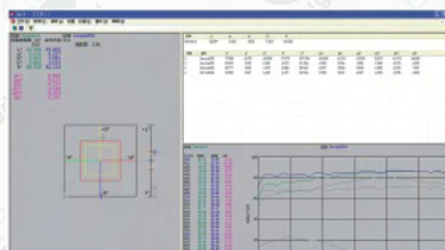
### Application

**BGD 557 & 558 Spectrophotometer** is widely used in plastic, electronic, paint, ink, textile, garment, printing and dyeing, food, medical, cosmetic, industries, scientific research institutes, schools and laboratories.

It can measure reflectance spectrum and other color index precisely. **BGD 557 & 558 Spectrophotometer** not only can help to perform color matching and color management studies, but also can control product quality management accurately. The instrument is equipped with high-end color management software which can connect PC to achieve more extension functions.

### Characters

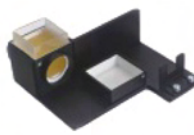
- ◆ Aesthetic design perfectly combined with ergonomics structure.
- ◆ 45° /0° or d/8° geometrical optics structure, comply with CIE, ISO, ASTM, DIN standard.
- ◆ 3.5 inch large capacitive touch screen.
- ◆ Two standard observer perspectives, multiple light sources modes, a variety of color systems.
- ◆ .....
- ◆ Large capacity storage, can save more than 10000 data.
- ◆ PC software with powerful extension functions.
- ◆ High hardware configuration with a number of innovative technologies.
- ◆ Oversized integrating sphere, more effective homogenization ray of lights and precise measurement.
- ◆ BGD 558 can work at SCI or SCE mode



Software



BGD 1390  
Special test box for powder

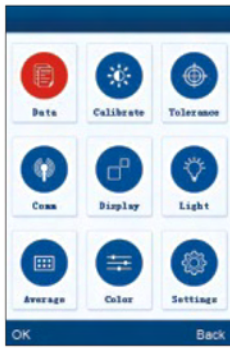


BGD 1391  
Universal Test Components

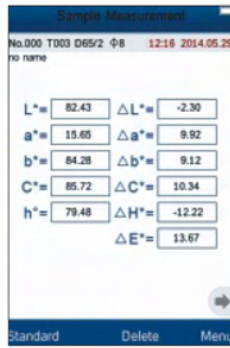


BGD 1392  
Φ8mm Extended  
Measuring Aperture

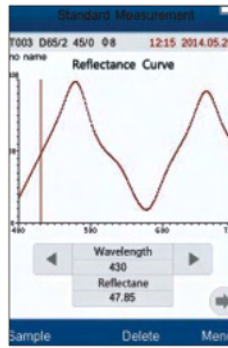




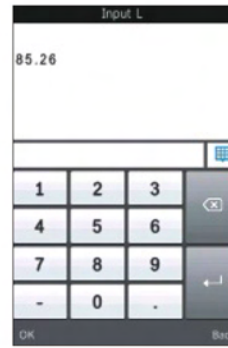
Main Menu



Sample Measurement



Spectral Reflectance Interface



Input Standard LAB



Color Space

**Main Technical Parameters**

Ordering Information → Technical Parameters ↓	BGD 557 Spectrophotometer	BGD 558 Spectrophotometer
Illumination/observation system	45° /0° (45 ring-shaped illumination, vertical viewing)	D/8° (diffused illumination, 8-degree viewing angle)
Integrating sphere Size	Φ58mm	
Light Source	Combined LED sources	
Sensor	Silicon photodiode array	
Wavelength range	400~700nm	
Wavelength interval	10nm	
Reflectance range	0~200%	
Measuring Aperture	Φ8mm	
Color Space	CIE LAB; XYZ; Yxy; Lch; CIE LUV	CIE LAB; XYZ; Yxy; Lch; CIE LUV; LAB&WI&YI
Color difference Formula	$\Delta E^*ab, \Delta E^*uv, \Delta E^*94, \Delta E^*cmc (2:1), \Delta E^*cmc (1:1), \Delta E^*00v$	$\Delta E^*ab, \Delta E^*uv, \Delta E^*cmc (2:1), \Delta E^*cmc (1:1), \Delta E^*94, \Delta E^*cmc (l:c), CIE2000\Delta E^*00, \Delta E (h)$
Other Chromaticity Data	WI(ASTM E313, CIE/ISO, AATCC, Hunter), YI(ASTM D1925, ASTM 313), TI(ASTM E313, CIE/ISO), Metamerism Index (Mt), Color Stain, Color Fastness	
Observer	2° /10°	
Illuminant	D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF) , F8, F9, F10 (TPL5) F11 (T184), F12 (TL83/U30)	D65, A,C,D50, D55, D75, F2, F6, F7, F8, F10, F11, F12
Display Data	Spectral Value/Graph, Colorimetric Value, Color Difference Value/Graph, PASS/FAIL Result, Color Offset, Color Simulation, color index setting( $\Delta E^*94, \Delta E^*cmc, \Delta E2000$ ), tolerance prompt,reverse prompt, time setting, language setting, restore factory setting	Spectral Value/Graph, Colorimetric Value, Color Difference Value/Graph, PASS/FAIL Result, Color Offset, Color Simulation
Measurement Time	1.5s	
Repeatability	Spectral Reflectance: standard deviation within 0.1% ( 400~700nm: within 0.2% ) Colorimetric Value: Standard deviation within Delta E*ab 0.04 ( Measurement conditions: white calibration plate measured 30 times at 5 seconds intervals after white calibration was performed. )	
Inter Instrument Agreement	Within Delta E*ab 0.2 (Average for 12 BCRA Series II color tiles)	
Dimension/Net Weight	90 × 77 × 230mm(L × W × H)/600g	
Battery	Li-ion battery. 5000 times within 8 hours	
Lamp Life	5 years, more than 1.6 million measurements	
Display Screen	TFT 3.5inch, Capacitive Touch Screen	
Interface	USB/RS-232	
Data Memory	1,000 Standards, 15,000 Samples	
Standard Accessory	Power Adapter, Li-ion Battery, Operating Instruction, CD-ROM (containing management software), Data Line, White and Black Calibration Cavity, Protective Cover and Wrist Strap	
Optional Accessory	Universal Test Components, Micro Printer, Special test box for powder	
Others	Provide complete spectrum reflectance curve, Input L, a, b value manually	