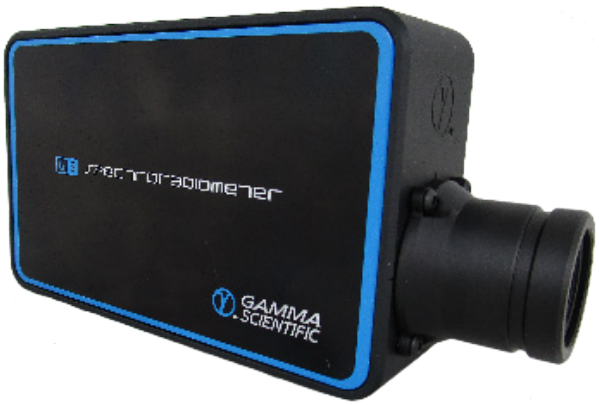
GS-1160B Portable Spectroradiometer

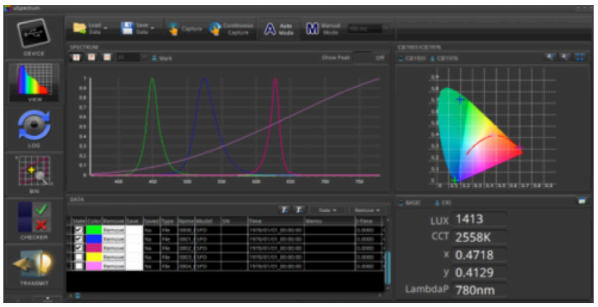


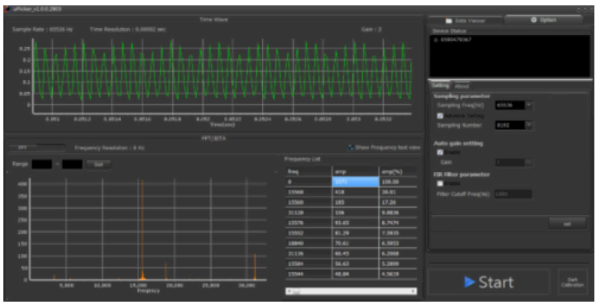
The GS-1160B portable spectroradiometer is a compact, high-speed and light weight spectrometer / flicker meter suitable for color and intensity measurement of all display types including LCD, LED, OLED and Quantum Dot displays.

User interface options include USB and RS-232. Along with an available API command set for custom test suites, this desktop version of our handheld unit is ideally suited to applications in a laboratory or industrial setting. It is supported by LightTouch uSpectrum and uFlicker software for color and flicker analysis.

Accurate and Repeatable Display Measurement

- Measures color, chromaticity, gamma, white balance, contrast, flicker and uniformity
- Luminance measurement from 0.05 to 5,000 cd / m^2
- Color measurement in chromaticity including x/y/u'/v', XYZ, x10, y10, u10 and v10
- Wide range of flicker measurement, including JEITA, VESA, Contrast (min/max), rms, time domain and FFT
- Full spectral data capture and graphical display
- Measurement speeds ranging from 100 µsec to 5 seconds
- Automatic dark calibration





In addition to our exceptional technical and functional capabilities, Gamma Scientific is ISO/IEC 17025 accredited by NVLAP (NVLAP lab code 200823-0).

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GAMMA SCIENTIFIC

Spectrum			
Sensor	CMOS linear image sensor		
Wavelength Range	380 to 780 nm		
Wavelength Data Increment	1 nm		
Acceptance Angle	± 1°		
Wavelength Reproducibility	± 1 nm	(assumes stable input light source)	
Display Range	0.001 to 5,000 cd/m²		
Luminance [1] [From 0.05 to 5,000 cd/m²]	Accuracy	± 5% from 100 to 5,000 cd/m²	
		± 5% from 0.2 to 100 cd/m²	
		± 5% from 0.05 to 0.2 cd/m²	
	Repeatability (2σ)	± 0.2% from 100 to 5,000 cd/m²	
		± 0.5% from 0.2 to 100 cd/m²	
		± 0.8% from 0.05 to 0.2 cd/m²	
Color [1] [From 0.05 to 5,000 cd/m²]	Accuracy	± 0.002 in CIE 1931 x,y for white from 100 to 5,000 cd/m²	
		± 0.003 in CIE 1931 x,y for white from 0.2 to 100 cd/m²	
		± 0.005 in CIE 1931 x,y for white from 0.05 to 0.2 cd/m²	
	Repeatability (2σ)	± 0.0005 in CIE 1931 x,y for white from 100 to 5,000 cd/m²	
		± 0.001 in CIE 1931 x,y for white from 0.2 to 100 cd/m²	
		± 0.002 in CIE 1931 x,y for white from 0.05 to 0.2 cd/m²	
Stray Light	-25 dB maximum	(550 ± 40nm monochromatic source)	
Polarized Error	< 2%		
Integration Time Range	100 µsec to 5 sec	(fast mode / normal mode)	
Digital Resolution	16 bit		
Measuring Capabilities	Luminance (cd/m2) Δx, Δy, Δu', Δv' Excitation purity Peak wavelength (λp)	Correlated color temp (CCT) Delta UV (Duv) CRI and Ra (R1 to R15) Peak Wavelength Value (λpV)	CIE 1931 chromaticity coordinates Dominant wavelength (λd) Spectral power distribution (SPD) mW/m² Integration time (I-Time) Scotopic & photopic ration (S/P)

Flicker			
Measurement Range	≥ 5 cd/m2		
Sampling Rate	100 kHz		
Contrast [2]	Accuracy: ± 1% (± 2% at 60Hz)	Reproducibility: 1% (20 to 65 Hz)	
JEITA [2]	Accuracy : ± 0.5 dB	Reproducibility: 0.3 dB	
Measuring Capabilities	Min/max, avg, rms & frequency	JEITA and VESA	Flicker Index and % (IES)

Features				
Capture Function	One-time or continuous			
Operation Mode	RS-232 or USB			
Integration Mode	Auto or Manual			
Automatic Dark Calibration	Auto mode			
Measuring Modes	Basic Browser	Spectrum Flicker	CIE 1931 Chromaticity Frequency	CIE 1976 Chromaticity Option

System Configurations		
External Power	Adapter (included) with USB connector	
Data Interface	Mini USB port (USB 2.0)	
Dimensions	204 mm (8 in) H x 90 mm (3.6 in) W x 45 mm (1.8 in) D	620 g (1.4 lbs)
Language Options	English, Traditional Chinese, Simplified Chinese, Japanese	

1. At 23 ± 2° C and relative humidity ≤ 50%
2. 30 Hz AC/DC 10% sine wave unless otherwise specified

Specifications are subject to change without notice.

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