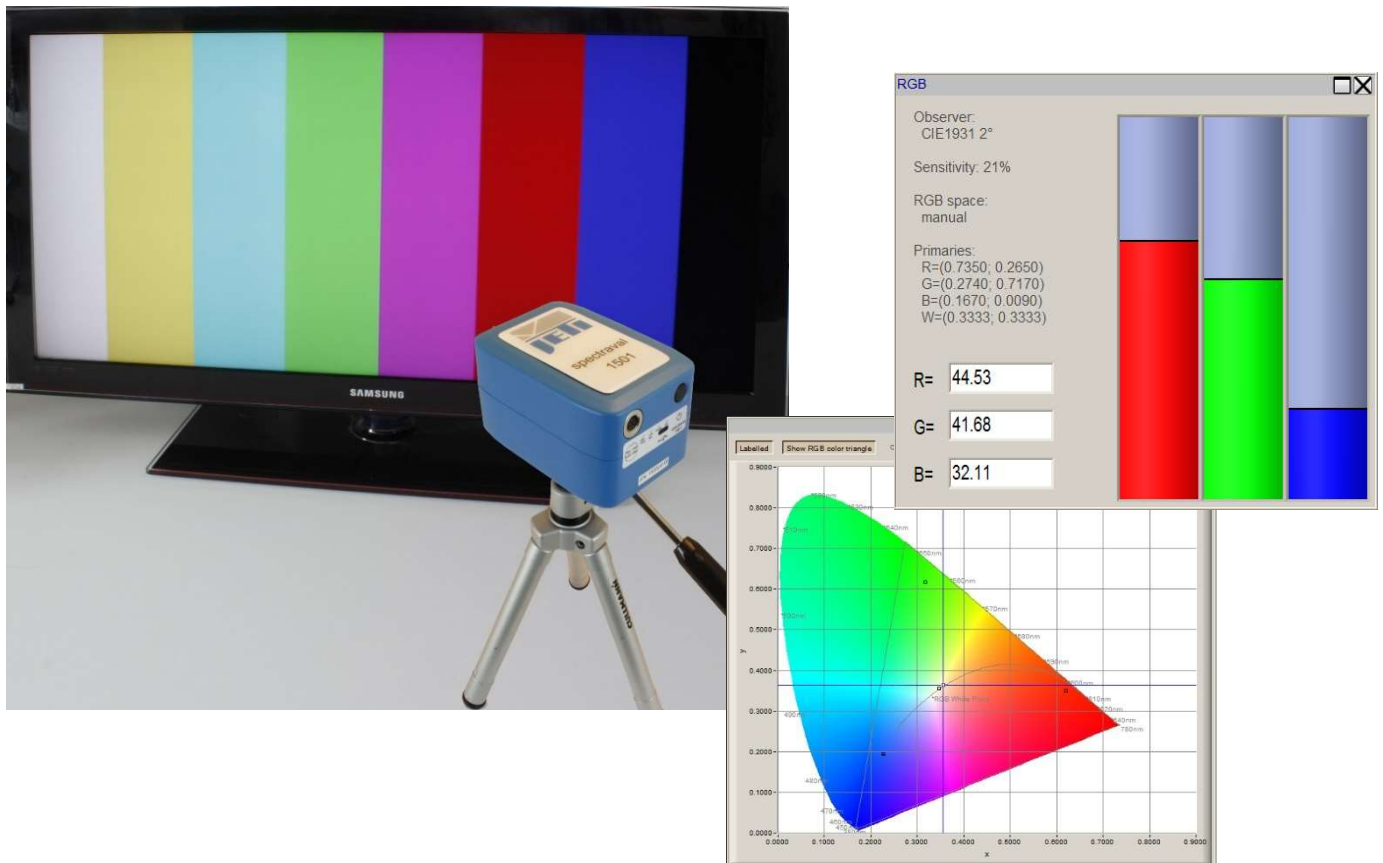


spectraVal 1501

VIS Spectroradiometer

spectraVal 1501 is a compact spectroradiometer for the visible spectral range. It can be used for spectral Radiance measurements with a viewing angle of 1.8°. The actual measuring area is marked by a red circle.

spectraVal 1501 comes with the radiometric software JETI LiVal (demo version see: www.jeti.com), but can be used with special programs for monitor calibration (CalMAN, LightSpace CMS, ChromaPure).



Advantages:

- Compact solution
- Fast measurement
- Precise results due to high quality spectrograph and NIST traceable calibration
- Comfortable handling due to Bluetooth interface
- Measurement of source repetition rate

Examples for applications:

- Calibration of broadcast monitors
- Color adjustment of digital projectors
- spectraVal 150HiRes for RGB Laser projectors
- Color characterization of LED displays
- Color measurement of video walls



Specifications

Optical parameters

Spectral range	380 ... 780 nm 380 ... 1000 nm (version: spectraval 1501NIR)
Optical bandwidth	4.5 nm 2 nm (version: spectraval 1501HiRes) ¹
Wavelength resolution	1 nm
Digital electronic resolution	16 bit ADC
Viewing angle	1.8°
Measuring distance/ diameter	20 cm – Ø 6 mm; 100 cm – Ø 31 mm

Measuring values

	Spectral Radiance, Luminance, total Radiance x,y, u',v', CCT, color purity, CRI, RGB and others Spectral Irradiance/ Integral Irradiance/ Illuminance
With optional diffusor	

Measuring ranges and accuracies

Luminance measuring range	0.2 ... 180 000 cd/m ² (Illuminant A) 0.2 ... 140 000 cd/m ² (typical warm white LED)
Luminance accuracy	± 4.4 % (Illuminant A @ 100 cd/m ² , k=2)
Luminance repeatability	± 1 % (Illuminant A)
Chromaticity accuracy	± 0.002 x, y (Illuminant A, k=2)
Color repeatability	± 0.0005 x, y (Illuminant A)
CCT repeatability	± 20 K (Illuminant A)
Max. Max. wavelength error	± 0.2 nm (HgAr line source) (± 0.3 nm with spectraval 1501HiRes)
Polarization error f8	< 2 %

Other technical data

Dispersive element	Imaging grating (flat field)
Light receiving element	CCD line array 2048 pixels (binned) (4096 pixels on spectraval 1501HiRes)
Power supply	Battery and USB powered
Interfaces	USB 2.0 fullspeed Bluetooth, alternatively LAN
Dimensions	140 mm x 80 mm x 70 mm
Weight	400 g
Operating conditions	Temperature 10 ... 40 °C Humidity < 85 % relative humidity at 35 °C
Accessories (included)	PC software JETI LiVal for Windows 8.1/ 10, operating instructions and software development kit on BT stick USB cable, battery charger and trigger connector Calibration certificate Tripod, carrying bag
Calibration	NIST traceable
Recommended interval	1 year

¹ About 4 times higher measuring time compared to standard version