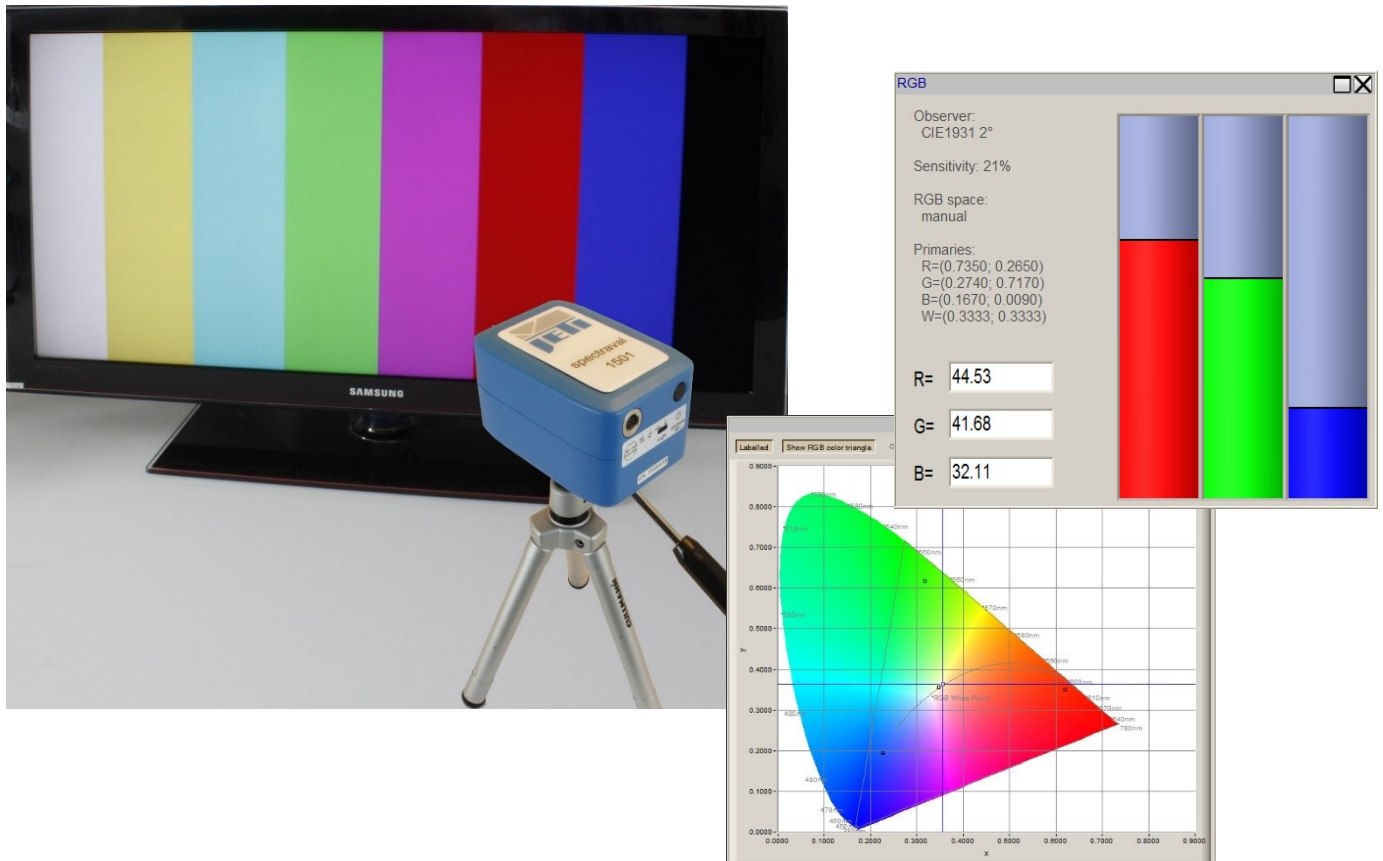


spectraval 1501 VIS Spectroradiometer

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: http://jeti.com/Support/Software/JETI_LiVal), 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 1501-HiRes 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 1501-NIR)
Optical bandwidth	4.5 nm 2 nm (version: spectraval 1501-HiRes) ¹
Wavelength resolution	1 nm
Digital electronic resolution	16 bit ADC
Viewing angle	1.8°
Measuring distance/ diameter (measured from front end of the device)	20 cm – Ø 8 mm; 100 cm – Ø 33 mm

Measuring values

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

Measuring ranges and typical measuring uncertainties (according to CIE TN 009:2019)

Luminance measuring range	0.2 ... 180 000 cd/m ² (Illuminant A) 0.2 ... 140 000 cd/m ² (typical warm white LED)
Luminance uncertainty	± 4.4 % (Illuminant A @ 100 cd/m ² , k=2)
Luminance repeatability	± 1 % (Illuminant A)
Chromaticity uncertainty	± 0.002 x, y (Illuminant A, k=2)
Color repeatability	± 0.0005 x, y (Illuminant A)
CCT repeatability	± 20 K (Illuminant A)
Max. wavelength error	± 0.2 nm (HgAr line source)
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 1501-HiRes)
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, Tripod, carrying bag and battery charger Calibration certificate
Calibration	NIST traceable
Recommended interval	1 year

Vers. July 2021

¹ About 4 times higher measuring time compared to standard version