Technical Note 28
When should I select spectraval 15x1 instead of specbos 1211-2?

spectraval 1501 is the replacement of **specbos 1201**. It covers the same spectral range (VIS) but is about ten times more sensitive. Therefore, it can be used for low light applications in the same manner as **specbos 1211**. **spectraval 1501** is intended for Radiance mode measurements only, a diffusor must be ordered separately (ACC 032). If a stand-alone solution is needed, then **spectraval 1511** can be used. It has the identical parameters as **spectraval 1501** but is equipped with display and SD card.

When I should use **spectraval** instead of **specbos 1211**? Please consider the following aspects:

- If a wavelength range beyond visible is not needed (version of **spectraval 15x1** up to 1 µm is planned)
- If no accessory than a diffusor is needed (currently only a diffusor is available for spectraval)
- If a stand-alone operation is needed (**spectraval 1511** is equipped with display and SC card slot)
- If a wireless connection is preferred (spectraval is equipped with Bluetooth interface by default)

The following table shows a comparison of the major parameters of all three devices:

Parameter	spectraval 1501/ 1511	specbos 1211-2	specbos 1201 (not available)
Wavelength range	380 ... 780 nm NIR version: 350 … 1000 nm	350 ... 1000 nm UV version: 230 nm … 1000 nm	380 ... 780 nm
Optical resolution (FWHM)	4.5 nm HiRes version: 2 nm	4.5 nm	5 nm

Measuring range luminance (Illum. A/ typical warm white LED spectrum)	0.2 ... 180 000 cd/m^2 / 0.2 … 140 000 cd/m^2 (higher values with optional diffusor)	0.2 ... 150 000 cd/m^2 / 0.2 … 100 000 cd/m^2 (higher values with optional diffusor)	2 ... 70 000 cd/m^2 / 2 … 50 000 cd/m^2
Measuring range illuminance (Illum. A/ typical warm white LED spectrum)	1 … 1 800 000 lx / 1 … 1 500 000 lx (with optional diffusor)	1 … 1 800 000 lx / 1 … 1 500 000 lx	20 … 500 000 lx / 20 … 370 000 lx
Viewing angle Radiance mode	1.8 °	1.8 °	1.8 °
Measuring time on grayscale pattern of a monitor	~ 0.4 s @ 100 cd/m^2 ~ 3 s @ 5 cd/m^2	~ 0.5 s @ 100 cd/m^2 ~ 4 s @ 5 cd/m^2	~ 2.5 s at 100 cd/m^2 ~ 30 s at 5 cd/m^2
Interfaces	USB and Bluetooth Optional: LAN instead of Bluetooth	USB Optional: additional Bluetooth, RS232 or LAN	USB
Software	JETI LiVal	JETI LiVal	JETI LiVal
Power supply	USB Battery USB power supply	USB LAN: 9V power supply Bluetooth: battery, 9 V power supply	USB
Weight	1501: 400 g 1511: 500 g	450 g	350 g
Dimensions	140 mm x 80/ 115 mm x 70 mm	180 mm x 82 mm x 53 mm	140 mm x 58 mm x 34 mm

Please note: specbos 1201 is no longer available. The parameters are only listed in the table to help customers who own a device to compare more easily.

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