

GL SPECTIS 6.0

Rack mounted laboratory grade spectrometer module.

With the new GL SPECTIS 6.0, we expand our high-end spectrometers into mass production and large laboratory setups for high speed measurement of SSL products (IESNA LM-79-08, CIE S 025/E:2015), LED wafers, large streetlamps and luminaries.



Features:

- Hardware & Software trigger, USB 2.0 connection, 16 bit, A/D conversion
- Can be combined with current sources, powers supplies and TEC controllers
- A variety of spectral ranges available from 200 – 1050 nm
- Temperature monitored sensor with automatic dark current correction
- Very high resolution: ~2.5 nm optical and 0.5 nm data point
- OSR system for Stray Light Reduction

APPLICATION

Application High precision laboratory and industrial measurements

LED MEASUREMENT

Illuminance (lux)*	5 lx – 150 000 lx	Standard diffusor
Luminance [cd/m ²]	Available with optional GL OPTI PROBE	
Luminous flux [lm]	Available with optional GL OPTI SPHERE	
Luminous intensity [cd]	Calculated in SPECTROSOFT	
Illuminance class	Class B – DIN 5032-7; Class A on demand Class AA – JIS C 1609-1:2006	
Tolerance – cosine response (f2')	< 3 % (1,9 %)	
Spectral range**	340 – 850 nm (VIS) 200 – 800 nm (UV-VIS) 380 – 1050 nm (VIS-NIR) 200 – 1050 nm (UV-VIS-NIR)	GL SPECTIS 6.0 VIS GL SPECTIS 6.0 UV-VIS GL SPECTIS 6.0 VIS-NIR GL SPECTIS 6.0 UV-VIS-NIR

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Light quality control

Technical Sheet

GL SPECTIS 6.0

CALCULATED VALUES

CRI – Color rendering index according to CIE	Ra, R1-R14
CRI according to TM-30-15	R15
CCT – Correlated color temperature according to CIE 13.3	✓
Color peak	✓
Color dominant	optional with GL SPECTROSOFT
Color position coordinates [x,y] according to CIE 1931	✓
Color position coordinates [u',v'] according to CIE 1976	✓
Color position coordinates [u,v] according to CIE 1960	✓
Color coordinate error	optional with GL SPECTROSOFT
Metameric index	optional with GL SPECTROSOFT
Binning	optional with GL SPECTROSOFT
Assessment in accordance with ISO 3664	optional with GL SPECTROSOFT

PHOTOMETRY / RADIOMETRY

Sensor	Back-thinned type CCD image
Number of pixels	2048
Physical resolution / datapoint interval	~ 0.5 nm
Wavelength reproducibility	0.5 nm
Integration time	10 ms – 10 s
A/D converter	16 bit
Signal-to-noise ratio	1000:1
Stray light	2*10 E-3
Optical resolution / FWHM	2.5 nm
Radiometric accuracy**/***/****	6 % within range 200 – 220 nm 5 % within range 220 – 500 nm 4 % within range 500 – 1050 nm
Flicker compensation	✓
Temperature sensor and dark current compensation	✓
Uncertainty of color coordinates***	+ – 0.0015
Automatic accessory detection	✓
Operating System	Android
Power adapter	Power supply unit 100...240 V (50/60 Hz) 0.15 A
Operating temperature	5 – 35 °C
Dimensions [H x W x D]	2U 19" 480 mm x 262 mm x 88.9 mm
Weight	2500 g

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INTERFACE & MEMORY

USB	USB 2.0
Trigger	Pluggable terminal block 4-pin
SD Card slot	microSD
Measurement result storage	Auto / 4 GB microSD
Data format	XML
Fiber optic connector	Optional SMA905D

DISPLAY & OPERATION

Display	3.5" color LCD (240 x 320px)
Operation	Touch Screen, PC / Notebook

SOFTWARE

Software	GL SPECTROSOFT Basic / Pro / Lab /
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ORDERING INFORMATION

Case	✓
USB cable	✓
Power supply	✓
Leash	✓
Display protection foil	✓
4GB microSD card	✓

Part number:	GLX 6.0 no. 173906	GL SPECTIS 6.0 touch VIS
	GLX 6.0 no. 173914	GL SPECTIS 6.0 touch UV-VIS
	GLX 6.0 no. 173922	GL SPECTIS 6.0 touch VIS-NIR
	GLX 6.0 no. 173930	GL SPECTIS 6.0 touch UV-VIS-NIR

- * Dynamic range is spectrum related and should be calculated separately for any light source. Estimated dynamic range for typical 4000 K white LED. Range estimated for optical system made to default specification. Alterations of that are often possible. Please consult technical support if you are looking for specific parameters.
- ** Spectral range of the sensor. Actual spectral range of system may be reduced due to limitations of used optical accessory.
- *** Absolute measurement uncertainty immediately after calibration. The expanded uncertainty corresponds to a coverage probability of 95 % and the coverage factor $k = 2$. Parameters valid in laboratory conditions 25deg C, relative humidity 45%.
- **** Applies only within the spectral range of the given model.

Note: Instrument, firmware and software specification are subject to change without prior notice. All information included in GL OPTIC datasheets and product information available in any form are carefully prepared and included information believed to be true. Please note that discrepancies may occur due to text and/or other errors or changes in the available technology. We advise to contact GL Optic before the use of the product to obtain the latest product specification.

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