

RadOMA Series Spectroradiometers

PRODUCT SUMMARY

The RadOMA Series Platform is a durable opto-electrical design proven in hundreds of facilities worldwide. Experience the RadOMA advantage offering advanced, high-speed spectroradiometers that combine the leading-edge sensitivity of a backside-thinned CCD detector with Gamma Scientific industry-renowned OMA optical multi-channel analyzer opto-electrical platform.

The RadOMA Series features millisecond measurement speed, exceptional low-light measurement capability and superior blue-light region sensitivity at least two times greater than conventional front-illuminated CCD-based systems. The RadOMA is ideally suited for applications including LED color & luminance, flat panel display, retroreflected color, reflectance and transmittance and light source measurements.

Four models cover a very wide spectral range from ultraviolet to the near infrared: 200 to 780 nm (model GS-1290-0); 260 to 890 nm (GS-1290-1); 300 to 1100 nm (GS-1290-2); or 380 to 800 nm (GS-1290-3).

As with all Gamma Scientific's products, each system is completely modular and interchangeable, so it can be easily upgraded or customized to fit your needs. Automatic Dynamic Range Optimization ensures system electrical gains are always set for the best results. Interfacing the RadOMA via USB 2.0 to Gamma Scientific's powerful Windows-based Light Touch spectral data acquisition and analysis software package rounds out a comprehensive solution.

Best of all, RadOMA systems come with factory NIST-traceable calibration and can be self-calibrated by the user, so they never have to be returned to the factory for calibration. Calibrations take just seconds using a calibrated standard source.



FEATURES

- Thermo-Electric cooled, back-thinned CCD Array
- Exceptional accuracy via high-resolution bandwidth coverage
- Robust and repeatable measurements
- Superior wavelength and color accuracy via low thermal expansion coefficient materials
- Near-real-time measurement
- High resolution: up to 0.4 nm/pixel
- Spectral ranges: 200-780, 260-900 nm, 300-1100 nm, and 380-810 nm
- USB2.0 interface
- Windows-based control/analysis software
- NIST-traceable accuracy.
- Self-calibrate (**System never has to be returned for calibration**)



GAMMA SCIENTIFIC

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RadOMA-LED Spectral Measurement System

SPECIFICATIONS

Detector and Wavelength Specifications				
Model Numbers	GS-1290-0	GS-1290-1	GS-1290-2	GS-1290-3
Spectral Range (nominal)	200-780 nm	260-900 nm	300-1100 nm	380-810 nm
Wavelength Resolution	0.6 nm	0.6 nm	0.9 nm	0.4 nm
Spectral Bandwidth	Built-In User Selectable Half-Power Bandwidth (HPBW)			
	10 nm	10 nm	20 nm	10 nm
	5.0 nm	5.0 nm	10 nm	5.0 nm
	2.5 nm	2.5 nm	5.0 nm	2.5 nm
	1.8 nm	1.8 nm	2.7 nm	1.4 nm
	1.2 nm	1.2 nm	1.8 nm	1.0 nm
Wavelength Repeatability	0.02 nm	0.02 nm	0.03 nm	0.02 nm
Wavelength Accuracy	< 1 nm	< 1 nm	< 1 nm	< 0.5 nm
Specifications Below Apply to All Models				
Detector	1044 x 128 back-thinned CCD array			
Calibration	User-Calibration: System never has to be returned to the factory			
Stray Light	Less than 1×10^{-4} (at 8 times the HPBW from HeNe Laser Line)			
Shutter	Electric Operation			
Electrical Resolution	16 Bit			
Dynamic Range (single scan)	64,000:1			
Detector Hermetic Seal	Standard			
Detector Temperature	0° C			
Computer Interface	USB 2.0			
Control Software	Light Touch RadOMA® for Windows® or stand-alone DLL package for customized software integration			
Dimensions:				
Height	11.8" (29.9 cm)			
Width	6" (15.1 cm)			
Length	12.1" (30.8 cm)			
Weight	10 lbs (4.6 kg)			



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