

## SuperGamut<sup>™</sup> UV-SWIR Spectrometer

*Covering anywhere from 190nm to 2500nm Wavelength Range* 

### **Applications:**

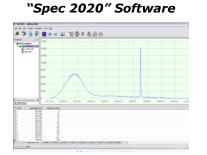
- Biochemical
- Chemical Analysis
- Color / Dyes
- Dissolution
- Environmental
- Multicomponent analysis
- Proteins
- QA/QC of mixtures
- Small volume samples
- Sunscreens

BaySpec's **SuperGamut**<sup>™</sup> series UV-SWIR spectrometers are designed to meet real-world challenges for best-in-class performance, long-term reliability, and compact size. Benefiting from experience manufacturing high-volume spectral monitoring devices for the telecommunications industry, BaySpec's spectral devices utilize low-cost field proven components. For the first time in instrumentation history an affordable, accurate and ruggedized spectral device is a reality.

The **SuperGamut<sup>™</sup>** UV-SWIR Series employs highly efficient Volume Phase Gratings (VPG<sup>®</sup>) as the spectral dispersion element, thereby providing high-speed parallel processing and continuous spectrum measurements. With multiple spectal engines included, The **SuperGamut<sup>™</sup>** UV-SWIR Series provide high resolution spectral data through a wide spectral range of 190 to 2500nm while maintaining an outstanding signal-to-noise ratio.

Key Features:

- Ruggedized and reliable with no moving parts
- Compact size and high efficiency
- Wide spectral range of 190nm to 2500nm
- Outstanding optical throughput is achieved with f/2 design
- Real-time spectral data acquisition with fast milli-sec response time
- Factory calibrated for long-life and low-maintenance



BaySpec's "Spec 2020" software included, a Windows-based package with flexible data acquisition, processing and output functionality

BaySpec SDK, a software development kit for new applications development and integration into to your host software systems.



BaySpec, Inc. 1101 McKay Drive San Jose, CA 95131 USA

### Tel: +1 (408) 512-5928 Fax: +1 (408) 512-5929 Web: www.bayspec.com Email: sales@bayspec.com



# SuperGamut<sup>™</sup> UV-SWIR Spectrometer

Pervasive Spectroscopy

Covering anywhere from 190nm to 2500nm Wavelength Range

Parameter	Specification		
PERFORMANCE			
Wavelength Range	190-1100nm	900nm-1700nm	1680-2500nm
Resolution	~1-20 nm, slit dependent	~5-20 nm, slit dependent	~6-20 nm, slit dependent
Stray Light	0.05%	0.05%	0.05%
Wavelength Calibration	Factory Calibrated	Factory Calibrated	Factory Calibrated
Integration Time	5 ms to 60 seconds	20 µs to 30 seconds	20 µs to 400ms
Dimensions	800 (L) x 600 (W) x 200 (H) mm <sup>3</sup>		
Weight	8 kg		
OPTICS			
f/ Number	f/2		
Grating	Holographic Grating		
Entrance Aperture Slit / Fiber Optic	Slit: 10µm, 25µm, 50µm, 100µm, or none Fiber optic: SMA, or custom design		
DETECTOR SPECS		· · · · ·	
Detector Array	2048 X 64 Active Pixels	256 Pixels	256 Pixels
Quantum Efficiency @λpk Min.	75%	70%	70%
Response Non-uniformity	$\pm 3\%$ typical, $\pm 10\%$ max	±10%	±10%
Readout Noise	10 Counts RMS typical	10 Counts RMS typical	65 Counts RMS typical
A/D Converter	16bit	16bit	16bit
Power	Powered through USB	Powered through USB	Powered through USB
COMPUTER			
Data Ports	USB 2.0		
Trigger Modes	Software Controlled		
Software	Windows 7/8 (32-bit and 64-bit).		

\*specifications subject to change

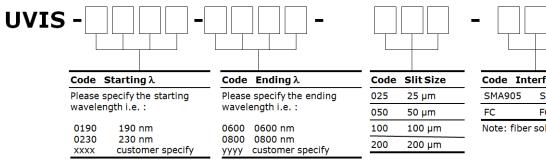


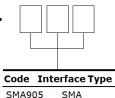
**Fiber Bundle Option** 



**Optional Light Source** 

### **Part Number Selection:**





SMA FC

Note: fiber sold separately



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