

## Applications:

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

BaySpec's **SuperGamut™** series UV-NIR 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.

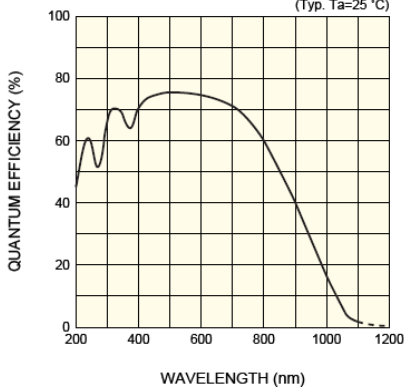
The **SuperGamut™** UV-NIR Series employs a highly efficient concave holographic diffraction grating as the spectral dispersion element and an ultra sensitive CCD array detector as the detection element, thereby providing high-speed parallel processing and continuous spectrum measurements. As an input, the device uses a fiber optic input or slit optics arrangement based on customer preferences. The signal is spectrally dispersed with the holographic grating and the diffracted field is focused onto a CCD array detector. The control electronics read out the processed digital signal to extract required information. Both the raw data and the processed data are available to the host.

## Key Features:

- Ruggedized and reliable with no moving parts
- Compact size and high efficiency
- Outstanding optical throughput is achieved with f/3 design
- Real-time spectral data acquisition with fast milli-sec response time
- Factory calibrated for long-life and low-maintenance

### Quantum Efficiency (%)

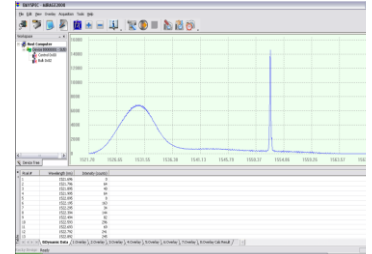
(Typ. Ta=25 °C)



Parameter	Specification
<b>PERFORMANCE</b>	
Wavelength Range	190-1080nm or <b>any fraction</b> of range customer specified, i.e.: 190-800 nm; 300-900nm; 400-800nm, 600-1100 nm
Resolution	~1-20 nm, slit dependent
Stray Light	0.05%
Wavelength Calibration	Factory Calibrated
Integration Time	10 ms to 60 seconds
Dimensions	162 (L) x 105 (W) x 60 (H) mm <sup>3</sup>
Weight	800 g
<b>OPTICS</b>	
f/ Number	f/3
Grating	Concave Holographic
Entrance Aperture Slit / Fiber Optic	Slit: 25µm, 50µm, 100µm, or none Fiber optic: SMA, or custom design
<b>DETECTOR SPECS</b>	
Detector Array	2048 X 64 Active Pixels
Quantum Efficiency @λpk Min.	75%
Response Non-uniformity	±3% typical, ±10% max
Readout Noise	6 electrons/scan RMS typical
A/D Converter	16bit
Power	Powered through USB
<b>COMPUTER</b>	
Data Ports	USB 2.0
Trigger Modes	Software Controlled
Software	Windows 2000/XP or later

\*specifications subject to change

### "Spec 2020" Software



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

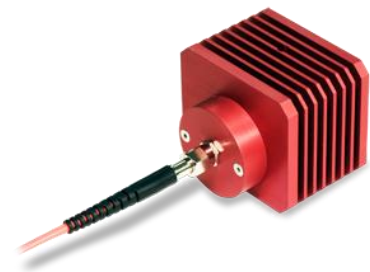
BaySpec SDK, a software development kit for new applications development and integration into to your host software systems.



OEM Integration

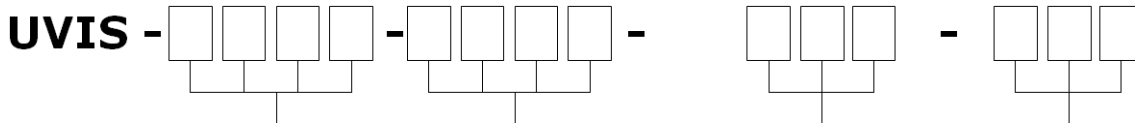


Fiber Bundle Option



Optional Light Source

### Part Number Selection:



Code	Starting λ
Please specify the starting wavelength i.e. :	
0190	190 nm
0230	230 nm
xxxx	customer specify

Code	Ending λ
Please specify the ending wavelength i.e. :	
0600	0600 nm
0800	0800 nm
yyyy	customer specify

Code	Slit Size
025	25 µm
050	50 µm
100	100 µm
200	200 µm

Code	Interface Type
SMA905	SMA
FC	FC

Note: fiber sold separately

