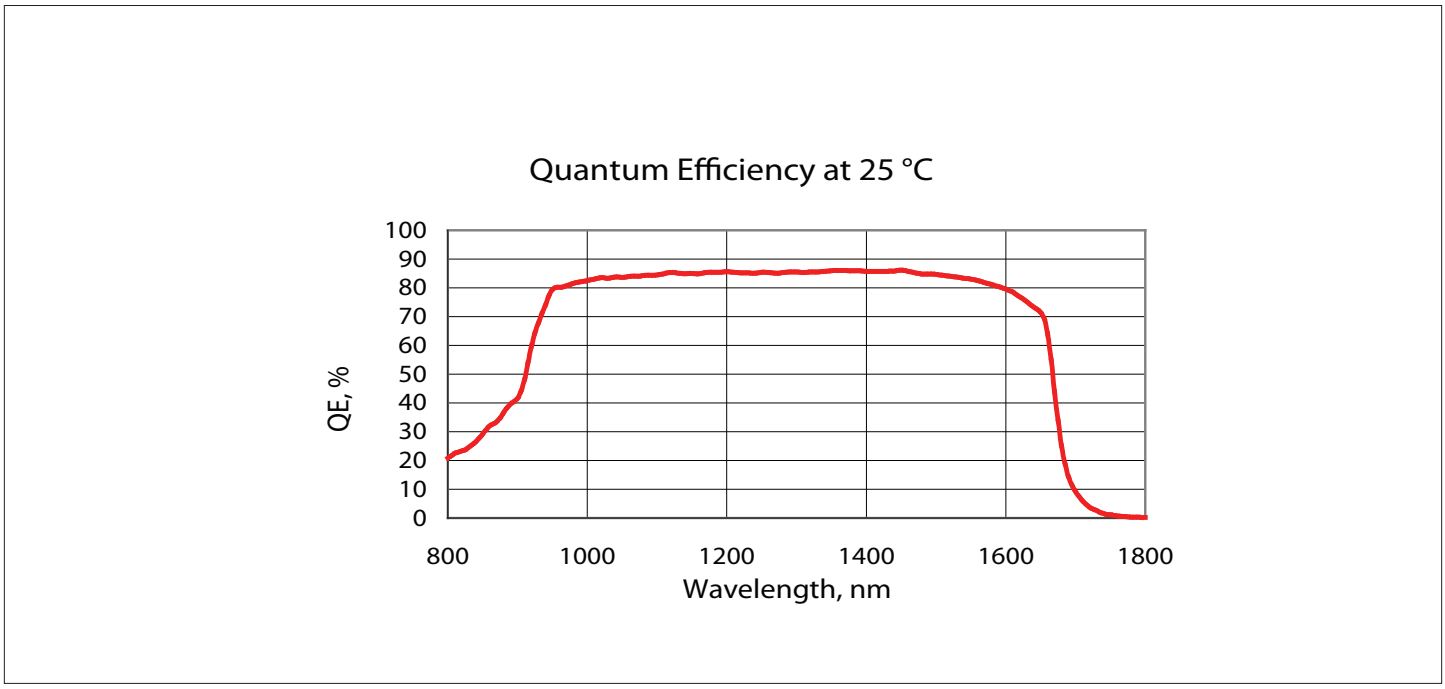
HORIBA Scientific

Symphony Linear IGA

Designed for use in the NIR, applications include NIR Raman, photoluminescence, emission, and absorbance spectroscopy.

HORIBA Scientific's Symphony InGaAs arrays are the ideal choice for demanding, low light level measurements in the near infrared (NIR) spectral region up to 1.7 µm. Available in 512 x 1(25 x 500 µm), 512 x 1(50 x 500 µm), and 1024 x 1(25 x 500 µm) pixel formats, these InGaAs detectors provide high resolution while maintaining full well capacity. Symphony IGAs feature a 16-bit dynamic range, are deep thermoelectically cooled and use a mechanical shutter for dark background subtraction. Detectors designed to provide sensitivity from 1 µm to 2.2 µm are also available.

Feature	Spectroscopy Benefits
Cryogenic Cooling	Cools the array to -103 ^{0}C to minimize dark noise
Excellent Linearity	High accuracy of data over the full dynamic range
Ethernet Connection to host PC	Easy to use; interfaces to PC notebooks and desktops with 100% data integrity
High Sensitivity (HiS) and High Dynamic Range (HiD) Acquisition Modes	Software selection of acquisition mode to optimize the detector for best signal-to-noise ratio
HORIBA Scientific's SynerJY® Software	Complete control of a Symphony IGA and HORIBA Scientific Spectrograph system with full analysis capabilities
LabVIEW VIs and SDK Available	Flexible software to integrate a Symphony IGA into existing apparatus or as an OEM component



Specifications*

Format		512 x 1 (25 x 500)	512 x 1 (50 x 500)	1024 x 1 (25 x 500)
Wavelength Range	Ambient Temp. (25 ^{0}C)	800 nm – 1700 nm		
	Operating Temp. (-103 ^{0}C)	800 nm – 1650 nm		
Operating Temperature (Typical)		-103 ^{0}C		
		Typical		
Readout Noise	HiS Mode (High Gain)	0.5 – 0.8 ke$^-$ rms		
	HiD Mode (Low Gain)	5 – 8 ke$^-$ rms		
Full Well Capacity	HiS Mode (High Gain)	5 Me$^-$		
	HiD Mode (Low Gain)	130 Me$^-$		
Dark Current		2.5 ke$^-$/p/s		
Response Nonuniformity		± 10 %	± 5 %	± 10 %
Response Nonlinearity		< ± 1%		
Gain (Nominal)	HiS Mode (High Gain)	75 e$^-$/count		
	HiD Mode (Low Gain)	2000 e$^-$/count		
Dynamic Range		16 bit		
Pixel Defects		Max of 5 dark or hot pixels	Max of 5 dark or hot pixels	Max of 10 dark or hot pixels

*Specifications subject to change without notice.

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