

# EMVA 1288 IMAGING PERFORMANCE

# BLACKFLY<sup>®</sup>S

## BFS-PGE-19S4

Measurements are taken based on guidelines in the EMVA 1288 standard; the full definition can be found at EMVA.org. Camera settings are: maximum bit depth, 16-bit pixel format, and ISP disabled. The center wavelength is 525 nm unless otherwise noted. Results are captured at room temperature (20°C).

	Blackfly S BFS-PGE-19S4M		Blackfly S BFS-PGE-19S4C	
<b>Resolution</b>	1616x1240		1616x1240	
<b>Sensor</b>	Sony IMX430, CMOS, 1/1.7		Sony IMX430, CMOS, 1/1.7	
<b>Pixel Size (µm)</b>	4.5		4.5	
<b>Firmware Version</b>	2103.0.347.0		2103.0.347.0	
<b>ADC Bit Depth</b>	12		12	
<b>Gain Conversion</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>
<b>Quantum Efficiency Mono (% at 525 nm)</b>	70.85	71.58	N/A	N/A
<b>Quantum Efficiency Blue (% at 470 nm)</b>	N/A	N/A	52.13	52.59
<b>Quantum Efficiency Green (% at 525 nm)</b>	N/A	N/A	62.91	63.40
<b>Quantum Efficiency Red (% at 630 nm)</b>	N/A	N/A	49.09	50.00
<b>Temporal Dark Noise (Read Noise) (e-)</b>	2.60	5.81	2.58	5.87
<b>Temporal Dark Noise (Read Noise) (DN)</b>	14.98	14.68	14.90	14.76
<b>Signal to Noise Ratio Maximum (dB)</b>	40.38	43.99	40.42	44.01
<b>Signal to Noise Ratio Maximum (Bits)</b>	6.71	7.31	6.71	7.31
<b>Absolute Sensitivity Threshold (γ)</b>	4.37	8.82	4.90	10.05
<b>Absolute Sensitivity Threshold (e-)</b>	3.10	6.31	3.08	6.37
<b>Saturation Capacity (Well Depth) (e-)</b>	10920	25090	11011	25186
<b>Saturation Capacity (Well Depth) (γ)</b>	15413	35050	17500	39722
<b>Dynamic Range (dB)</b>	70.95	71.99	71.06	71.93
<b>Dynamic Range (Bits)</b>	11.78	11.96	11.80	11.95
<b>Gain (e-/ADU)</b>	0.17	0.40	0.17	0.40

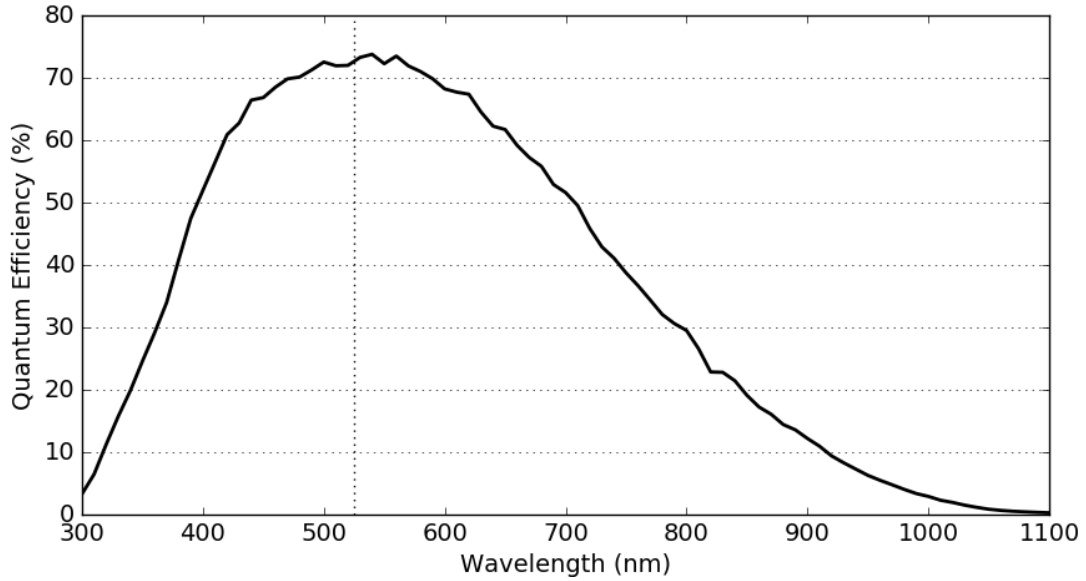
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### Blackfly S BFS-PGE-19S4M Spectral Response Curve



### Blackfly S BFS-PGE-19S4C Spectral Response Curve

