

EMVA 1288 IMAGING PERFORMANCE

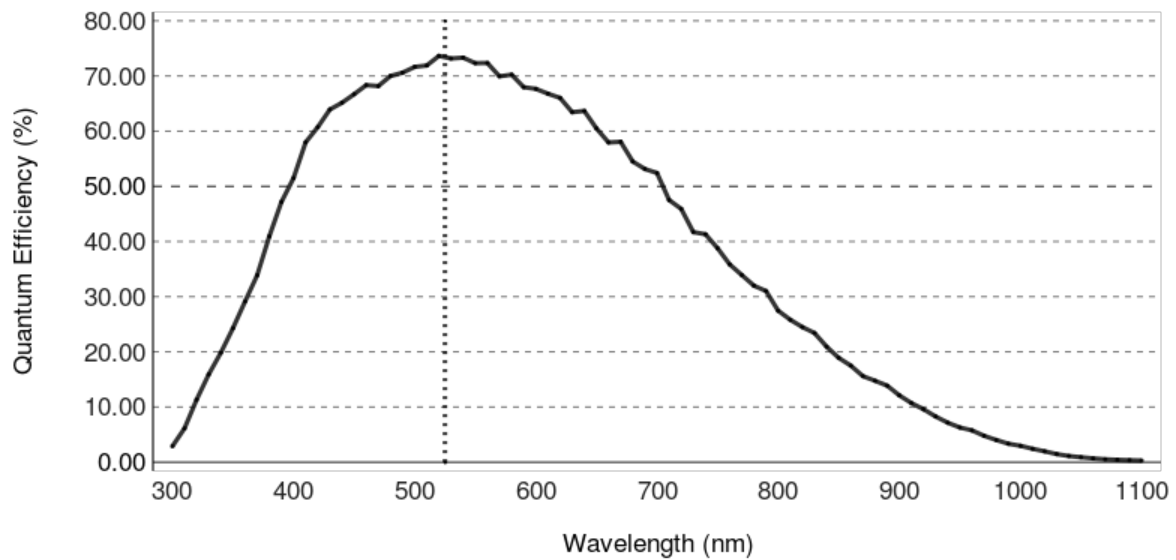
FLIR BLACKFLY[®]S

BFS-U3-20S4

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-U3-20S4M		Blackfly S BFS-U3-20S4C	
Resolution	1616x1240		1616x1240	
Sensor	IMX422 (1/1.7, CMOS, Global Shutter)		IMX422 (1/1.7, CMOS, Global Shutter)	
Pixel Size	4.5		4.5	
Firmware Version	1912.0.30.0		1912.0.30.0	
ADC Bit Depth	12		12	
Gain Conversion	High	Low	High	Low
Quantum Efficiency Mono (% at 525 nm)	70.77	71.27	N/A	N/A
Quantum Efficiency Blue (% at 470 nm)	N/A	N/A	51.10	51.82
Quantum Efficiency Green (% at 525 nm)	N/A	N/A	61.84	62.67
Quantum Efficiency Red (% at 630 nm)	N/A	N/A	49.92	50.13
Temporal Dark Noise (Read Noise) (e-)	2.69	5.87	2.64	5.88
Temporal Dark Noise (Read Noise) (DN)	15.73	15.15	15.30	14.85
Signal to Noise Ratio Maximum (dB)	40.40	43.85	40.36	43.98
Signal to Noise Ratio Maximum (Bits)	6.71	7.28	6.70	7.31
Absolute Sensitivity Threshold (γ)	4.51	8.93	5.07	10.16
Absolute Sensitivity Threshold (e-)	3.19	6.37	3.14	6.38
Saturation Capacity (Well Depth) (e-)	10960.90	24277.10	10868.40	25023.40
Saturation Capacity (Well Depth) (γ)	15488.10	34063.90	17565.40	39867.10
Dynamic Range (dB)	70.72	71.63	70.80	71.87
Dynamic Range (Bits)	11.75	11.90	11.76	11.94
Gain (e-/ADU)	0.17	0.39	0.17	0.40

Blackfly S BFS-U3-20S4M Spectral Response Curve



Blackfly S BFS-U3-20S4C Spectral Response Curve

