

# EMVA 1288 IMAGING PERFORMANCE

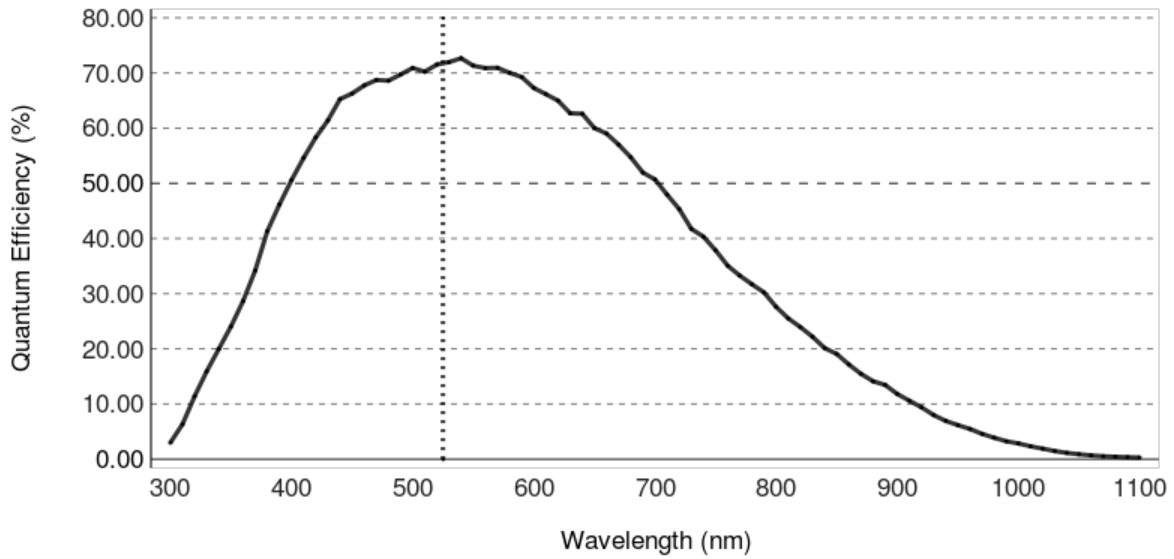
# FLIR BLACKFLY<sup>®</sup>S

## BFS-U3-16S7

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-U3-16S7M		Blackfly S BFS-U3-16S7C	
<b>Resolution</b>	1600x1100		1600x1100	
<b>Sensor</b>	IMX432 (1.1", CMOS, Global Shutter)		IMX432 (1.1", CMOS, Global Shutter)	
<b>Pixel Size</b>	9.0		9.0	
<b>Firmware Version</b>	1910.0.265.0		1910.0.265.0	
<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>	71.81	70.22	N/A	N/A
<b>Quantum Efficiency Blue (% at 470 nm)</b>	N/A	N/A	53.67	52.93
<b>Quantum Efficiency Green (% at 525 nm)</b>	N/A	N/A	64.49	63.13
<b>Quantum Efficiency Red (% at 630 nm)</b>	N/A	N/A	52.08	50.85
<b>Temporal Dark Noise (Read Noise) (e-)</b>	4.68	23.01	4.72	23.30
<b>Temporal Dark Noise (Read Noise) (DN)</b>	15.16	14.81	15.18	14.76
<b>Signal to Noise Ratio Maximum (dB)</b>	42.93	49.95	42.98	50.04
<b>Signal to Noise Ratio Maximum (Bits)</b>	7.13	8.30	7.14	8.31
<b>Absolute Sensitivity Threshold (<math>\gamma</math>)</b>	7.22	33.49	8.10	37.69
<b>Absolute Sensitivity Threshold (e-)</b>	5.18	23.51	5.22	23.80
<b>Saturation Capacity (Well Depth) (e-)</b>	19643.60	98965.60	19858.90	100924.00
<b>Saturation Capacity (Well Depth) (<math>\gamma</math>)</b>	27354.70	140929.00	30811.50	159828.00
<b>Dynamic Range (dB)</b>	71.57	72.48	71.61	72.55
<b>Dynamic Range (Bits)</b>	11.89	12.04	11.89	12.05
<b>Gain (e-/ADU)</b>	0.31	1.55	0.31	1.58

### Blackfly S BFS-U3-16S7M Spectral Response Curve



### Blackfly S BFS-U3-16S7C Spectral Response Curve

