EMVA 1288 IMAGING PERFORMANCE

FLIRBLACKFLY®S BFS-U3-70S7

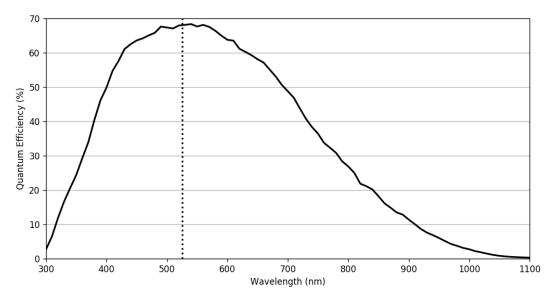
Measurements are taken based on guidelines in the EMVA 1288 standard; the full definition can be found at EMVA.org. Camera settings are: maximum bit depth, 16-bit pixel format, and ISP disabled. The center wavelength is 525 nm unless otherwise noted. Results are captured at room temperature (20°C).

BFS-U3-70S7M		BFS-U3-70S7C		
Resolution	3208 x 2200	3208 x 2200		
Sensor	Sony IMX428, CMOS, 1"	Sony IMX428, CMOS, 1"		
Pixel Size (μm)	4.5	4.5		
Firmware	1806.0.315.0	1806.0.315.0		
ADC	12-bit	12-bit		

Quantum Efficiency Mono (% at 530 nm) 77 78 N/A N/A Quantum Efficiency Blue (% at 460 nm) N/A N/A 52 53 Quantum Efficiency Green (% at 530 nm) N/A N/A 68 69 Quantum Efficiency Red (% at 625 nm) N/A N/A 63 64 Temporal Dark Noise (Read Noise) (e-) 2.66 5.99 2.70 6.06 Temporal Dark Noise (Read Noise) (DN) 15.36 15.00 15.30 14.90 Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863 Dynamic Range (dB) 70.72 71.86 70.79	Conversion Gain	High	Low	High	Low
Quantum Efficiency Green (% at 530 nm) N/A N/A 68 69 Quantum Efficiency Red (% at 625 nm) N/A N/A 63 64 Temporal Dark Noise (Read Noise) (e-) 2.66 5.99 2.70 6.06 Temporal Dark Noise (Read Noise) (DN) 15.36 15.00 15.30 14.90 Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Quantum Efficiency Mono (% at 530 nm)	77	78	N/A	N/A
Quantum Efficiency Red (% at 625 nm) N/A N/A 63 64 Temporal Dark Noise (Read Noise) (e-) 2.66 5.99 2.70 6.06 Temporal Dark Noise (Read Noise) (DN) 15.36 15.00 15.30 14.90 Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Quantum Efficiency Blue (% at 460 nm)	N/A	N/A	52	53
Temporal Dark Noise (Read Noise) (e-) 2.66 5.99 2.70 6.06 Temporal Dark Noise (Read Noise) (DN) 15.36 15.00 15.30 14.90 Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Quantum Efficiency Green (% at 530 nm)	N/A	N/A	68	69
Temporal Dark Noise (Read Noise) (DN) 15.36 15.00 15.30 14.90 Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Quantum Efficiency Red (% at 625 nm)	N/A	N/A	63	64
Signal to Noise Ratio Maximum (dB) 40.36 44.05 40.45 44.05 Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Temporal Dark Noise (Read Noise) (e-)	2.66	5.99	2.70	6.06
Signal to Noise Ratio Maximum (Bits) 6.70 7.32 6.72 7.32 Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Temporal Dark Noise (Read Noise) (DN)	15.36	15.00	15.30	14.90
Absolute Sensitivity Threshold (γ) 4.13 8.34 4.73 9.52 Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Signal to Noise Ratio Maximum (dB)	40.36	44.05	40.45	44.05
Absolute Sensitivity Threshold (e-) 3.16 6.49 3.20 6.56 Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Signal to Noise Ratio Maximum (Bits)	6.70	7.32	6.72	7.32
Saturation Capacity (Well Depth) (e-) 10867 25420 11097 25428 Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Absolute Sensitivity Threshold (y)	4.13	8.34	4.73	9.52
Saturation Capacity (Well Depth) (γ) 14199 32656 16384 36863	Absolute Sensitivity Threshold (e-)	3.16	6.49	3.20	6.56
	Saturation Capacity (Well Depth) (e-)	10867	25420	11097	25428
Dynamic Range (dB) 70.72 71.86 70.79 71.76	Saturation Capacity (Well Depth) (γ)	14199	32656	16384	36863
	Dynamic Range (dB)	70.72	71.86	70.79	71.76
Dynamic Range (Bits) 11.75 11.94 11.76 11.92	Dynamic Range (Bits)	11.75	11.94	11.76	11.92
Gain (e-/ADU) 0.17 0.40 0.18 0.41	Gain (e-/ADU)	0.17	0.40	0.18	0.41



BFS-U3-70S7M



BFS-U3-70S7C

