



GigE Camera Features:

- Unique selection of CMOS and CCD sensors
- Supports GigE Vision 1.2
- Industry's most compact sizes
- GigE image filter driver for reduced latency and maximized bandwidth
- Firmware versions updatable in the field
- On-board temperature, power sensors, and status LED



BLACKFLY® S

UP TO 20 MP CMOS IN AN ICE CUBE



BLACKFLY®

ULTRA-COMPACT POE CAMERA



Model#	Sensor Specifications		Shutter	Max Res	Max FPS	Model#	Sensor Specifications		Shutter	Max Res	Max FPS				
BFS-PGE-04S2C/M-CS	0.4MP	Sony IMX287 CMOS*	1/2.9"	6.9 µm	Global	720 x 540	291 fps	BFLY-PGE-03S2C/M-CS	0.3MP	Sony ICX424 CCD	1/3"	7.4 µm	Global	648 x 488	84 fps
BFS-PGE-13Y3C/M-C	1.3MP	ON Semi PYTHON 1300 CMOS	1/2"	4.8 µm	Global	1280 x 1024	84 fps	BFLY-PGE-03S3C/M-CS	0.3MP	Sony ICX414 CCD	1/2"	9.9 µm	Global	648 x 488	90 fps
BFS-PGE-16S2C/M-CS	1.6MP	Sony IMX273 CMOS*	1/2.9"	3.45 µm	Global	1440 x 1080	73 fps	BFLY-PGE-05S2C/M-CS	0.5MP	Sony ICX693 CCD	1/3"	6.0 µm	Global	808 x 608	50 fps
BFS-PGE-23S3C/M-C	2.3 MP	Sony IMX392 CMOS*	1/2.3"	3.45 µm	Global	1920 x 1200	49 fps	BFLY-PGE-09S2C/M-CS	0.9MP	Sony ICX692 CCD**	1/3"	4.08 µm	Global	1288 x 728	30 fps
BFS-PGE-31S4C/M-C	3.2MP	Sony IMX265 CMOS*	1/1.8"	3.45 µm	Global	2048 x 1536	35 fps	BFLY-PGE-12A2C/M-CS	1.2MP	Aptina AR0134 CMOS	1/3"	3.75 µm	Global	1280 x 960	52 fps
BFS-PGE-50S5C/M-C	5.0MP	Sony IMX264 CMOS*	2/3"	3.45 µm	Global	2448 x 2048	24 fps	BFLY-PGE-13S2C/M-CS	1.3MP	Sony ICX445 CCD*	1/3"	3.75 µm	Global	1288 x 964	30 fps
BFS-PGE-51S5P-C	5.0 MP	Sony IMX250MZR CMOS*	2/3"	3.45 µm	Global	2448 x 2048	24 fps	BFLY-PGE-13H2C/M-CS	1.3MP	Sharp RJ33J3/RJ33J4 CCD	1/3"	3.75 µm	Global	1288 x 964	30 fps
BFS-PGE-88S6C/M-C	8.9 MP	Sony IMX267 CMOS*	1"	3.45 µm	Global	4096 x 2160	13.5 fps	BFLY-PGE-13E4C/M-CS	1.3MP	e2v EV76C560 CMOS	1/1.8"	5.3 µm	Global	1280 x 1024	60 fps
BFS-PGE-122S6C/M-C	12.3 MP	Sony IMX304 CMOS*	1.1"	3.45 µm	Global	4096 x 3000	9.7 fps	BFLY-PGE-14S2C-CS	1.4MP	Sony IMX104 CMOS	1/3"	3.75 µm	Rolling	1296 x 1032	60 fps
BFS-PGE-200S6M/C-C	20 MP	Sony IMX183 CMOS*	1"	2.4 µm	Rolling	5472 x 3648	6.1 fps	BFLY-PGE-20E4C/M-CS	2.0MP	e2v EV76C570 CMOS	1/1.8"	4.5 µm	Global	1600 x 1200	50 fps
BFS-GE-16S2M/C-BD2 ¹	1.6 MP	Sony IMX273 CMOS*	1/2.9"	3.45 µm	Global	1440 x 1080	78 fps	BFLY-PGE-23S2C-CS	2.3MP	Sony IMX136 CMOS	1/2.8"	2.8 µm	Rolling	1920 x 1200	27 fps
BFS-PGE-70S7C/M-C ¹	7.1 MP	Sony IMX428 CMOS*	1.1"	4.5 µm	Global	3208 x 2200	17 fps	BFLY-PGE-23S6C/M-C	2.3MP	Sony IMX249 CMOS***	1/1.2"	5.86 µm	Global	1920 x 1200	41 fps
								BFLY-PGE-31S4M/C-C ¹	3.2MP	Sony IMX265 CMOS***	1/1.8"	3.45 µm	Global	2048 x 1536	35 fps
								BFLY-PGE-50A2C/M-CS	5.0MP	Aptina MT9P006/031 CMOS	1/2.5"	2.2 µm	Rolling	2592 x 1944	13 fps
								BFLY-PGE-50H5C/M-C	5.0MP	Sharp RJ32S4/S3AADOIT CCD	2/3"	3.45 µm	Global	2448 x 2048	7.5 fps
								BFLY-PGE-50S5M/C-C ¹	5.0MP	Sony IMX264 CMOS***	2/3"	3.45 µm	Global	2448 x 2048	22 fps

¹Coming Soon

*High performance Sony Pregius™ Global Shutter CMOS

**High sensitivity Sony EXview HAD CCD

***High sensitivity Sony EXview HAD CCD II

****High performance Sony Pregius™ Global Shutter CMOS

INTERFACE	Gigabit Ethernet interface with screw locks for camera control and data; Power over Ethernet	Gigabit Ethernet interface with screw locks for camera control and data; Power over Ethernet
GPIO	6-pin Hirose HR10A-7R-6PB GPIO connector for trigger, strobe, and power. 1 opto-isolated input, 1 opto-isolated output. 1 bi-directional I/O pin, 1 input pin.	6-pin Hirose HR10A-7R-6PB GPIO connector for trigger, strobe, and power. 1 opto-isolated input, 1 opto-isolated output
ADC	12-bit • 10-bit (BFS-PGE-13Y3)	10-bit (BFLY-PGE-13E4, BFLY-PGE-20E4) • 12-bit
IMAGE DATA FORMATS	Mono8, Mono16, Bayer8, Bayer16, RGB8, YCbCr8, YCbCr411_8, YCbCr422_8	Mono8, Mono12, Mono16, Raw8, Raw12, Raw16 (all models) / RGB, YUV411, YUV422, YUV 444 (color models)
PARTIAL IMAGE MODES	Pixel binning and region of interest (ROI) modes	Pixel binning and region of interest (ROI) modes
GAMMA	0.50 to 4.00, programmable lookup table	0.50 to 4.00, programmable lookup table
TRIGGER MODES	External trigger and software trigger	Standard, bulb (except BFLY-PGE-05S2, BFLY-PGE-09S2, BFLY-PGE-12A2, BFLY-PGE-13E4, BFLY-PGE-20E4) overlapped (except BFLY-PGE-12A2, BFLY-PGE-13E4, BFLY-PGE-14S2, BFLY-PGE-20E4, BFLY-PGE-50A2), multi-shot, low smear mode (CCD models only)
TIME SYNCHRONIZATION PROTOCOL	IEEE 1588 Precision Time Protocol	
IMAGE BUFFER	240 MB	16 MB frame buffer
USER SETS	2 memory channels for custom camera settings	2 memory channels for custom camera settings
SIZE (WxHxD)	29 x 29 x 30 mm excluding lens holder (metal case)	29 x 29 x 30 mm excluding lens holder, without optics (metal case)
MASS	36g (Without optics or tripod mounting bracket)	36 grams (without optics or tripod mounting bracket)
POWER	Standard voltage via Power over Ethernet (PoE) or 8 - 24 V via GPIO interface, < 2.5 W	Standard voltage via Power over Ethernet (PoE) or 5 - 16 V via GPIO interface, < 2.5 W
LENS MOUNT	C-mount / CS-mount (5 mm C-mount adapter sold separately)	C-mount / CS-mount (5 mm C-mount adapter sold separately)
TEMPERATURE	-30° to 60°C (storage) • 0° to 50°C (operating)	-30° to 60°C (storage) • 0° to 45°C (operating)
WARRANTY	3 years	3 years

