



HD-SDI Frame Grabbers

**PCIe x1 SD/HD SDI Frame Grabber for desktop PCs** VCE-HDPCIe01  
Video and stereo audio acquisition from a single SDI camera. Supports all SD and HD formats including 720p, 1080i and 1080p. Includes a second loop-through BNC connector and a bi-directional RS232/RS485 serial interface for camera control. Supports SMPTE 292M, 274M, & 296M.

**ExpressCard/34 SD/HD SDI Frame Grabber for laptops** VCE-HDEX02  
Video and stereo audio acquisition from a single SDI camera. Supports all SD and HD formats including 720p, 1080i and 1080p. Supports SMPTE 292M, 274M, & 296M.

**ExpressCard/54 SD/HD SDI Frame Grabber for laptops** VCE-HDEX03  
Video and stereo audio acquisition from a single SDI camera. Supports all SD and HD formats including 720p, 1080i and 1080p. Supports SMPTE 292M, 274M, & 296M.

Camera Link® Frame Grabbers

**PCIe x1 Camera Link® Frame Grabber for desktop PCs** VCE-CLPCIe01  
Simultaneous acquisition from two independent base Camera Link cameras or one medium Camera Link camera using intelligent DMA for fast and efficient use of the ExpressCard bandwidth and a flow-through pipelined architecture for low latency.

**PCIe x1 Camera Link Frame Grabber w/PoCL & I/O for desktop PCs** VCE-CLPCIe02  
Simultaneous acquisition from two independent base Camera Link cameras or one medium Camera Link camera. Fully PoCL with SafePower compliant. Includes a comprehensive Programmable Logic Controller and 8 I/O signals.

**ExpressCard/54 Camera Link Frame Grabber for laptops** VCE-CLEX01  
Simultaneous acquisition from two independent base Camera Link cameras or one medium Camera Link camera. Includes many advanced features such as lookup tables, histograms, RGB gain/ offset with auto-white balance, etc.

**ExpressCard/34 Camera Link Frame Grabber for laptops** VCE-CLEX02  
Acquisition from a single base camera.

**PCIe x4 Camera Link Frame Grabber with PoCL for desktop PCs** VCE-CLPCIe03  
Simultaneous acquisition from two independent base Camera Link cameras or one medium Camera Link camera. Fully PoCL with SafePower compliant. Includes a comprehensive Programmable Logic Controller and 8 I/O signals.

**PCIe x4 Camera Link Frame Grabber with PoCL for desktop PCs** VCE-CLPCIe04  
Single base, medium, full or 80-bit Camera Link interface. Fully PoCL with SafePower compliance. Includes a comprehensive programmable logic controller and 8 I/O signals.

NTSC/PAL /RS170 - Analog Frame Grabbers

**ExpressCard/54 Analog Frame Grabber for laptops** VCE-ANEX01  
Video acquisition from a single NTSC/PAL/RS170 camera. Supports switching between two S-Video or composite inputs.

**Flat ExpressCard/54 Analog Frame Grabber for laptops** VCE-ANEX02  
Video acquisition from a single NTSC/PAL/RS170 camera. Flat version allow for two cards to be installed in a dual slot laptop. Includes user specified cables lengths and terminating connectors.

**ExpressCard/34 Analog Frame Grabber for laptops** VCE-ANEX03  
Video acquisition from a single NTSC/PAL/RS170 camera. Includes auto NTSC/PAL format detection and Automatic Gain Control.

**VCE-PRO-C - Cardbus Analog Frame Grabber for laptops** VCE-PRO-C  
Video acquisition from a single NTSC/PAL/RS170 camera. Includes support for an external trigger input.

IMPERX manufactures high-performance cameras and frame grabbers for industrial, military, medical, space, and security applications. Our products and imaging solutions are designed and built to outperform in the most demanding imaging requirements, facilitate system integration, and exceed customer expectations.

In focused collaborations, IMPERX is helping innovative business leaders transform the way goods are manufactured and systems run. Our proven imaging solutions can help your company increase productivity, improve accuracy and significantly reduce costs. IMPERX products deliver hi-res imaging and critical data so problems can be pinpointed and addressed almost as quickly as they arise - rapidly deploying the information your business and customers demand.

Say hello to the industry's most advanced video capture cards!

IMPERX pioneered the development of laptop and desktop FRAME GRABBERS with Camera Link®, HD-SDI and full analog video streaming. IMPERX frame grabbers combine leading performance with in-demand feature sets, value pricing and wide-ranging camera support. Part of their complete SDK software, IMPERX frame grabbers feature "Self-Learn", an advancement that eliminates the need for camera configuration files.

Choose IMPERX!



**Automation** and fast reliable industrial inspection are mandatory to compete successfully in manufacturing today. IMPERX cameras – reliable, with consistent results – ensure a return on investment (ROI) manufacturers can't afford to miss. With an MTBF of >660,000 hours @ 40C, IMPERX cameras won't fail and won't shut down the line.

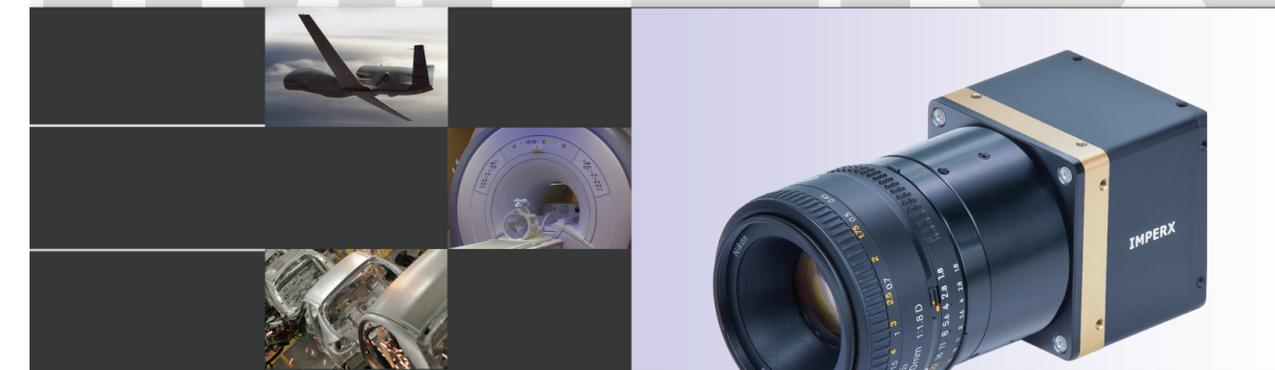
**Medical Imaging** - Medical equipment must be made to the highest standards and be capable of rendering years of uninterrupted service. IMPERX cameras and frame grabbers are designed and built to this benchmark. With our paradigm for quality, IMPERX products have been the choice of leading medical equipment manufacturers since our founding in 2001.

**Scientific and Life Sciences** Imaging needs usually include, ultra-low noise, abnormally long or short integration times and a good selection of features allowing for many uses. IMPERX cameras come standard with all of the above and more.

**Aerial Mapping and Surveillance** - Airborne applications demand unique solutions, distinct feature sets, robust shock/vibration tolerance and extended temperature operation capabilities. Aerial applications are an IMPERX core competency. Our programmable Bobcat cameras are ideal for mapping and surveillance.

**Traffic and Transportation Systems** - IMPERX cameras are designed and built to work perfectly in the coldest and hottest environments, day in and day out, providing years of uninterrupted service, requiring no maintenance whatsoever. IMPERX cameras are the proven choice for Traffic and Transportation systems from Australia to Russia.

**Defense (DoD) and Aerospace** applications require the ability to perform well in extreme environments under punishing conditions. IMPERX cameras offer a -40 to +85C operating temperature range, rugged construction, small size, low weight and low power usage, in a variety of outputs - all at COTS pricing. IMPERX delivers for defense.



IMAGING SOLUTIONS

CAMERAS  
FRAME GRABBERS  
& IMAGING SOLUTIONS



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# IMPERX Cameras - 2014

Model	Sensor	Resolution	Optical Format	Sensor Options	Lens Mount	FPS	Taps	GEV	PoE	CLB	CLM	SDI	CXP
B0610	KAI-0340S	640 x 480	1/3"	Monochrome, Color	C-Mount (Default), CS	109/136	1	✓	✓	✓			✓
B0620	KAI-0340D	640 x 480	1/3"	Monochrome, Color	C-Mount (Default), CS	207/259	2	✓	✓	✓			✓
B1020	KAI-01050	1024 x 1024	1/2"	Monochrome, Color	C-Mount (Default), CS	59/74	2	✓	✓	✓			✓
B1040	KAI-01050	1024 x 1024	1/2"	Monochrome, Color	C-Mount (Default), CS	118/148	4				✓		✓
B1310	ICX-445	1280 x 960	1/3"	Monochrome, Color	C-Mount (Default), CS	26/39	1	✓	✓	✓			✓
B1320	KAI-01150	1280 x 720	1/2"	Monochrome, Color, Sparse CFA	C-Mount (Default), CS	68/85	2	✓	✓	✓		✓	✓
B1340	KAI-01150	1280 x 720	1/2"	Monochrome, Color, Sparse CFA	C-Mount (Default), CS	135/169	4				✓		✓
B1410	ICX-285	1360 x 1024	2/3"	Monochrome, Color	C-Mount	23/30	1	✓	✓	✓			✓
B1411	ICX-267	1360 x 1024	1/2"	Monochrome, Color	C-Mount (Default), CS	24/31	1	✓	✓	✓			✓
B1610	ICX-274	1620 x 1220	1/1.8"	Monochrome, Color	C-Mount	17/25	1	✓	✓	✓			✓
B1620	KAI-2020	1600 x 1200	1.0"	Monochrome, Color	C-Mount	35/44	2	✓	✓	✓			✓
B1621	KAI-02050	1600 x 1200	2/3"	Monochrome, Color	C-Mount	33/42	2	✓	✓	✓			✓
B1641	KAI-02050	1600 x 1200	2/3"	Monochrome, Color	C-Mount	67/83	4				✓		✓
B1920	KAI-2093	1920 x 1080	1.0"	Monochrome, Color	C-Mount	33/41	2	✓	✓	✓		✓	✓
B1921	KAI-02150	1920 x 1080	2/3"	Monochrome, Color, Sparse CFA	C-Mount	32/39	2	✓	✓	✓		✓	✓
B1941	KAI-02150	1920 x 1080	2/3"	Monochrome, Color, Sparse CFA	C-Mount	62/79	4				✓		✓
B1922	ICX-674	1940 x 1460	2/3"	Monochrome, Color	C-Mount	20/25	2	✓	✓	✓		✓	✓
B1942	ICX-674	1940 x 1460	2/3"	Monochrome, Color	C-Mount	40/54	4				✓		✓
B1923	KAI-02170	1920 x 1080	1.0"	Monochrome, Color, Sparse CFA	C-Mount	30/37	2	✓	✓	✓		✓	✓
B1943	KAI-02170	1920 x 1080	1.0"	Monochrome, Color, Sparse CFA	C-Mount	60/74	4				✓		✓
B2020	KAI-04022	2048 x 2048	4/3"	Monochrome, Color	F-Mount(Def),C,M42,EOS,R	16/20	2	✓	✓	✓			✓
B2021	KAI-04070	2048 x 2048	4/3"	Monochrome, Color, Sparse CFA	F-Mount(Def),C,M42,EOS,R	13/17	2	✓	✓	✓			✓
B2041	KAI-04070	2048 x 2048	4/3"	Monochrome, Color, Sparse CFA	F-Mount(Def),C,M42,EOS,R	26/34	4				✓		✓
B2320	KAI-04050	2336 x 1752	1.0"	Monochrome, Color, Sparse CFA	C-Mount	16/21	2	✓	✓	✓			✓
B2340	KAI-04050	2336 x 1752	1.0"	Monochrome, Color, Sparse CFA	C-Mount	33/41	4				✓		✓
B2510	ICX-655	2448 x 2050	2/3"	Monochrome, Color	C-Mount	6.5/9.6	1	✓	✓	✓			✓
B2520	ICX-625	2448 x 2050	2/3"	Monochrome, Color	C-Mount	11/16"	2	✓	✓	✓			✓
B2720	ICX-694	2750 x 2200	1.0"	Monochrome, Color	C-Mount	10.2/12.7	2	✓	✓	✓			✓
B2740	ICX-694	2750 x 2200	1.0"	Monochrome, Color	C-Mount	20.2/25.4	4				✓		✓
B3320	KAI-08050	3296 x 2472	4/3"	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	8.5/10.6	2	✓	✓	✓			✓
B3340	KAI-08050	3296 x 2472	4/3"	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	17/21	4				✓		✓
B3420	ICX-814	3388 x 2712	1.0"	Monochrome, Color	C-Mount	6.9/8.6	2	✓	✓	✓			✓
B3440	ICX-814	3388 x 2712	1.0"	Monochrome, Color	C-Mount	13.8/17.2	4				✓		✓
B4020	KAI-11002	4008 x 2672	4/3.3mm	Monochrome, Color	F-Mount(Def), M42, EOS, R	4.8/6.4	2	✓	✓	✓			✓
B4820	KAI-16000	4872 x 3248	4/3.3mm	Monochrome, Color	F-Mount(Def), M42, EOS, R	3.2/4.2	2	✓	✓	✓			✓
B4821	KAI-16050	4896 x 3264	32.36mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	3.1/4.2	2	✓	✓	✓			✓
B4841	KAI-16050	4896 x 3264	32.36mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	6.6/8.8	4				✓		✓
B4822	KAI-16070	4864 x 3232	43.2mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	3.0/4.1	2	✓	✓	✓			✓
B4842	KAI-16070	4864 x 3232	43.2mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	5.9/7.9	4				✓		✓
B6620	KAI-29050	6576 x 4384	43.3mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	1.8/2.4	2	✓	✓	✓			✓
B6640	KAI-29050	6576 x 4384	43.3mm	Monochrome, Color, Sparse CFA	F-Mount(Def), M42, EOS, R	3.5/4.7	4				✓		✓

- Regions of Interest ROI: 1 master + 6 slaves
- Exposure Manual, auto, programmable
- Gain Control Manual, auto, programmable
- Binning H & V x1, x2, x3, x4, x8
- Data Corrections Defective pixel correction, flat field correction, hot pixel correction, look up tables
- Gamma Correction G=1.0, G=0.45, user upgradable LUT
- Image Overlay Yes, programmable
- Lens Control Video Iris, 3 motor lens (focus, zoom and iris)
- Long Integration Up to 16 seconds
- Mil Spec 810F
- MTBF >660,000 hours @ 40°C
- Output Format Mono 8, 10, 12, 14; 10/12-packed; Bayer 8, 10, 12; RGB 24
- Operating Temperature -40°C to +85°C
- Power Input Range 12V DC (10 V – 15V)
- RS232 Interface Yes
- Strobe Output Programmable, position and duration
- Trigger Modes Programmable, standard, double exposure, frame time, accumulation, asynchronous



## Ordering is easy!

To create your Bobcat custom ordering code, simply choose one element from each column.  
Sample ordering code: GEV-B3320M-TF000

Interface	Camera Number	Sensor Type	Sensor Mfgr.	Lens Mount	Filter Option	Misc.
GEV - GigE Vision®	B3320	M - Monochrome	T - TRUSENSE	C - C	0 - None	
PoE - Power over Ethernet	B3320	C - Color	S - Sony	F - F	1 - No IR Filter (Color Cameras come with IR Filter)	
CLB - Camera Link® Base (PoCL compliant)	B3320	T - TRUSENSE Sparse CFA		S - CS	2 - With IR Filter (Mono Cameras come without IR Filter)	
CLM - Camera Link Medium	B3340	W - VS (Glassless) w micro lens		B - Birger	3 - With Clear Cover Glass	
SDI - HD-SDI	B1921	U - UV (Glassless) w/o micro Lens		T - T	4 - Mounted Cover Glass to Custom base onto Sensor	
CXP - CoaXPress	B1921	X - UV Quartz w/o Micro lens		M - M42 Screw		
		Q - Quartz		E - Passive EOS		
		D - Deep UV (KAI 2020 only)		R - Rodenstock		

### Camera Ordering notes:

- HD-SDI interface is available only on models B1320, B1920, B1921, B1922, and B1923.
- Power supply, purchased separately, includes BNCs for trigger in and strobe out TTL.
- PS12V04 12 power supply (GEV, CLB, CLM and SDI)
- PS12V04-B 12 VDC power supply comes with RS232 DB9, lens power 12VDC (GEV)
- PS12V05 auto iris video type (GEV, CLB, CLM and SDI)

AWB (Auto White Balance) is available on all Bayer color and TRUSENSE Sparse CFA cameras  
For more custom ordering information, consult the camera's user manual or contact us at sales@imperx.com.  
Product information and specifications are subject to change without prior notice.

