

SVCam-CF

VGA up to 5 Megapixel



International

SVCam-CF

Robust Camera Family

This family of cameras allows precision imaging in highly automated production facilities. The cameras range from VGA (640 x 480) to 5 Megapixel resolution utilizing high-quality interline CCD sensors from Sony and Kodak. These reliable, high-performance cameras integrate easily into new or existing imaging systems.

The SVCam-CF camera family ensures the maximum performance required for demanding vision applications. The **CameraLink** and **GigE** interfaces are internationally standardized for highest data transfer rates between camera and PC. With their cutting-edge electronics design the cameras offer very high image frequencies at extremely low noise levels. The compact housing of the cameras enables installation even with limited space conditions.

Sophisticated processing of the analog CCD video signal by Correlated Double Sampling (CDS) to reduce noise and an early conversion into digital signals results in an excellent signal-to-noise ratio. The integrated intelligence offers various modes for exposure time and trigger control settings.

The use of these cameras as key-components can provide early identification of defective products, reduction of fabrication costs, and an increase in yield.

Major advantages of GigE Vision

The possibilities opened up by the international interface standard GigE Vision (Gigabit Ethernet for Machine Vision) go far beyond those of previously used image processing standards. Vision hardware compliant with this specification communicates with the host PC by means of a standard defined protocol based on UDP/IP.

The GigE Vision standard refers to the standard software interface GenICam (Generic Interface for Cameras) that addresses all the camera functions via a standardized XML file, thus guaranteeing that the entire software is mutually compatible, and the GigE versions of the SVCam-CF series is compatibly bound into this standardized communications structure. GigE Vision offers numerous

hardware and software advantages for users over the entire range of industrial image processing. Most important of these advantages is that the hardware used can be easily and rapidly replaced, thus shortening design cycles and reducing development costs.

- > Cost-effective
- > Easy to interface
- > Flexible; downwards-compatible to Fast Ethernet and upwards-compatible to 10 GB Ethernet
- > Wide range of factory-made industrial-standard plugs and cables up to protection class IP68
- > High bandwidth data transfer rate of 100 MB/sec
- > Up to 100m range without additional data communications equipment
- > Wide range of applications in image processing
- > Any desired number of devices can be connected to the host
- > Remote service capability

All camera models of the SVCam-CF series have the following features:

- > Progressive Scan CCD sensors
- > Monochrome and color versions (Bayer Pattern)
- > Various trigger (internal/external/free running) and exposure modes
- > Adjustable gain
- > Low offset
- > Various binning modes
- > Partial Scan
- > C-Mount
- > Operating temperature range from -10°C (non-condensing) to +45°C
- > Power supply: +12V DC

CameraLink specific feature:

- > 10 Bit data; some models with 12 Bit option available

GigE specific features:

- > GigE Vision (Gigabit Ethernet) standard compliant
- > 100/1000 MBit Ethernet interface

- > 8 or 12 Bits transferred
- > Area of Interest (AOI)
- > White balance for color versions
- > Opto-isolated strobe output, configurable delay
- > SDK for Windows and Linux available



Overview CameraLink Cameras



Camera Type	Resolution (pixel)	Sensor Size	Frame Rate (Hz, max.)	Pixel Size (µm)	Housing Size (mm)	ADC Bit Option	Lens Mount
svs340	640 x 480	1/3"	400	7.4	50 x 55 x 43	10/14	C-Mount
svs424	640 x 480	1/3"	110	7.4	50 x 55 x 35	10	C-Mount
svs204	1024 x 768	1/3"	48	4.65	50 x 55 x 35	10	C-Mount
svs1050	1000 x 1000	2/3"	92	5.5	50 x 55 x 43	14	C-Mount
svs285	1360 x 1024	2/3"	32	6.45	50 x 55 x 35	14	C-Mount
svs2050	1600 x 1200	14.8mm diag.	53	5.5	50 x 55 x 43	10/14	C-Mount
svs2150	1920 x 1080	2/3"	51	5.5	50 x 55 x 43	10/14	C-Mount
svs274	1600 x 1200	1/1.8"	25	4.4	50 x 55 x 35	14	C-Mount
svs4021	2048 x 2048	21.5mm diag.	25	7.4	50 x 55 x 43	10/14	M42/C- or F-Mount
svs4050	2404 x 1800	1"	27	5.5	50 x 55 x 43	14	M42/C- or F-Mount
svs625	2448 x 2048	2/3"	20	3.45	50 x 55 x 43	14	C-Mount
svs8050	3320 x 2496	22.66mm diag.	10	5.5	50 x 55 x 43	14	M42/C- or F-Mount

Overview GigE Cameras



Camera Type	Resolution (pixel)	Sensor Size	Frame Rate (Hz, max.)	Pixel Size (µm)	Housing Size (mm)	ADC Bit Option	Lens Mount
svs340	640 x 480	1/3"	260	7.4	51 x 55 x 73	14	C-Mount
svs1050	1000 x 1000	2/3"	60	5.5	51 x 55 x 73	14	C-Mount
svs285	1360 x 1024	2/3"	33	6.45	51 x 55 x 64	14	C-Mount
svs2050	1600 x 1200	14.8mm diag.	33	5.5	51 x 55 x 73	14	C-Mount
svs2150	1920 x 1080	2/3"	31	5.5	51 x 55 x 73	14	C-Mount
svs274	1600 x 1200	1/1.8"	26	4.4	51 x 55 x 64	14	C-Mount
svs4021	2048 x 2048	21.5mm diag.	19	7.4	51 x 55 x 73	14	M42/C- or F-Mount
svs4050	2404 x 1800	1"	16	5.5	51 x 55 x 73	14	M42/C- or F-Mount
svs625	2448 x 2050	2/3"	19	3.45	51 x 55 x 73	14	C-Mount

For higher resolutions see our SVCam-HR product overview.

Application areas

SVCam cameras are used successfully in a wide range of different industries, e.g.:

- > Aerospace
- > Automotive
- > Beverage
- > Food
- > Information
- > Mechanical engineering
- > Medical technology
- > Optical metrology
- > Pharmaceutical
- > Photovoltaic/power engineering
- > Plastics
- > Printing
- > Semiconductor
- > Timber
- > Traffic monitoring
- > Transportation systems

Supported Interfaces



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SVCam – High-performance CCD cameras made by SVS-VISTEK

“SVCam” stands for high-performance CCD cameras developed and manufactured in modular designs which can be tailored to meet specific customer requirements. In total there are currently four camera lines, representing high-performance camera technology which allow SVS-VISTEK to match the specific needs of its customers:

SVCam-ECO: Maximum performance with a minimum of size. Cost-effective Gigabit Ethernet camera series for your applications.

SVCam-CF: Diversity and flexibility with Gigabit Ethernet or CameraLink interfaces. Extensive coverage of your applications by use of the most relevant CCD sensors.

SVCam-HR: Maximum resolution, yet smallest design possible. With Gigabit Ethernet and CameraLink interfaces for those of your applications requiring utmost precision.

SVCam-SLC: The very slim housing with “side looking” construction allows access to space limited applications. This very unique GigE Vision camera series will open up new opportunities.



For more information our sales team will be pleased to assist you with expert advice. Please contact us.