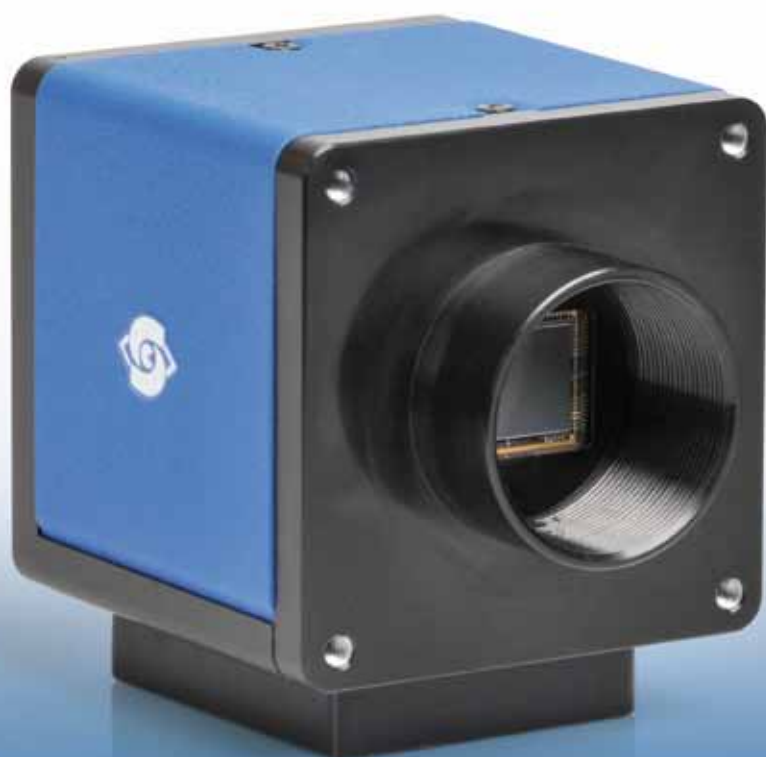




SVS-VISTEK

SVCam-EVO

Dual GigE and CameraLink in 1, 2, 4 and 8 MegaPixel Versions



International



Scale your vision

SVCam-EVO

Dual GigE and CameraLink in 1, 2, 4 and 8 MegaPixel Versions

A maximum of Hightech in a minimum enclosure. This was our goal for the SVCam-EVO series. EVO stands for EVOLUTION in the truest sense of the word. It was designed to offer an extreme performance: High-end Kodak Sensors are featuring a wide dynamic range. A superb imaging performance combined with high frame rates meets a robust and compact housing and SVS-VISTEK unique overclocking technology.

SVCam-EVO represents the latest level of most common and relevant camera interfaces in machine vision industry. Dual-Gigabit Ethernet or CameraLink Interface – it's your choice. Both interfaces are internationally standardized for highest data transfer rates between camera and PC. So we ensure an easy integration into new or existing imaging systems. With cutting-edge electronics design the cameras offer very high framerates at extremely low noise levels. The SVCam-EVO camera family enables the maximum performance required for your demanding vision applications.

Sophisticated processing of the critical analog CCD video signal by Correlated Double Sampling (CDS) leads to significant noise reduction. Straight forward conversion into digital signal result in an excellent signal-to-noise ratio. The integrated intelligence offers various modes for exposure time and trigger control settings.

Making use of these cameras can provide e.g. 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 camera 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 camera functions via a standardized XML file.

This guarantees that the entire software is mutually compatible, and the GigE versions of the SVCam-EVO series is compatibly bound into this standardized communication 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 exchanged, 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 „off the shelf“ industrial-standard plugs and cables up to class IP68
- > High bandwidth data transfer rate up to 240 MB/sec
- > Up to 100m range without extra switch
- > Wide range of applications
- > Any number of devices can be connected to the host
- > Remote service capability

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

- > Progressive Scan 4-Tap CCD sensors
- > Monochrome and color versions (Bayer Pattern)
- > Various trigger (int./ext./free running) and exposure modes
- > Adjustable gain
- > Low offset
- > Various binning modes
- > C-Mount
- > Operating temperature range from -10°C (non-condensing) to +45°C
- > Power supply: 10 – 25 V DC

GigE specific features:

- > GigE-Vision (Gigabit Ethernet) standard compliant
- > DualGigE-Vision interface with max. 240 MB/s Data rate
- > Power over Ethernet (PoE)
- > Analog Digital Converter (ADC) 14 Bits
- > Optional 8 or 12 Bits transferred
- > Area of Interest (AOI)
- > White Balance for Color Versions
- > Isolated I/O-Concept: 2 x Input (0-24 V), 1 x Input RS-422, 2 x Output (24 V, 0,3 A), 1 x Output RS-422, 1 x Serial RS-232
- > Sequence Shutter and enhanced Strobe Functionality
- > Prepared for Lens- and Pan/Tilt Unit Control
- > SDK for Windows XP/7 (32/64 Bit) and Linux available

CameraLink specific features:

- > 8, 10 or 12 Bit data (user selectable)
- > Refers to CameraLink Base and Medium Standard
- > Selectable data rate up to 65 MHz per Tap
- > Outstanding frame rates possible
- > SW-Config. tool to control the camera via frame grabber interface
- > Partial Scan



GigE Cameras

| Camera Type | Resolution [Pixel] | Sensor Size | Frame Rate | Pixel Size [μm] | Housing Size [mm] | Lens Mount |
|---------------|--------------------|-------------|------------|------------------------------|-------------------|------------|
| evo1050XFLGEA | 1.024 x 1.024 | 1/2" | 150 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2050XFLGEA | 1.600 x 1.200 | 2/3" | 85 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2150XFLGEA | 1.920 x 1.080 | 2/3" | 80 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo4050XFLGEA | 2.336 x 1.752 | 1" | 40 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo8050XFLGEA | 3.320 x 2.496 | 22.66 mm | 21 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo1050XFLGEC | 1.024 x 1.024 | 1/2" | 120 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2050XFLGEC | 1.600 x 1.200 | 2/3" | 68 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2150XFLGEC | 1.920 x 1.080 | 2/3" | 64 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo4050XFLGEC | 2.336 x 1.752 | 1" | 32 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo8050XFLGEC | 3.320 x 2.496 | 22.66 mm | 17 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |

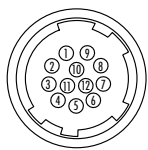
X: M = Monochrome, C = Color

CameraLink Cameras

| Camera Type | Resolution [Pixel] | Sensor Size | Frame Rate | Pixel Size [μm] | Housing Size [mm] | Lens Mount |
|---------------|--------------------|-------------|------------|------------------------------|-------------------|------------|
| evo1050XFHCPC | 1.024 x 1.024 | 1/2" | 190 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2050XFHCPC | 1.600 x 1.200 | 2/3" | 105 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo2150XFHCPC | 1.920 x 1.080 | 2/3" | 100 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo4050XFHCPC | 2.336 x 1.752 | 1" | 50 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |
| evo8050XFHCPC | 3.320 x 2.496 | 22.66 mm | 27 fps | 5.5 x 5.5 | 50 x 50 x 48 | C-Mount |

X: M = Monochrome, C = Color

Connector pin-out

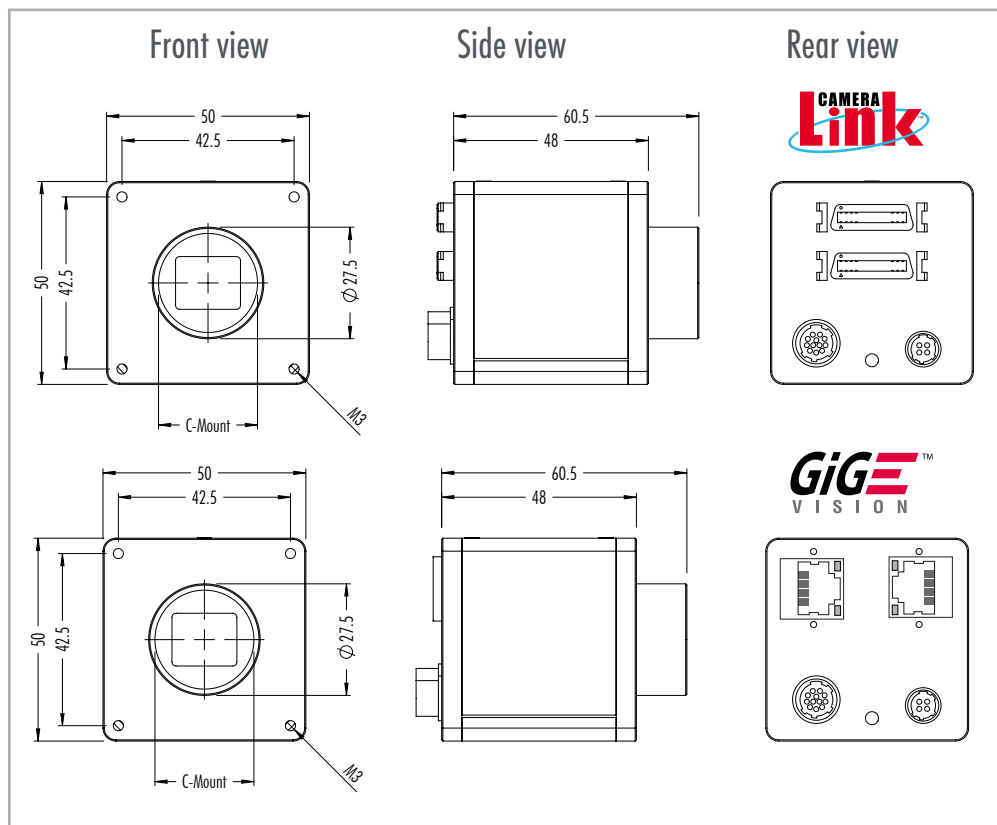


- 1 VIN- (GND)
- 2 VIN+ (10V to 25V DC)
- 3 RXD (RS232)
- 4 TXD (RS232)
- 5 IN1 (0-24V)
- 6 IN2 (0-24V)
- 7 OUT1 (open drain max. 24V, 0.3A)
- 8 OUT2 (open drain max. 24V, 0.3A)
- 9 IN3+ (RS422)
- 10 IN3- (RS422)
- 11 OUT3+ (RS422)
- 12 OUT3- (RS422)



- 1 VIN+ (10V to 25V DC)
- 2 VIN- (GND)
- 3 n.c.
- 4 n.c.

Dimensions [mm]



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



GEN<i>i>CAM



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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 five camera lines, representing state of the art camera technology which match the specific needs of our customers:

SVCam-ECO

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

SVCam-EVO

The Masterpiece of camera engineering. Combines high resolution with the highest level of speed. DualGigE- or CameraLink-output available. Find out our very unique set of features to maximize customers benefits.

SVCam-CF

Diversity and flexibility with Gigabit Ethernet or CameraLink interfaces. Coverage of most relevant CCDs in order to suit all of your applications.

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.