SVCam-svs4022

SVCam-CF Line

SVS-VISTEK

Compact 4-Megapixel Camera

This digital Machine Vision camera has a resolution of 2048 x 2048 pixel. The camera is designed to reach high frame rates at an excellent signal-to-noise ratio and is enclosed in a small housing.

Correlated Double Sampling (CDS) and 2 x14 bit A/D Converters guarantee an excellent signal to noise ratio.

The internal micro-controller allows different ways to adjust the exposure time and select trigger modes including:

- Synchronization of image capture to an external event (trigger mode)
- "Free running" with maximum frame rate
- Exposure time control via serial interface or by trigger pulse width
- Longer exposure times under low light level conditions

The family concept of SVCam series (see separate datasheet) allows to upgrade systems in order to meet new specific requirements.

GEN<i>CAM GiGE VISION CAMERA Link

Technical Highlights / Technical Data

- Progressive scan technology
- Resolution: 2048 x 2048 pixel
- Synchronization:
  - "Free running" (frame rate adjustable)
  - External trigger with internal exposure control
  - External trigger with pulse width exposure control
  - Software trigger via PC (GigE)
- Monochrome and color sensors (Bayer Pattern)
- 16MB SDRAM inside (GigE)
- Selectable AOI (GigE)
- 12 Bit video data stream
- Adjustable gain
- Auto gain (GigE)
- Strobe output (e.g. for light flash) (GigE)
- Time stamp capability (GigE)
- Low offset
- 2 x 2 binning mode
- Partial scan (Camera Link)/ AOI (GigE) mode for higher frame rates
- Standard C-Mount and M42-Mount
- 12V DC @ approx. 600mA consumption
- Operating temperature range: -10°C to +45°C
- Full 2 years warranty

Overview

SVCam-svs4022	GigE Versions			Camera Link Version
Camera Type	svs4022XOGE	svs4022XFGE	svs4022XTLGEA	svs4022XTHCPC
Resolution	2048 x 2048	2048 x 2048	2048 x 2048	2048 x 2048
Frame Rate (Hz, max.)	8*	15**	19**	25***
Pixel (µm²)	7.4 x 7.4	7.4 x 7.4	7.4 x 7.4	7.4 x 7.4
CCD-Size Equivalent	21.5 mm diag.	21.5 mm diag.	21.5 mm diag.	21.5 mm diag.
Exposure Time internal	50 µs - 60 s	50 µs - 60 s	50 µs - 60 s	116 µs - 10 s
Exposure Time external	30 µs - ∞	30 µs - ∞	30 µs - ∞	80 µs - ∞

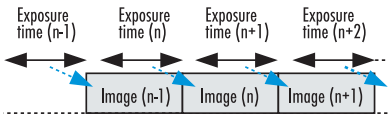
X = **M**onochrome, X = **C**olor
For more camera types see our SVCam-CF product overview.

* single tap ** dual tap
***hyper speed with 2 x 64MHz per tap

Operation Modes

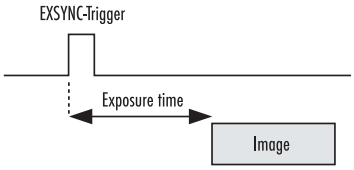
Mode: Free Running/Fixed Frequency

In this mode the camera creates all sync signals itself. Camera is connected to PC and will create images immediately.



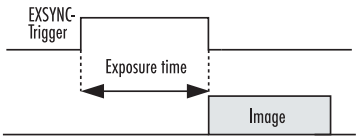
Mode: External Trigger, Internal Exposure Control

The camera needs an external trigger to output images. The exposure time is set by the internal logic inside the camera.



Mode: External Trigger, External Exposure Control

The camera needs an external trigger to output images. The exposure time is determined by the pulse width of the trigger signal and can be changed from frame to frame.



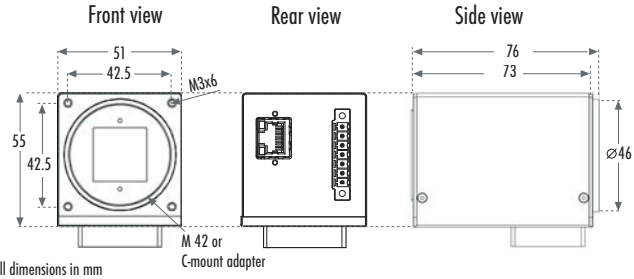
Mode: Software Trigger

The PC sends a command to the camera in order to get data.
Internal logic is set for the exposure time. Jitter must be observed.

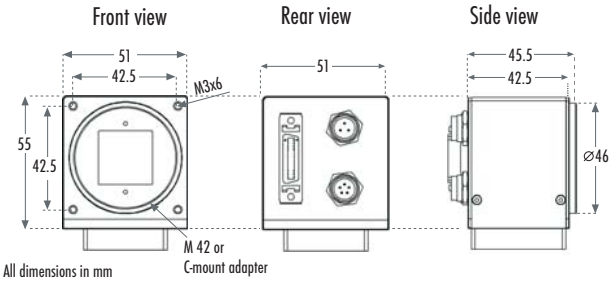
Configuration Software

The SVCam cameras come with our SVCapture(for GigE type) or ConvCam-software (for CL type, respectively), it allows easy interactive setup of all camera parameters. The software including a SDK (GigE) or DLL (CL) supports Windows XP and Windows 7 including 64 Bit operating system. A LINUX Driver is also available (GigE only). The camera can be configured using the XML file stored inside the camera (GigE). This complies also with the international GenICam standard.

Dimensions GigE Version



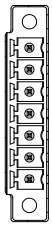
Dimensions Camera Link Version



M42 to C-Mount adapter is standard upon delivery

Connector pin-out

GigE Version



Pin 7 Strobe OUT -
Pin 6 Strobe OUT +
Pin 5 Trigger -
Pin 4 Trigger +
Pin 3 Shield
Pin 2 GND
Pin 1 +12V to +15V DC

Camera Link Version

1 Reserved (do not connect)
2 Reserved (do not connect)
3 Reserved (do not connect)
4 Tr - (Exsync GND)
5 Tr + (Exsync min 5V TTL)

1 +12 to +15V DC
2 Reserved (do not connect)
3 GND

Ordering Guide

Monochrome:	Color:	
svs4022MOGE	**svs4022COGE**	(max. 8 Hz)
svs4022MFGE	**svs4022CFGE**	(max. 15 Hz)
svs4022MTLGEA	**svs4022CTLGEA**	(max. 19 Hz)
svs4022MTHCPC	**svs4022CTHCPC**	(max. 25 Hz)

SVS-VISTEK GmbH · Muehlbachstrasse 20 · 82229 Seefeld/Germany · Tel. +49 - (0) 81 52 - 99 85 - 0 · Fax. +49 - (0) 81 52 - 99 85 - 79
info@svs-vistek.com · www.svs-vistek.com