SVCam-HR

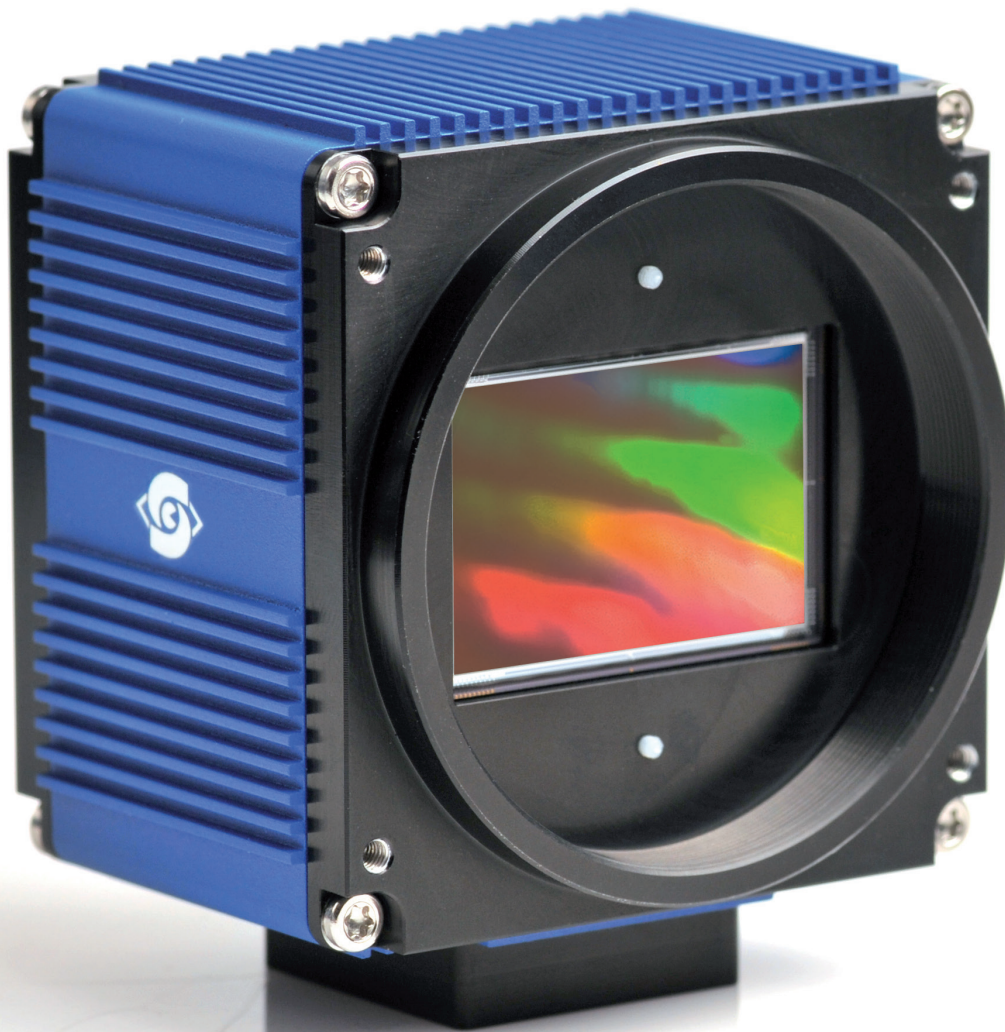## 11, 12, 16, 25 and 29 Megapixel

Scale your vision.

SVCam-HR

High Performance with High Resolution
11 to 29 Megapixel

The SVCam-HR series of cameras provide the currently highest available resolution, targeting the most challenging machine vision applications. Based on the top of the line image sensors from ON Semiconductur, the HR series is available in monochrome and colour versions with the choice of CameraLink, CoaXPress or GigE Vision interfaces.

The state-of-the-art electronic circuit designs and the integration of the dual and quad tap CCD sensors from ON Seminconductor gives the HR series the leading edge with regards to high frame rate combined with low noise performance. By incorporating Correlated Double Sampling (CDS) processing of the critical analog video signal from the CCD sensor, the noise level can be significantly reduced. Subsequent direct conversion into digital video results in superb image quality.

In addition to the wide range of high-resolution CCD sensors, the HR series also incorporates the latest CMOS sensors from ON Semiconductor. Boasting improved signal-to-noise ratio and remarkable dynamic range, these additions are the natural choice when it comes to applications that not only demand the highest quality but also increased throughput. Through the incorporation of intelligent processing, various operation modes for exposure time and trigger control are available. The compact housing design permits installation even in the most space-constrained solutions.

The SVCam-HR series provides fast return-on-investment for demanding imaging applications thanks to its unsurpassed image quality, speed performance, feature set and reliability. All integrated into a compact package.

All HR Series cameras have the following quality performance features:

> Progressive scan CCD sensors
> Global Shutter CMOS sensors
> Optional 8 or 12 Bits transferred (ADC 14 Bits)
> Monochrome and color versions (Bayer Pattern)
> Area of Interest (AOI)
> Whit Balance (auto and manual)
> Tap Balancing (auto and manual; for CCD)
> Various trigger (int./ext./free running) and exposure modes
> Gain (auto and Manual)
> LUT (12 to 8 bit)
> Various binning modes
> 11 to 29 Megapixels at optimized frame rates
> 11 to 29 Megapixels at optimized quality
> M58 lens interface, adapter for every standard available

Power over Camera Link

If high resolution and narrow cable channels are among the key data of your application, then PoCL is an approach to the solution.
> Power supply integrated into the Camera Link cable
> Camera Link standard compliant
> simplifies the installation

Real value features: With the optionally available „Canon-Adapter" you can control the focus and iris parameters of Canon „EF" lenses directly from the camera.

Features with real value: Power your LED light directly from the HR series and use it as an innovative strobe controller.

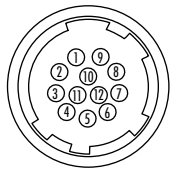| Camera Type	Sensor Size diag.	Resolution [Pixel]	Pixel Size [µm]	Architecture	Lens Mount	Dimensions [mm]	GigE	Camera Link	CoaXPress
							max. Frame Rate [fps]		
hr6040*	16.65 mm	2,832 x 2128	4.7 x 4.7	CMOS	M58/F	70 x 71 x 53**	–	115	200
hr11002	43.3 mm	4,008 x 2,672	9 x 9	CCD	M58/F	70 x 71 x 53**	6.1	10	–
hr12040*	23.5 mm	4,000 x 3,000	4.7 x 4.7	CMOS	M58/F	70 x 71 x 53**	–	65	75
hr16000	43.3 mm	4,872 x 3,248	7.4 x 7.4	CCD	M58/F	70 x 71 x 53**	4	4.6	–
hr16050	32.36 mm	4,896 x 3,264	5.5 x 5.5	CCD	M58/F	70 x 71 x 53**	10.8	10	–
hr16070	43.2 mm	4,864 x 3,232	7.4 x 7.4	CCD	M58/F	70 x 71 x 53**	11	10.2	–
hr25000*	32.5 mm	5,120 x 5,120	4.5 x 4.5	CMOS	M58/F	70 x 71 x 53**	–	30	95
hr29050	43.47 mm	6,576 x 4,384	5.5 x 5.5	CCD	M58/F	70 x 71 x 53**	6.2	5.9	–

* Preliminary   ** +/– 2mm, depending on interface

GigE models also have these additional properties:

> Dual GigE Vision data interface (Gigabit Ethernet Standard)
> Fully GigE Vision and GenIcam standard compatibility
> Data secure transmission
> Two parallel Ethernet connections allow double the data rates
> Cable length up to 100 meters
> Flat Field Correction
> SDK for Windows XP/8 (32/64 bit) and Linux

Special Features of the HR Camera Link and CoaXPress Series:

> Camera Link data interface
> CoaXPress data interface
> GeniCam compatible
> Particle Image Velocimetry (PIV-Mode)
> Optional Power over Camera Link (PoCL)
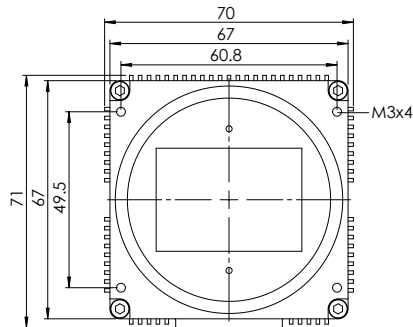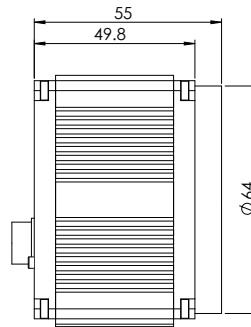> Cable length up to 68 meters with CXP

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)
8 OUT2 (open drain)
9 IN3+ (RS422)
10 IN3- (RS422)
11 OUT3+ (RS422)
12 OUT3- (RS422)

Dimensions [mm]
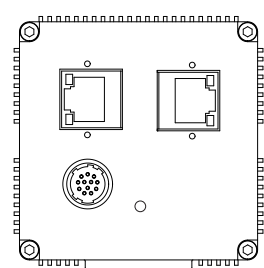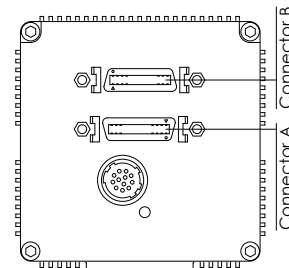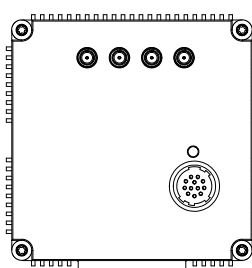

Front view

Side view

Rear view

Application Areas

SVCam cameras can be found in a broad range of industries:
> Aerospace
> Automotive
> Beverage
> Food
> Information
> Mechanical engineering
> Medical technology
> Optical metrology
> Pharmaceutical
> Photovoltaic/power engineering
> Plastics
> Printing
> Semiconductor
> Wood and Timber
> Traffic monitoring
> Intelligent Transportation Systems (ITS)

SVCam – High-performance CCD cameras made in Germany

„SVCam" is a universal family of machine vision cameras, representing the leading edge of performance, with a modular design that allows tailoring to specific customer requirements:

SVCam-ECO

Best choice for the small wallet. Impresses with its minimal footprint, without compromising on performance. VGA up to 5 megapixel. GigE Vision interface featuring PoE. Can be delivered in a housing with high IP rating (BlackLine series).

SVCam EXO

The natural choice for users requiring a high degree of flexibility. Featuring a wide range of CCD and CMOS sensors, paired with GigE Vision, CameraLink or USB3 Vision interface. Incorporates a unique LED illumination driver for individual control of up to 4 strobe lights.

SVCam-EVO

Combining high-resolution performance of CCD and CMOS sensors up 12 Megapixels with unsurpassed speed performance of Dual GigE Vision or Camera Link interfaces. Offering a wide range of user-friendly features and functions.

SVCam-HR

The top of the line product range targeting applications for which a compromise on quality is not an option. Fulfilling even the toughest demands for resolution combined with extremely high data rate.

SVIndividual

Application specific tailoring of cameras and imaging components to your unique requirements. SVS-VISTEK has more than two decades of experience in providing customized solutions for system integrators and builders. Ranging from non-branded housings to modification of mechanical or circuit designs. Challenge us with your ideas!

Supported Interfaces

CoaXPress
The next generation digital interface

GEN<i>CAM

GiGE VISION™

CAMERA Link

USB3 VISION™

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

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Scale your vision.