

ECO Series
VGA TO 12 MEGAPIXEL

LED SEQ STT BST PLC

ECO GigE Vision Cameras
Unsurpassed flexibility with great performance and affordability. This characterizes the ECO series best. You will find all popular CCD-Sensors from ON Semi and Sony in the ECO series. These cameras are available in more than 100 different versions with resolutions from VGA up to 12 megapixels. ECO series cameras are designed to achieve high frame rates while maintaining excellent signal-to-noise ratios and at the same time providing a small footprint. Supporting the standards of GigE Vision™ and GenCam™ the ECO series opens up new dimensions for integration into your application SW-Environment.

- Special Features of the ECO Series:**
- > Progressive Scan CCD sensors
 - > Area of Interest modes (AOI)
 - > 8/12 Bit video data stream (14 Bit ADC)
 - > 64 MB frame buffer
 - > White balance for color versions (one push or manual)
 - > Wide range Power conditions: 10 - 25 V DC
 - > Sequence-Shutter and enhanced Strobe-Functionality
 - > Up to 4 x direct drive and control of LED lighting
 - > Dimensions [mm]: 38 x 38 x 33/45

ECO Series [MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]	IP 67
eco618	0.3	656 x 492	1/4"	Sony ICX618	5.6	CCD	C/CS	155
eco424	0.3	656 x 492	1/3"	Sony ICX424	7.4	CCD	C/CS	124
eco414	0.3	656 x 492	1/2"	Sony ICX414	9.9	CCD	C/CS	125
eco415	0.4	780 x 580	1/2"	Sony ICX415	8.3	CCD	C/CS	86
eco204	0.8	1,024 x 776	1/3"	Sony ICX204	4.65	CCD	C/CS	47
eco445	1.3	1,296 x 964	1/3"	Sony ICX445	3.75	CCD	C/CS	30
eco267	1.4	1,392 x 1,040	1/2"	Sony ICX267	4.65	CCD	C/CS	25
eco285	1.4	1,392 x 1,040	2/3"	Sony ICX285	6.45	CCD	C	34
eco274	2.1	1,600 x 1,236	1/1.8"	Sony ICX274	4.4	CCD	C/CS	26.5
eco655	5	2,448 x 2,050	2/3"	Sony ICX655	3.45	CCD	C/CS	10
eco625	5	2,448 x 2,050	2/3"	Sony ICX625	3.45	CCD	C/CS	20
eco1050	1	1,024 x 1,024	1/2"	ON-Semi KAI-01050	5.5	CCD	C	56.1
eco674	2.8	1,920 x 1,460	1/2"	Sony ICX674	4.54	CCD	C	19.9
eco4050	4	2,336 x 1,752	1"	ON-Semi KAI-04050	5.5	CCD	C	16.8
eco695	6	2,752 x 2,204	1"	Sony ICX695	4.54	CCD	C	10.1
eco815	9	3,360 x 2,712	1"	Sony ICX815	3.69	CCD	C	7
eco834	12	4,224 x 2,838	1"	Sony ICX834	3.1	CCD	C	5.5

POE versions on request

EVO Series
1 TO 8 MEGAPIXEL

LED SEQ STT BST PLC

EVO GigE Vision Cameras
With their cutting-edge electronics design and the use of quad-top CCD- or CMOS sensors the EVO cameras offer very high frame rates at extremely low noise levels. Sophisticated processing of the critical analog CCD video signal by Correlated Double Sampling (CDS) leads to significant noise reduction. Straight forward conversion into digital signals results in an excellent signal-to-noise ratio. Additionally, the integration of intelligent processing offers various modes for exposure time and trigger control settings. The compact housing allows installation even in limited space conditions.

- Special Features of the EVO GigE Series:**
- > Dual GigE Vision Data Interface
 - > Cable lengths up to 100 meters are possible
 - > Any desired AOI (Area Of Interest) possible
 - > SDK for Windows (32/64 bit) and Linux available
 - > 2 x direct drive and control of LED lighting
 - > 128 MB frame buffer
 - > Dimensions [mm]: 50 x 50 x 47

EVO Camera Link Cameras
High performance thanks to mature sensor knowledge. Precisely this allows the extra frame rate in the Camera Link versions of the EVO - often critical to your advantage. There is a suitable model for each task. Identical and easy integration into your system and maximum camera technology in the smallest package. This was our goal in the development of the EVO.

- Special Features of the EVO Camera Link Series:**
- > 1, 2, 4 and 8 megapixel, progressive scan sensors
 - > Camera Link - Medium configuration (2 connectors)
 - > C-mount and M42 lens mount options
 - > Highest frame rate
 - > 128 MB frame buffer
 - > Dimensions [mm]: 50 x 50 x 47

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE max. Frame Rate [fps]	Camera Link max. Frame Rate [fps]
evo1050	1	1,024 x 1,024	1/2"	ON-Semi KAI-01050	5.5	CCD	C	-	180
evo2050	2	1,600 x 1,200	2/3"	ON-Semi KAI-02050	5.5	CCD	C	81.8	106
evo2150	2	1,920 x 1,080	2/3"	ON-Semi KAI-02150	5.5	CCD	C	78	-
evo4050	4	2,336 x 1,752	1"	ON-Semi KAI-04050	5.5	CCD	C	41.6	-
evo4070	4	2,048 x 2,048	21.43 mm	ON-Semi KAI-04070	7.4	CCD	M42	39.3	-
evo8051	8	3,296 x 2,472	4/3"	ON-Semi KAI-08051	5.5	CCD	M42	21.8	26.8

EXO Series
1.6 TO 31.4 MEGAPIXEL

LED SEQ STT BST PLC

The EXO Concept
The EXO series is the perfect choice for system integrators with ever changing tasks. Simple and scalable integration with maximum functionality was our objective. The aluminum unbody housing is precisely machined with excellent thermal and mechanical properties and creates the platform for a complete offering of sensors and interfaces. A wide range of the latest CMOS and CCD sensors from Sony and CMOSIS makes it easy to select the right camera for virtually any application. On the interface side, the choices are GigE Vision, Camera Link Base or USB3.0.

All SVCam models incorporate the same full set of features - a highlight is the ability to control and power independent 4 LED lights - all 4 lights individually controlled by the camera.

EXO Camera Link Cameras
EXO Camera Link models let you maintain the existing and proven infrastructure for years to come, while making use of the newest range of image sensors. The serialized interface has gained wide popularity and acceptance thanks to its high bandwidth. The EXO series was the first Camera Link model to include features such as a 4 I/O strobe controller and look up table.

EXO GigE Vision Cameras
EXO series cameras with GigE Vision interface give your applications an extremely high scalability. Quick and easy hardware interchangeability results in shorter design cycles and reduced development costs. Further value is added to your application by a virtually limitless feature set. As an example, the 4 I/O LED driver with standardized software control.

EXO USB3 Vision Cameras
The EXO is one of the most flexible and scalable cameras for the industrial market segment. The USB3 Vision interface is easy to integrate in your system, with a data rate up to effective 350 MB/sec. The time to market for applications is shortened, reducing costs even further. Power and trigger the camera through a single interface connection and reduce cable complexity. EXO provides plug-and-play capability for the whole range of 2.3 to 31 MP resolution.

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]
exo273	1.6	1,440 x 1,080	1/2.9"	Sony IMX273	3.45	CMOS	C	79
exo174	2.3	1,920 x 1,200	1/1.2"	Sony IMX174	5.86	CMOS	C	52
exo249	2.3	1,920 x 1,200	1/1.2"	Sony IMX249	5.86	CMOS	C	41
exo252	3.1	2,048 x 1,536	1/1.8"	Sony IMX252	3.45	CMOS	C	-
exo265	3.1	2,048 x 1,536	1/1.8"	Sony IMX265	3.45	CMOS	C	39
exo4000	4	2,048 x 2,048	1"	CMOSIS CMV4000	5.5	CMOS	C	28
exo250	5	2,448 x 2,048	2/3"	Sony IMX250	3.45	CMOS	C	23
exo250 Z**	5	2,448 x 2,048	2/3"	Sony IMX250	3.45	CMOS polar.	C	23
exo264	5	2,448 x 2,048	2/3"	Sony IMX264	3.45	CMOS	C	23
exo694	6	2,752 x 2,200	1"	Sony ICX694	4.54	CCD	C	25
exo428	7.1	3,208 x 2,200	1.1"	Sony IMX428	4.54	CMOS	C	16
exo255	8.8	4,096 x 2,160	1"	Sony IMX255	3.45	CMOS	C	13.5
exo267	8.8	4,096 x 2,160	1"	Sony IMX267	3.45	CMOS	C	28
exo814	9	3,360 x 2,712	1"	Sony ICX814	3.69	CCD	C	18
exo253	12.3	4,096 x 3,000	1.1"	Sony IMX253	3.45	CMOS	C	9
exo304	12.3	4,096 x 3,000	1.1"	Sony IMX304	3.45	CMOS	C	20
exo183*	20.2	5,496 x 3,672	1"	Sony IMX183	2.4	CMOS	C	5

* Rolling Shutter ** Polarized version of IMX250 sensor

EXO USB3 / GigE Cameras with M42 mount
The EXO is expanding its range of resolutions. The new models have fast USB3 / GigE Vision interfaces and provide image resolutions of up to 31 megapixels. The sensors have large 3.45 µm pixels, delivering an excellent dynamic range up to 72 db and high light sensitivity. Due to the sensor size, the cameras come with a M42 mount.

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]
exo387	16.8	5,456 x 3,076	4/3	Sony IMX387	3.45	CMOS	M42	7.4
exo367	19.6	4,416 x 4,428	4/3	Sony IMX367	3.45	CMOS	M42	6.2
exo342	31.4	6,464 x 4,852	27.9	Sony IMX342	3.45	CMOS	M42	3.8

HR Series
UP TO 122 MEGAPIXEL

LED SEQ STT BST PLC

HR GigE / 10 GigE Vision Cameras
Excellent image quality at the highest resolutions with the most flexible interface is the domain of the HR GigE. The dual GigE interface doubles the transmission speed on standard GigE Ethernet lines to approx. 240 MB / s. The new 10 GigE interface offers almost ten times the transmission power with unchanged flexibility. 4 x direct drive and control of LED lighting. GigE Vision, Camera Link and USB3 supported. logical trigger functions. GenCam compliant. Dimensions [mm]: C-mount: 50 x 50 x X (depending on sensor) M42: 55 x 55 x X (depending on sensor) Operating temperature [C°]: -10 up to 60

HR Camera Link Cameras
Our sophisticated sensor knowledge enables the Camera Link versions of the HR series the fast and direct connection to the sensor - often critical to your advantage. Available resolutions are 16 to 120 megapixels with the best of the CCD and new CMOS technology. 2-top or 4-top and newest high-speed CMOS sensors are optimally supported with Camera Link base, medium or full standard.

HR CoaXPress Cameras
Outstanding image quality is the core competence of the HR Series. Nonetheless, the HR Series achieves highest frame rates at highest resolutions. The CoaXPress interface of the HR delivers up to 25 GB/s of image data. Global Shutter and Rolling Shutter models are available. The HR Series is characterized by a high S/N ratio and an exceptionally homogeneous image.

Model	[MP]	Resolution [pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]
hr16050	16	4,896 x 3,264	32.36 mm	ON-Semi KAI-16050	5.5	CCD	M58/F	8
hr16070	16	4,864 x 3,232	43.2 mm	ON-Semi KAI-16070	7.4	CCD	M58/F	8.8
hr387*	16.8	5,456 x 3,076	21.7 mm	Sony IMX387	3.45	CMOS	M58/F	33.4
hr25	25	5,120 x 5,120	32.5 mm	ON-Semi Python 25K	4.5	CMOS	M58/F	42***
hr29050	29	6,576 x 4,384	43.47 mm	ON-Semi KAI-29050	5.5	CCD	M58/F	6.2
hr342*	31.4	6,464 x 4,852	27.9 mm	Sony IMX342	3.45	CMOS	M58/F	35.4***
hr51*	51	8,424 x 6,032	35 mm	GMX4651	4.6	CMOS	M58/F	11***
hr120**	122	13,272 x 9,176	APS-H	Canon	2.2	CMOS	M58/F	6.7

*Preliminary, **Rolling Shutter, ***10GigE / NBASET

SHR Series
47 TO 151.2 MEGAPIXEL

LED SEQ STT BST PLC

SHR 10 GigE Vision Cameras
The new 10 GigE interface allows almost 10 times the transmission speed of a standard GigE Vision line. The convincing advantages such as long data lines, GenCam and the flexibility of GigE Vision are retained and are now also available at high speed. Thus, 10GigE also qualifies for the SHR series, which relies on high bandwidths due to its super high resolution and 12 bit mode for highest dynamic range. With a flexible M72 thread and exceptional image quality, the SHR is ideal for the most demanding image processing tasks.

SHR Camera Link Cameras
Enhance existing Camera Link architectures seamlessly, the SHR significantly boost bandwidth capability with the Camera Link 80-bit Deca upgrade. Employing as many as 16 taps, the sensor delivers its 47 megapixels in the finest CCD quality. The unique tap balancing, devised by SVS-Vistek, is renowned for being among the best - worldwide. It ensures effortless integration of the camera into your application.

SHR CoaXPress Cameras
The SHR Series offers highest resolutions up to 151 MP with Rolling Shutter sensors and CoaXPress for quality control. Excellent temperature management ensures optimum image quality even with the large sensors. The SHR CoaXPress is one of the most powerful interface standards in industrial image processing and the SHR CXP Series benefits from its high bandwidth with its large images. The sophisticated 4 I/O system is the basis for a fast integration into the application.

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]
shr47	47	8,856 x 5,280	56.7 mm	ON-Semi KAI-47051	5.5	CCD	M72	7
shr411	151.2	14,192 x 10,640	66.7 mm	Sony IMX411	3.76	CMOS	M72	6.2*
shr461*	101.2	11,656 x 8,742	55 mm	Sony IMX461	3.76	CMOS	M72	8.7*

* Preliminary,

Tracer Series
4 TO 20 MEGAPIXEL WITH MFT BAYONET

LED SEQ STT BST PLC

Tracer GigE Vision and USB3 Cameras
The lens mount of the Tracer is a Micro Four Thirds (MFT) mount, covering all electric connections to have full control on lens zoom, focus and aperture. The optical lens specification of MFT guarantees best optical results in combination with state-of-the-art CMOS and CCD lenses. The MFT mount opens up a wide range of high-quality lenses for the Tracer. Control options for exposure time, focus, zoom, aperture and strobe lighting through a single GenCam interface. The latest sensors we provide with the Tracer deliver up to 20 MP of resolution

- Special Features of the Tracer Series:**
- > Micro-Four-Thirds bayonet mount
 - > Fast user control of zoom, aperture and focus
 - > Lens settings controlled by Ethernet interface or USB3
 - > Data interface: Dual GigE (EVO) / GigE or USB3 (EXO)
 - > User selectable AOI (Area Of Interest)
 - > SDK for Windows (32/64bit) and Linux available
 - > Frame buffer: 256 MB (EXO) / 128 MB (EVO)
 - > Dimensions EVO [mm]: 58 x 58 x 59
 - > Dimensions EXO [mm]: 58 x 58 x 45

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	max. Frame Rate [fps]
exo304 TR	12.3	4,096 x 3,000	1.1"	Sony IMX 304	3.45	CMOS	MFT	-
exo387 TR	16.8	5,456 x 3,076	4/3"	Sony IMX 387	3.45	CMOS	MFT	22
exo367 TR	19.6	4,416 x 4,428	4/3"	Sony IMX 367	3.45	CMOS	MFT	19
exo183 TR*	20.2	5,496 x 3,672	1"	Sony IMX 183	2.4	CMOS	MFT	-

*Rolling Shutter

Features

- LED: PWM power drives for LED lights
- STT: Safe trigger technology
- PLC: Programmable I/O logic
- SEQ: Programmable sequencer for shutter and LEDs
- BST: Burst mode technology
- MICRO: Dynamic lens control

SVS-Vistek – the Partner for your Vision!
Ask your local distributor to get the perfect picture.

Light:

Lenses:

Compatibility

SDK / Platforms

Latest technology and multi-platform support

- > GenTL producer
- > Microsoft Windows
- > Linux
- > ARM / Jetson TX1 / TX2

Windows 10, NVIDIA, OpenCV, Pleora Technologies, National Instruments, MathWorks, Impuls, COGNEX, EVT, DATALOGIC, NORPIX, Digital Video Recording Software

