



a TKH Vision brand

EXO USB3 Vision

# exo541MU3

The SVCam 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 360 MB/sec. The time to market for applications is shortened, saving cost even further. Power the camera via the interface and reduce cable complexity.

## Technical Highlights

- Up to 360 MB/s effective transfer rate
- Leverages existing infrastructure for cables and connectors
- Powers camera with up to 4.5 W
- GenICam compliant
- Cost effective / Easy implementation and interfacing



**LED**  
4 INTEGRATED  
LED-CONTROLLERS

**SEQ**  
INTEGRATED  
SEQUENCER

**STT**  
SAFE TRIGGER  
TECHNOLOGY

**PLC**  
PROGRAMMABLE  
LOGIC CONTROL

## Specifications

Resolution [MP]	20.3 MP
Resolution (h x v)	4504 x 4504 px
Frame rate(max.)	18.4 fps
Chroma	mono
Interface	USB3.0 (Micro-B)

## Sensor

Sensor	IMX541LLA
Manufacturer	Sony
Sensor type	Area CMOS
Shutter type	global shutter
Sensor size (h x v)	12.34 x 12.34 mm
Optical diagonal	17.45 mm
Sensor format	17.5mm (Type 1.1)
Pixel size (h x v)	2.74 x 2.74 $\mu\text{m}$

## Camera

Exposure modes	MANUAL;AUTO;EXTERNAL
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	15 $\mu\text{s}$
Exposure time (max)	60 sec (external $\infty$ )
Pixel format / max	mono8, mono12packed / 12 bit
Gain modes	manual, auto
S/N ratio (max)	39.2 dB (dep. on environment)
Dynamic range (max)	72 dB (dep. on environment)
Internal memory	256 MB SDRAM, 32 MB Flash

## Feature Set

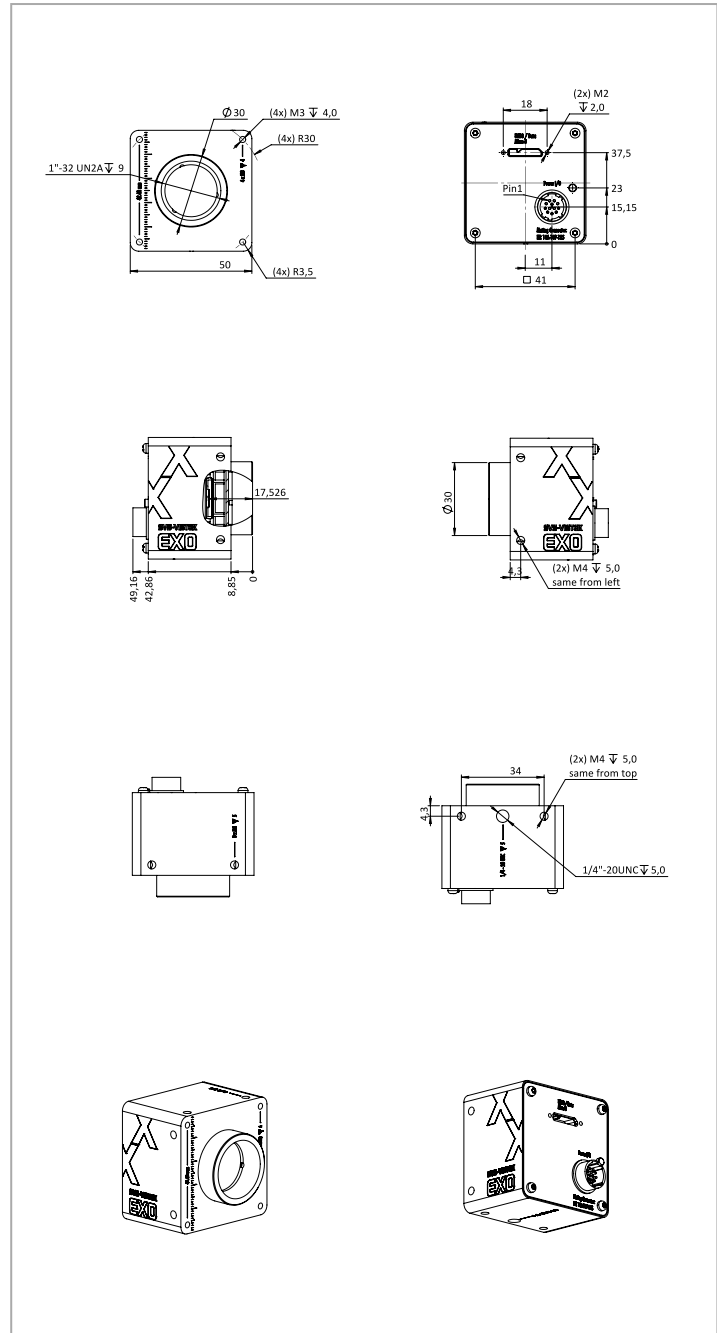
AOI	yes
LUT	yes
Offset	yes
Binning	yes
Image flip	yes
Shading correction	yes
Defect pixel correction	yes
Sequencer	yes

## Housing

Lens mount	C-Mount
Dimensions (w x h x d)	50 x 50 x 42.7 mm
Weight	140 g
Operating temperature (housing)	-10 to 65 $^{\circ}\text{C}$
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP40
Filter-/Coverglass	K9 - AR coating - 400-850nm

## I/O-Interfaces

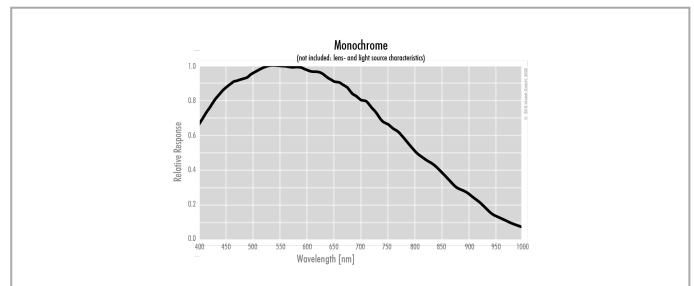
Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x
I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	4 W (dep. on operating mode)



## Pinout Mating Connector

Hirose 12 Pin	1	VIN - (GND)	7	OUT1 (open drain)
	2	VIN + (10 V to 25 V DC)	8	OUT2 (open drain)
	3	IN 4 (RXD RS232)	9	IN 3 + (opto In +)
	4	OUT 4 (TXD RS232)	10	IN 3 - (opto In -)
	5	IN 1 (0 - 24V)	11	OUT 3 (open drain)
	6	IN 2 (0 - 24V)	12	OUT 0 (open drain)

## Spectral Response \*



\* Sensor data – excludes camera cover- or IR-cut filter characteristics

**SVS-VISTEK GMBH**

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