Allied Vision

EXO GigE

exo541CGE

General

Model:	exo541CGE
Product code(s):	F002167
Product series:	EXO GigE
Status:	Available

Sensor

Sensor type:	Area scan
Chroma:	Color
Spectrum:	Visible
Spectral range:	400 nm to 1000 nm
Resolution:	4,504 × 4,504 (20.30 MP)
Sensor model:	Sony IMX541LQA
Sensor architecture (material):	cmos
Shutter type(s):	global-shutter
Sensor size:	12.34 × 12.34 mm (17.45 mm, 17.5mm (Type 1.1))
Pixel size:	2.74 µm × 2.74 µm

Pixel formats

Sensor bit depth:	8-Bit,12-Bit,12-Bit
RGB pixel formats:	bayer8, bayer12packed

Imaging performance

Dynamic range:	72 dB

Timing and gain

Max. frame rate:	6 fps
Max. frame rate burst:	15 fps
Exposure time:	60 µs (max)
Gain:	0.0 dB to 48.0 dB

I/Os and power

Non-isolated lines:	0 x LVDS input, 0 x LVDS output0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output
Specific non-isolated lines:	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output
Opto-isolated lines:	1 x Optical isolated input, 0 x Optical isolated Input,
Power supply:	10 to 25VDC
Power consumption:	External: 4.5 W (typical at 12 VDC)

Operating conditions

Operating temperature (housing):	-10 °C to 65 °C

Mechanical properties

Body dimensions (L x W x H in mm):	43 × 50 × 50
Filter/protection glass:	IR-Cut 680
IP class:	IP40
Lens mount(s):	C-Mount
Weight:	143 g

On-board memory and FPGA

Image buffer (RAM):	192 MByte
Non-volatile memory (Flash):	32 KByte

Interfaces

Digital interface:	gige
Interface connector:	(RJ-45)

FW features - image control

Exposure modes:	Manual, Auto, External
Gain modes:	Auto, Manual

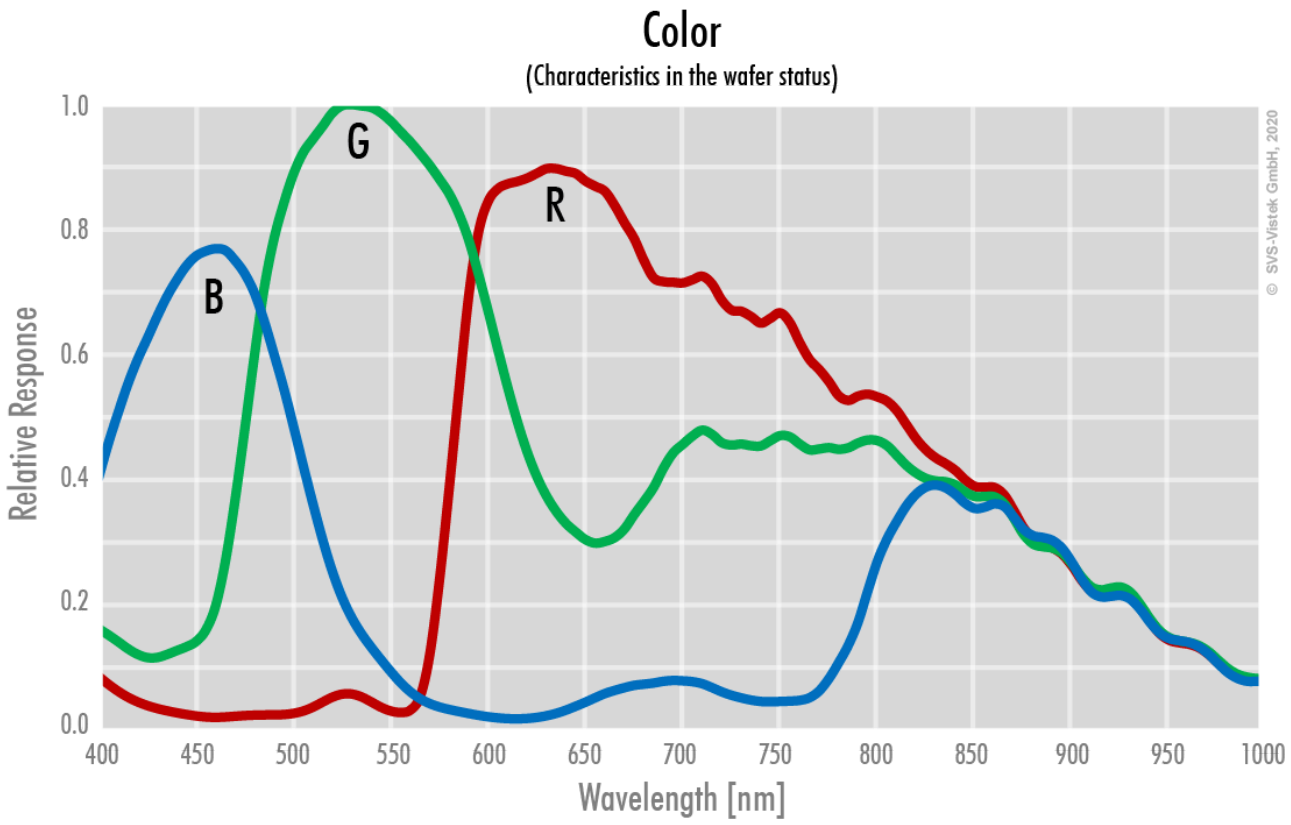
FW features - image control

White balance modes:	auto, manual
Image control features:	FW Features - Image Control

FW features - camera control

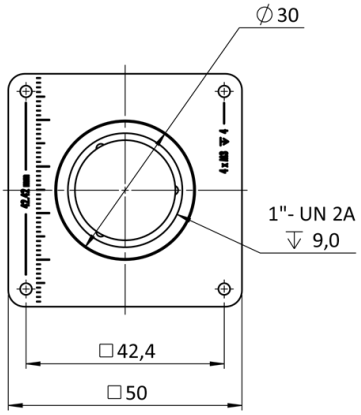
Trigger modes/sync:	INTERNAL,SOFTWARE,EXTERNAL
Camera control features:	PTP, BurstMode, User Sets, POE, PWM(4), Sequencer,

Quantum Efficiency

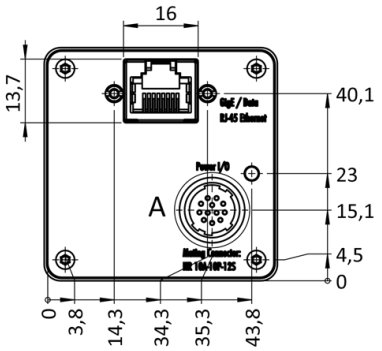


Technical Drawing

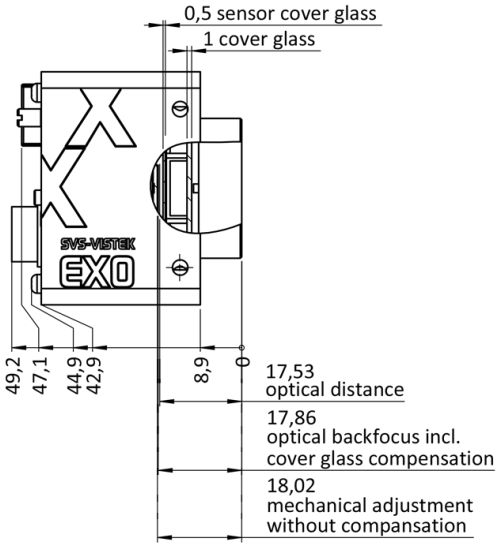
front



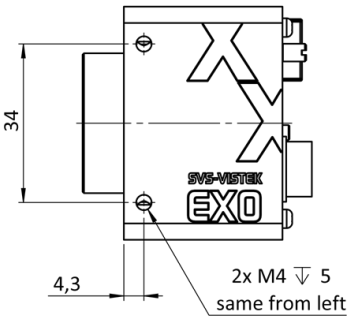
back



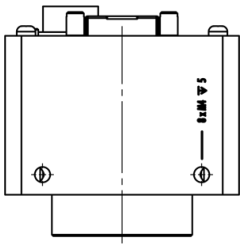
cross section



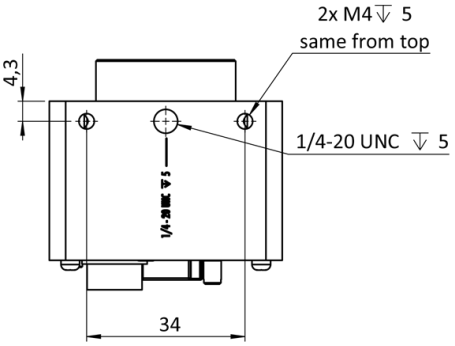
right side



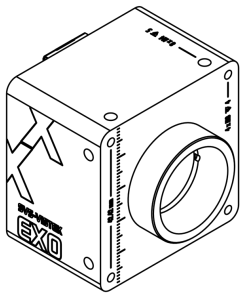
top

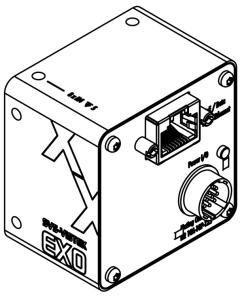


bottom



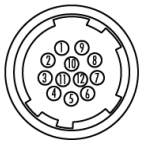
3D





I/O pin assignment

Hirose 12 Pin



1	VIN –	(GND)	7	OUT 1	(open drain)
2	VIN +	(10 V to 25 V DC)	8	OUT 2	(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)