

SHR 10GigE

# shr411CXGE

The high resolution SHR series offers outstanding image quality. This is made possible by the excellent physical characteristics of large pixels in large format sensors. The thermally highly optimized housing guarantees highest optical precision. The large M72 lens mount can be adapted to any lens. The economical and high-performance 10GigE interface offers high data transfer speeds of up to 1.1 GB/s for these large images. A special frame grabber is not required.

## Technical Highlights

- User defined shading correction
- Custom Defect Pixel Correction
- Extremely low noise
- Excellent dynamic range
- high performance 10GigE interface
- Integrated 4-channel LED strobe controller
- Industrial TTL-24V I/O Interface with Safe Trigger, programmable logic functions, sequencers and timers, RS232



**LED**  
4 INTEGRATED  
LED-CONTROLLERS

**SEQ**  
INTEGRATED  
SEQUENCER

**STT**  
SAFE TRIGGER  
TECHNOLOGY

**PLC**  
PROGRAMMABLE  
LOGIC CONTROL

## Specifications

Resolution [MP]	151 MP
Resolution (h x v)	14192 x 10640 px
Frame rate (max.)	6.1 fps
Chroma	color
Interface	10GigE Vision (RJ-45)

## Sensor

Sensor	IMX411AQR
Manufacturer	Sony
Sensor type	Area CMOS
Shutter type	rolling shutter
Sensor size (h x v)	53.36 x 40.01 mm
Optical diagonal	66.69 mm
Sensor format	Medium Format
Pixel size (h x v)	3.76 x 3.76 µm

## Camera

Exposure modes	MANUAL;AUTO;EXTERNAL
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	60 µs
Exposure time (max)	10 sec (external ∞)
Pixel format / max	bayer8, bayer12, bayer16 / 16 bit
Gain modes / max	manual, auto / 36 dB
S/N ratio (max)	46.7 dB (dep. on environment)
Dynamic range (max)	82 dB (dep. on environment)
Internal memory	512 MB SDRAM

## Feature Set

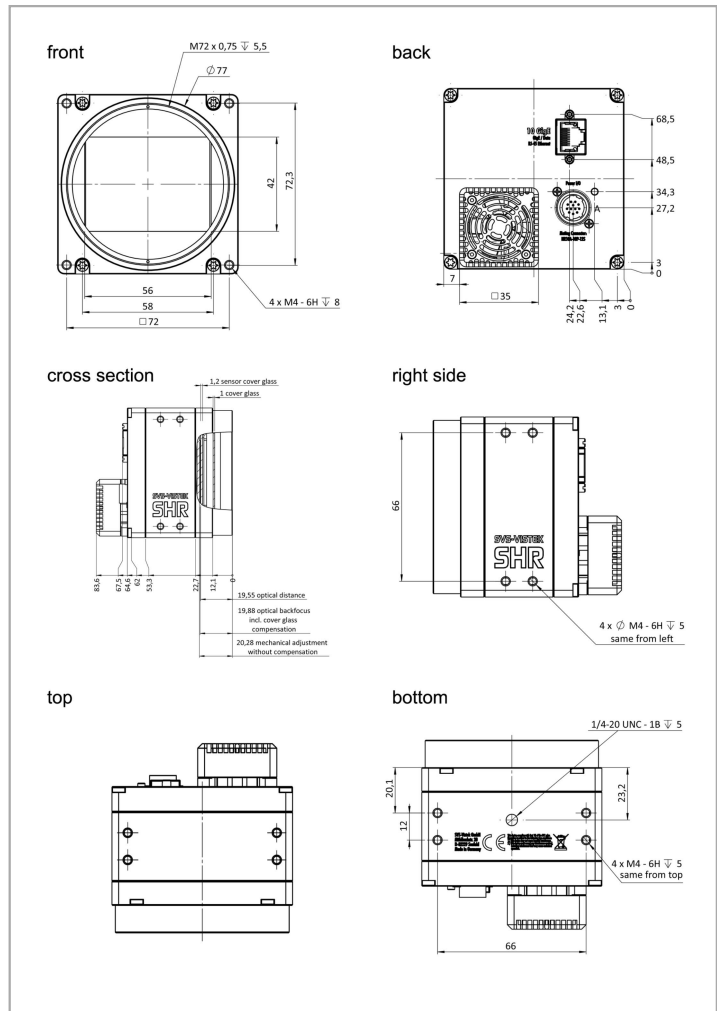
Manual white balance	yes
Automatic white balance	yes
LUT	yes
Offset	yes
Binning	yes
Image flip	yes
Shading correction	yes (external)
Defect pixel correction	yes
Sequencer	yes
POE	yes (POE+ optional)

## Housing

Lens mount	M72x0,75
Dimensions (w x h x d)	80 x 80 x 83 mm
Weight	580 g
Operating temperature (housing)	-10 to 65 °C
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP30
Filter-/Coverglass	IR-Cut - 680nm

## I/O-Interfaces

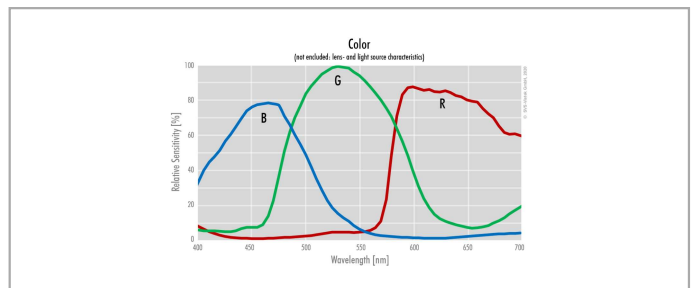
Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x
I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	19 W (dep. on operating mode)



## Pinout Mating Connector

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

## Spectral Response \*



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