

shr661MXGE

128 Megapixel Mono Area Scan Camera with 10GigE Interface

The AVT shr661MXGE is a large-format monochrome area scan camera built on the 127.6 megapixel Sony IMX661 global shutter CMOS sensor, designed for applications where extremely high resolution and distortion-free capture of moving subjects are essential. The 46.2 × 32.87 mm Type 3.6 sensor with 3.45 μm pixels resolves 13,392 × 9,528 pixels in a single capture at up to 8.2 fps. A standard RJ-45 10GigE interface under GigE Vision 2.0 transmits image data over existing network infrastructure, with Power over Ethernet available in the -P option. On-board shading correction, flat field correction, LUT and defect pixel correction deliver 74.4 dB dynamic range and 41.5 dB SNR for electronics inspection, flat panel inspection, metrology and digitization.



RESOLUTION

128 MP

13,392 × 9,528

FRAME RATE

8.2 fps

Full Resolution

INTERFACE

10 GigE

RJ-45 GigE Vision 2.0

SENSOR

Sony IMX661

Type 3.6 CMOS

Main Features

- 127.6 MP Sony IMX661 Type 3.6 Monochrome CMOS
- Global shutter for distortion-free motion capture
- 10GigE (RJ-45) interface, GigE Vision 2.0
- Power over Ethernet, PoE+ (option -P)
- 74.4 dB dynamic range, 41.5 dB SNR
- 32 MByte non-volatile on-board memory
- LUT, mirror image, DPC, shading correction, FFC
- Sequencer, user sets and 4 × PWM control

Applications

- Electronics Inspection
- Flat Panel Display Inspection
- Metrology
- Document / Film Digitization
- Aerial and Large Area Imaging

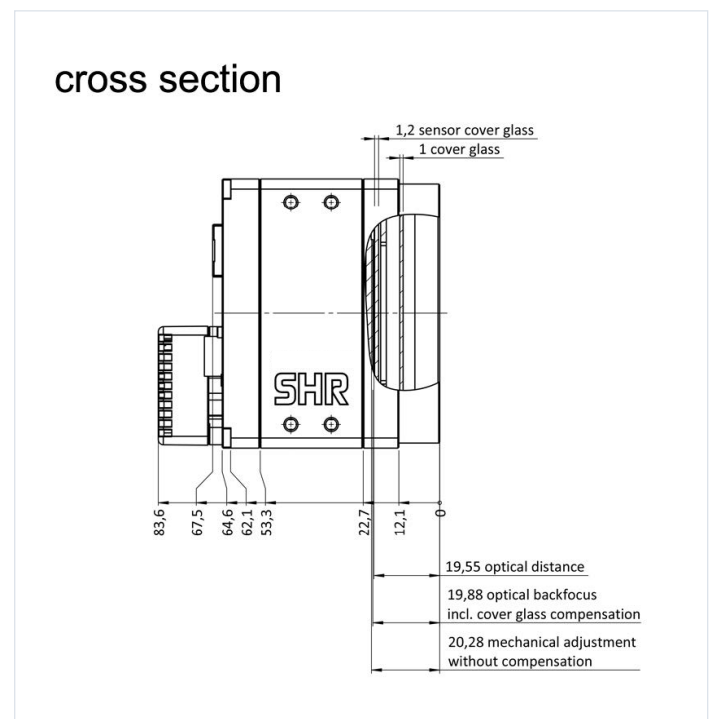
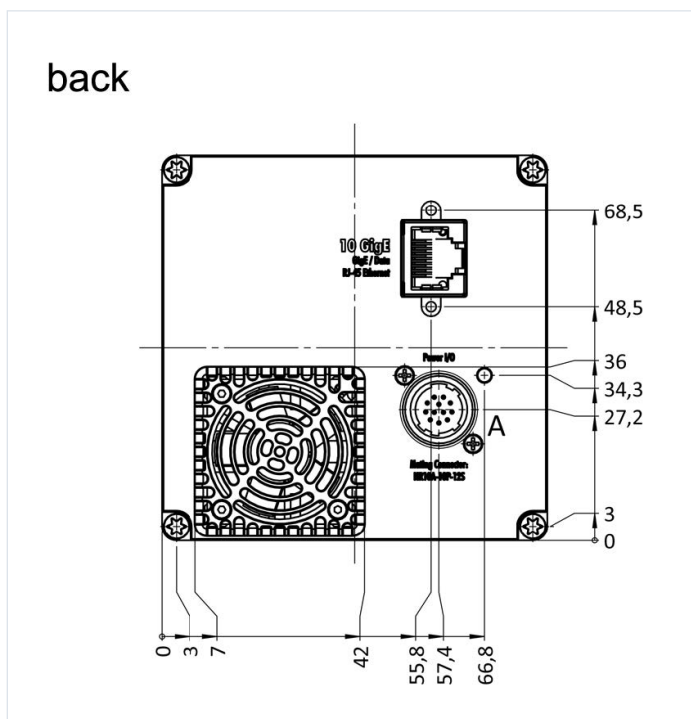
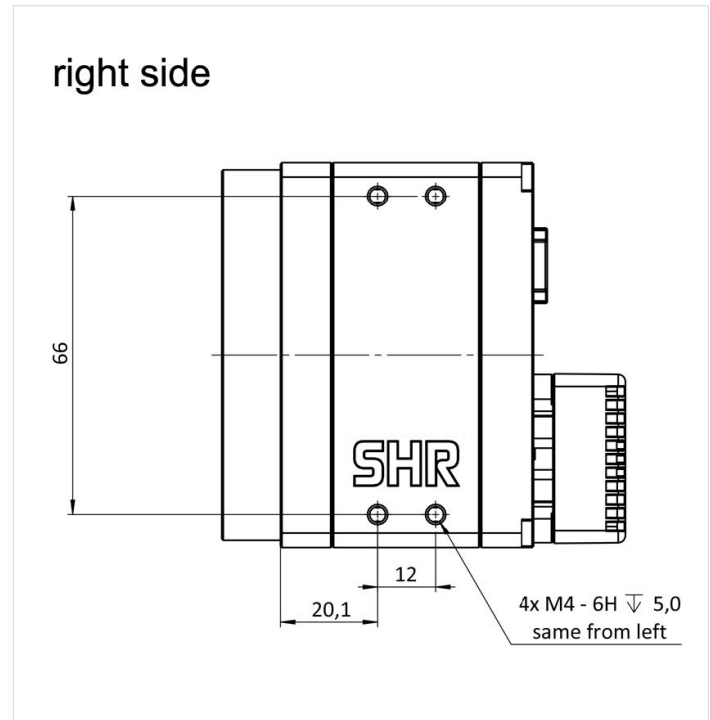
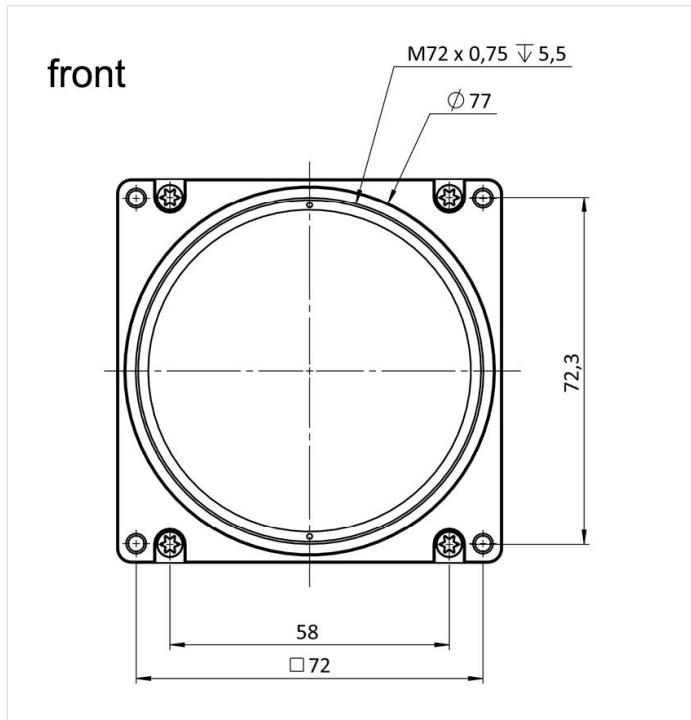
Specifications

Model	shr661MXGE
Product Code	F004143
Resolution (H x V)	13,392 x 9,528
Sensor	Sony IMX661, CMOS, Area Scan, Monochrome
Sensor Size (Diagonal)	46.20 mm x 32.87 mm (56.70 mm) Type 3.6
Pixel Size	3.45 µm x 3.45 µm
Interface	10GigE (RJ-45), GigE Vision 2.0
Max Frame Rate	8.2 fps at full resolution
Exposure Time	163 µs - 60 s
Pixel Data Format	Mono 8 bit, Mono 12 bit packed
Electronic Shutter	Global Shutter
Spectral Range	400 nm - 1000 nm, IR-Cut 680 nm filter
Trigger Synchronization	Internal, Software, External
Dynamic Range / SNR	74.4 dB / 41.5 dB
Gain Control	0.0 dB - 36.0 dB, auto or manual
Image Control	LUT, mirror image, DPC, shading correction, FFC
Digital I/O	2 x 24 V input, 4 x open drain output, 1 x opto-isolated input, RS232 in / out
Dimension / Weight	83 mm x 80 mm x 80 mm, 580 g - IP30
Temperature	Operating (housing) -10° C to 60° C
Lens Mount	M72 x 0.75 mm
Power	External 10 - 25 VDC; PoE+ (option -P) Typ 18.0 W

Mechanical Dimensions

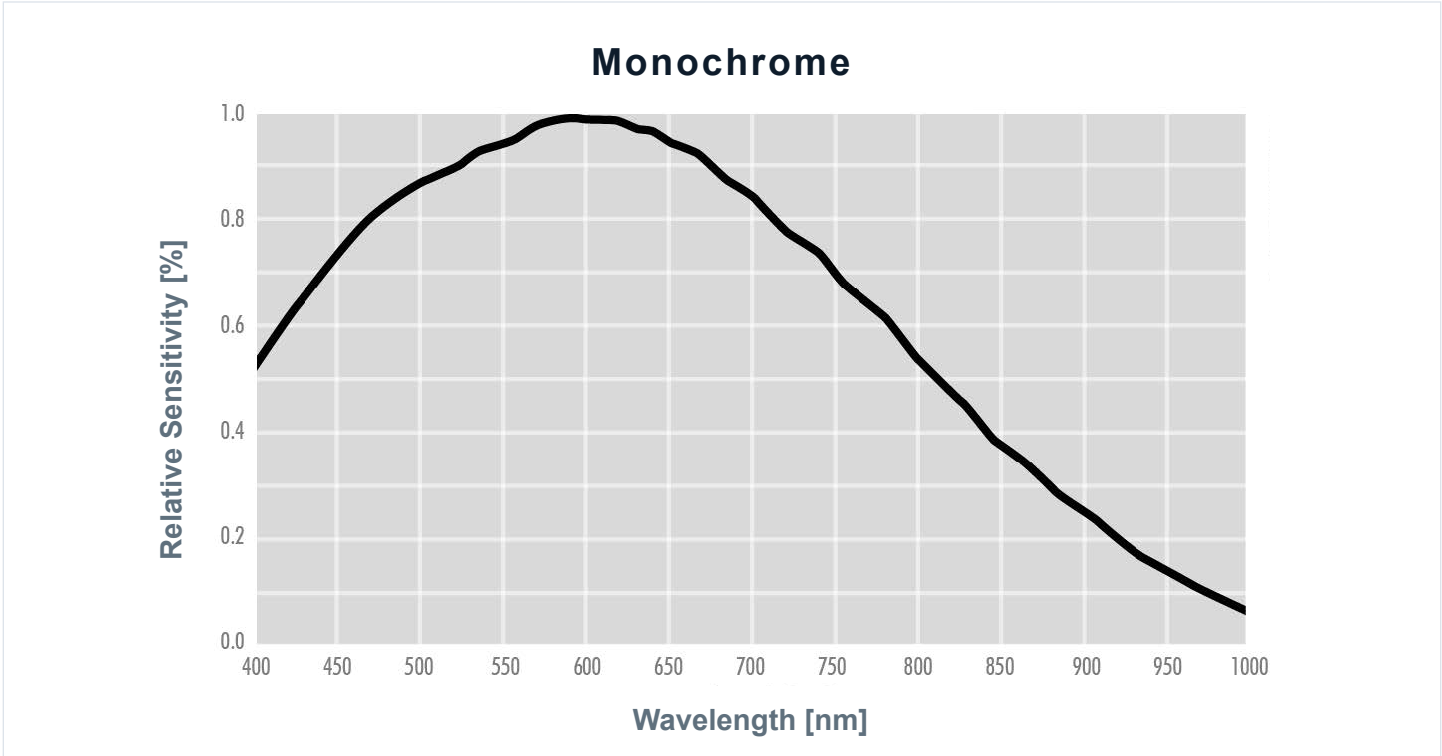
Front, right side, back and cross section views · 4 × M4 – 6H mounting threads on front, top and both sides

Unit: mm



Housing 83 × 80 × 80 mm. Optical distance 19.55 mm. Lens mount M72 × 0.75 mm. Weight 580 g. IP30.

Spectral Response



* Typical values for the sensor without lens or illumination; actual system response depends on optics, filters and light source.

Connector Specification

Power / Digital I/O

- 2 × 24 V input, 4 × open drain output
- 1 × opto-isolated input, RS232 in / out
- 10 – 25 VDC, typ. 18.0 W
- (12-pin Hirose HR10A-10P-12S)

Data Transfer / Communications

- 10GigE, RJ-45
- PoE+ powered on the -P option
- (Connectors on camera rear)

I/O Pin Assignment — 12-pin Hirose HR10A-10P-12S

Hirose 12 Pin			
	01	VIN-	(GND)
	02	VIN+	(10V to 25V DC)
	03	IN4	(RXD RS232)
	04	OUT4	(TXD RS232)
	05	IN1	(0-24V)
	06	IN2	(0-24V)
	07	OUT1	(open drain)
	08	OUT2	(open drain)
	09	IN3+	(opto In +)
	10	IN3-	(opto In -)
	11	OUT3	(open drain)
	12	OUT0	(open drain)