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GMSL2 Sony IMX462 camera with IP protection

Product brief

Version 1.0

Revision	Description	Release date
1.0	Initial document	23.July.2024

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1 General product description

The IP-protected GMSL2 Camera based on Sony IMX462 is a compact camera with low light video capturing capabilities.

2 Technical specification

2.1 Image sensor

The image sensor is Sony IMX462.

Pixel size: 2.9 µm (H) × 2.9 µm (V)

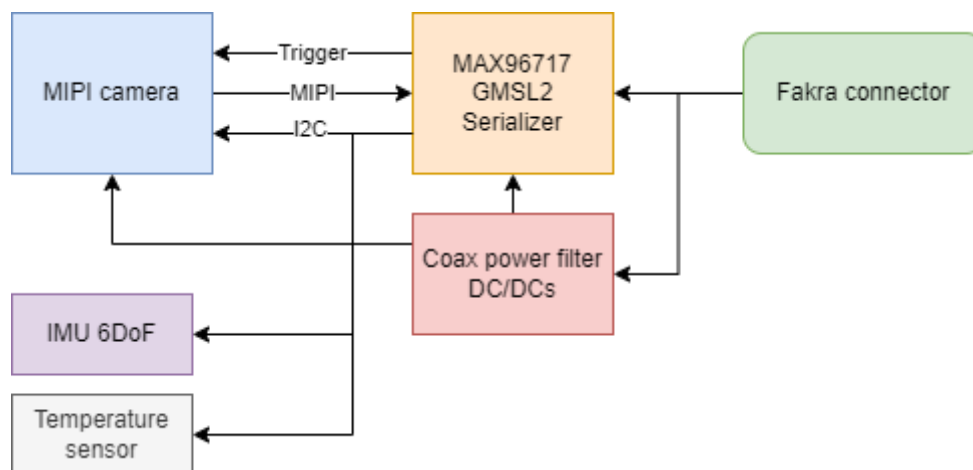Number of active pixels 1937 (H) × 1097 (V) approx. 2.12 M pixels

Number of recommended recording pixels 1920 (H) × 1080 (V) approx. 2.07 M pixels.

CDS / PGA function: 0 dB to 29.4 dB: Analog Gain 29.4 dB (step pitch 0.3 dB), 29.7 dB to 71.4 dB: Analog Gain 29.4 dB + Digital Gain 0.3 to 42 dB (step pitch 0.3 dB).

High dynamic range (HDR) function supported (Multiple exposure HDR/Digital overlap HDR).

2.2 GMSL2 board

GMSL2 solution based on the Analog Devices MAX96717G serializer.

Besides of GMSL2 serializer, the board has power converters, a TMP102 temperature sensor, IMU ICM-42688-P, an analog switch IC for muxing sensor trigger I/O, VSYNC sensor I/O.
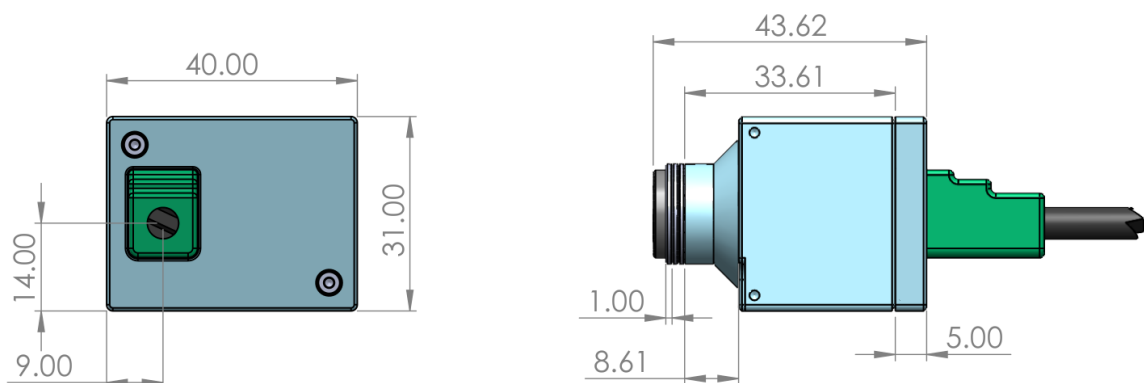
Signals connection table

Camera signal	MAX96717G IO	Description
CAM_TRIG	MFP8	Sensor tigger input
CAM_FLASH	MFP5	Sensor VSYNC/Flash output
MUX_SEL	MFP0	Analog multiplexer A0 select pin
MUX_EN	MFP7	Analog multiplexer global enables signal
IMU_INT1	MFP6	ICM-42688-P, INT1
IMU_INT2	MFP4	ICM-42688-P, INT2

2.3 Lens mounting path

M12 lens used (S-mount lens) with an additional component – IR filter. The camera has M12 with thread.

2.4 Camera dimension

The camera has the following dimensions:

2.5 Environmental requirements

No cooling requirements.

Operating temperature range: -40..+85 ºC;

Power (over same coax cable with Fakra connector): 12 VDC @ 200mA;

Waterproof: IP 67 / IP 69K.