

3MP GMSL2 CAMERA



GENERAL DESCRIPTION

The camera is equipped with SONY CMOS image sensor ISX031 and Maxim GMSL2 serializer MAX96717F. It has an automotive-grade sensor with a well-tuned Image Signal Processor (ISP) that produces exceptional image quality, which comes with an IP67-rated enclosure – is supplied with an AA lens that is focused and glued in our factory.



KEY PARAMETERS

Sensor	SONY 2.95MP ISX031 RGG B
ISP	Built-in
Image Size	1/2.42 inch CMOS
Output Pixels	1920H*1536V
Pixel Size	3.0um*3.0um
Frame Rate	1920*1536@30fps
HDR Support	Yes
LFM	Yes
Output data	YUV422@8bit
Serializer	MAXIM MAX96717F
Camera Interface	GMSL2
Power Supply	9~16V POC
Current	<200mA@12VDC
Connector	Amphenol Fakra (Z Code)
Operating temp. range	-40~+85°C
Dimensions	W: 25mm, L:25mm, H:18.6mm
Weight	<50g



Features

- Output format: Uncompressed YUV422 format
- AA IP67 compliant lens focused and glued at our factory
- External trigger support
- Multi-Camera synchronization Support
- Support different focal length lens



Application

- Automotive
- ADAS + Viewing Fusion
- High Dynamic Range Imaging
- Autonomous Driving
- Robots





HARDWARE SETTING

Serializer	
Model	Max96717F
I2C Address	0x80(8bit address)
Rate	GMSL2 (3G bps)

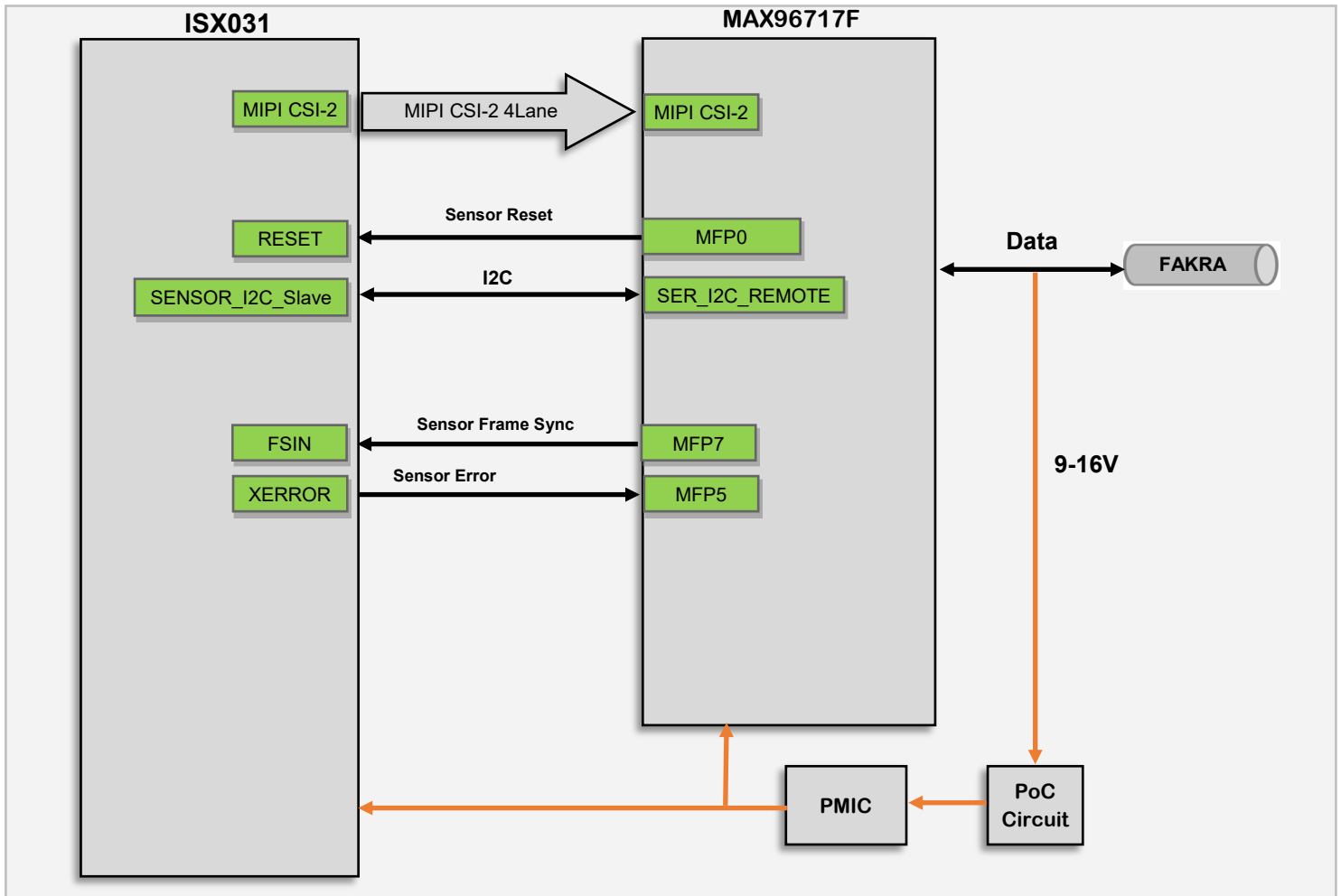
Sensor	
Model	ISX031
I2C Address	0x34 (8bit address)
Frame Sync	Controlled by Max96717F MFP7
Reset	Controlled by Max96717F MFP0

Interface Circuit Diagram





BLOCK DIAGRAM



Block Diagram

- ※ The camera module has a built-in ISP that outputs YUV data. The backend does not need to configure an image sensor, but only needs to configure SerDes;
- ※ For SerDes setting code, please contact Sales@sensing-wolrd.com ;
- ※ The camera support store camera internal parameters, if you need to obtain the internal parameters reading method, please note before placing the order



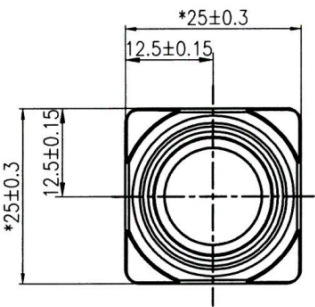


MODEL AND LENS

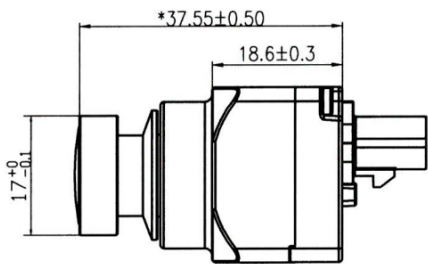
Model	HFOV	VFOV	F.No	EFL	Max Optical Distortion	Water-proof	Lens Mount
SG3S-ISX031C-GMSL2F-H30X	30°	24°	1.6	10.96mm	-2.5%	IP67	M12
SG3S-ISX031C-GMSL2F-H60FA	60°	46°	1.6	5.8mm	-21%	IP67	AA
SG3S-ISX031C-GMSL2F-H100F1A	100°	78°	1.6	3.55mm	-58%	IP67	AA
SG3S-ISX031C-GMSL2F-H120UA	118°	92°	2	3mm	-92%	IP67	AA
SG3S-ISX031C-GMSL2F-H190XA	196°	154°	2.0	1.51mm	-155%	IP67	AA



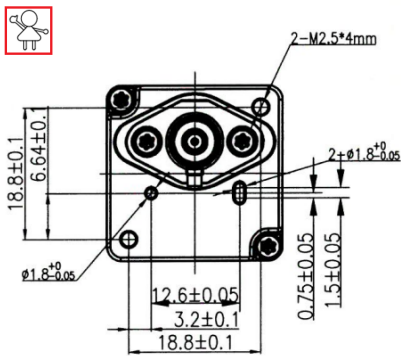
DIMENSIONS



Front View



Side View



Rear View

Note:



This icon indicates the imaging direction is positive.

△ The height of this module varies when matching different lenses. Please refer to 3D digital analog size for details.

Dimension

