

1MP GMSL CAMERA

 GENERAL DESCRIPTION

The camera is equipped with OMNIVISION CMOS image sensor OX01F10 and Maxim GMSL. 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.



 KEY PARAMETERS

Sensor	OMNIVISION 1.3MP OX01F10 RGGB
ISP	Built-in
Image Size	1/3.55 inch CMOS
Output Pixels	1280H*960V
Pixel Size	3.0um*3.0um
Frame Rate	1280*960@30fps
Output data	YUV422@8bit
Serializer	MAXIM MAX96701
Camera Interface	GMSL
Power Supply	9~16V
Current	<150mA@12V
Connector	Amphenol Fakra (Z Code)
Operating temp. range	-40~+85°C
Dimensions	W: 25mm, L:25mm, H:13.9mm
Weight	<50g



Features

- Output format: Uncompressed YUV422 format
- S-mount IP67 compliant lens focused and glued at our factory
- Support external triggering
- Multi-Camera synchronization Support
- FCC , CE and RoHS



Application

- Automotive
- ADAS + Viewing Fusion
- Autonomous Driving
- Robots





HARDWARE SETTING

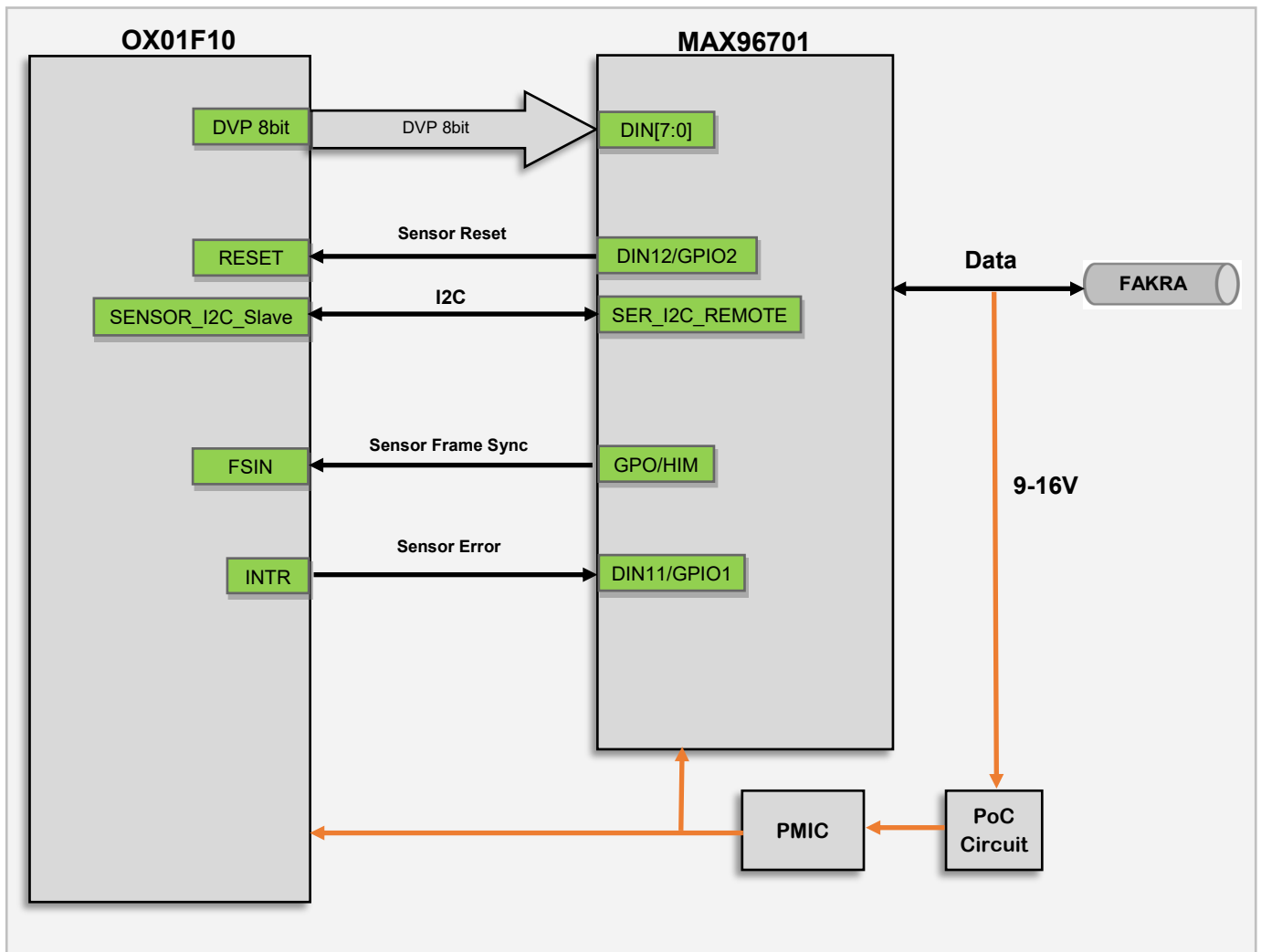
Serializer	
Model	Max96701
I2C Address	0x80(8bit address)

Sensor	
Model	OX01F10
I2C Address	0x6c (8bit address)
Frame Sync	Controlled by Max96701 GPO/HIM
Reset	Controlled by Max96701 DIN11/GPIO2





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-world.com;



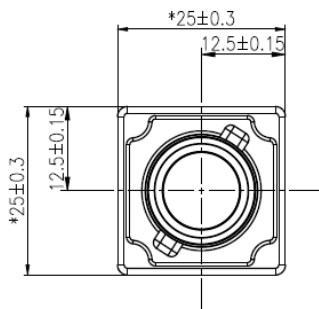


MODEL AND LENS

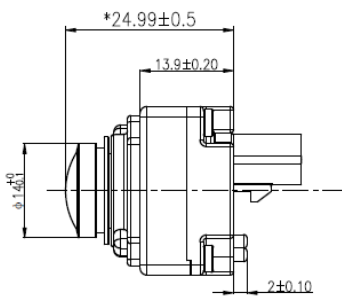
Model	HFOV	VFOV	F.No	EFL	Max Optical Distortion	Waterproof	Specs
SG1S-OX01F10C-G1G-H190TA	196°	152°	2.0	0.95mm	-100%	IP67	AA



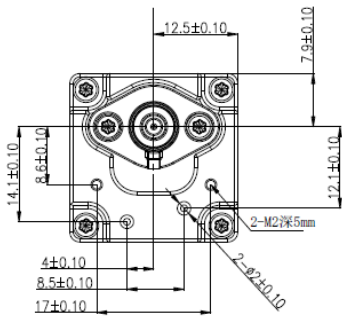
DIMENSIONS



Front View



Side View



Rear View

Note:



This icon indicates the imaging direction is positive.

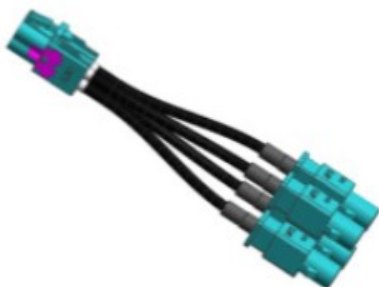




ACCESSORIES

◇ Coaxial Cable

Product Name	Order PN#	Specification
Mini-fakra Coaxial Cable 4-in-1 (TE)	T4JC-PC-ZZZZ-0500A	Mini-fakra, 4 in 1, 0.5m, Male to Female
Mini-fakra Coaxial Cable 4-in-1 (TE)	T4JC-JC-ZZZZ-0500A	Mini-fakra, 4 in 1, 0.5m, Female to Female
Mini-fakra Coaxial Cable 4-in-1(Rosenberg)	R4JC-JC-ZZZZ-0500L	Mini-fakra, 4 in 1, 0.5m, Female to Female
Mini-fakra Coaxial Cable 4-in-1(Rosenberg)	R4JC-PS-ZZZZ-0500L	Mini-fakra, 4 in 1, 0.5m, Male to Female
Camera coaxial Cable	SG-JSZPSZ2000L	2M, Male to Female, IP67
Camera coaxial Cable	SG-JSZJSZ2000L	2M, Female to Female, IP67
Camera coaxial Cable	SG-JSZPSZ3000L	3M, Male to Female, IP67
Camera coaxial Cable	SG-JSZJSZ3000L	3M, Female to Female, IP67
Camera coaxial Cable	SG-JSZPSZ5000L	5M, Male to Female, IP67
Camera coaxial Cable	SG-JSZJSZ5000L	5M, Female to Female, IP67
Camera coaxial Cable	SG-JSZJSZ7000L	7M, Female to Female, IP67
Camera coaxial Cable	SG-JSZJSZ8000L	8M, Female to Female, IP67
Camera coaxial Cable	SG-JSZPSZL100L	10M, Male to Female, IP67
Camera coaxial Cable	SG-JSZJSZL100L	10M, Female to Female, IP67
Camera coaxial Cable	SG-JSZJSZL120L	12M, Female to Female, IP67
Camera coaxial Cable	SG-JSZJSZL160L	16M, Female to Female, IP67
Camera coaxial Cable	SG-JSZJSZL200L	20M, Female to Female, IP67





Revision History

Version	Description	Release date
Rev1	First Release	Jul.2024

