

8MP GMSL3 CAMERA

GENERAL DESCRIPTION

The camera is equipped with SONY CMOS image sensor IMX728 and Maxim GMSL3 (Max96793) . It has an automotive-grade sensor without ISP, 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 8.39MP IMX728 RGGB
ISP	/
Image Size	1/1.72 inch CMOS
Output Pixels	3840H*2160V
Pixel Size	2.1um*2.1um
Frame Rate	Max 40fps
HDR Support	Yes
LFM	Yes
Output data	MIPI / RAW 12
Serializer	MAXIM MAX96793
Camera Interface	GMSL3
Power Supply	9~16V POC
Current	<400mA@12VDC
Connector	Amphenol (Fakra Z Code)
Operating temp. range	-40~+85°C
Dimensions	W: 30mm, L:30mm, H:22.57mm
Weight	<50g



Features

- Output format: RAW data format
- S-mount IP67 compliant lens focused and glued at our factory
- 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	Max96793
I2C Address	0x80(8bit address)
Rate	GMSL3 (12G bps)

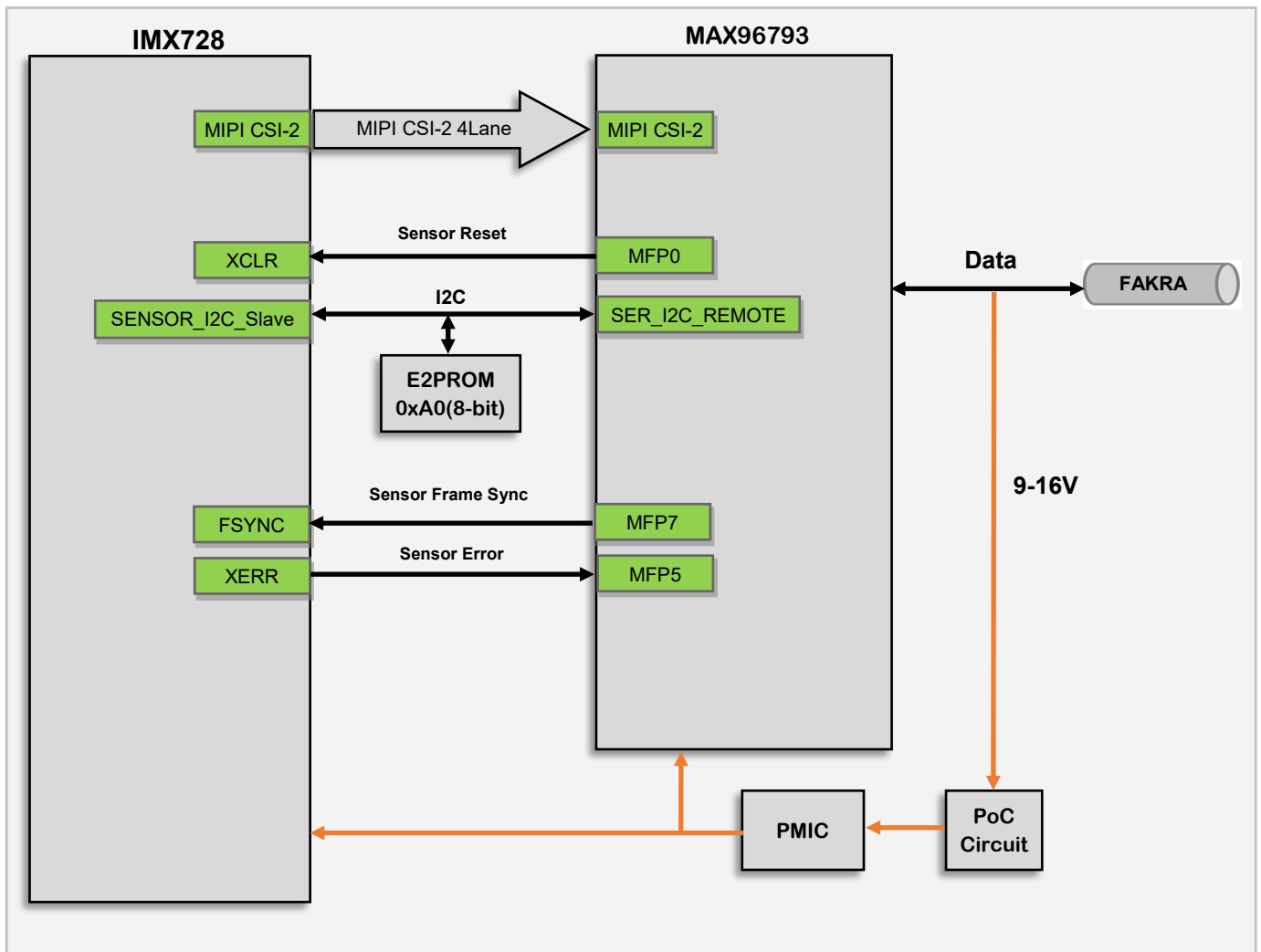
Sensor	
Model	IMX728
I2C Address	0x34 (8bit address)
Frame Sync	Controlled by MAX96793 MFP7
Reset	Controlled by MAX96793MFP0
Error	MAX96793 MFP5

Interface Circuit Diagram





BLOCK DIAGRAM

**Block Diagram**

- ※ The camera module does not have an ISP outputs RAW data. The backend need to configure an image sensor and 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



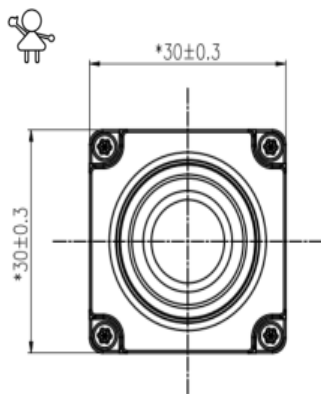


MODEL AND LENS

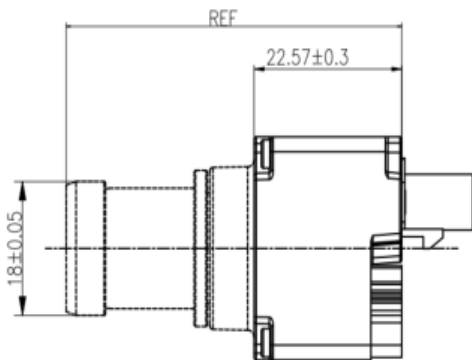
Model	HFOV	VFOV	F.No	EFL	Max Optical Distortion	Water-proof	Lens Mount
SG8-IMX728C-G3A-H30YA	30°	17°	1.6	15.3mm	-2.7%	IP67	M16
SG8-IMX728C-G3A-H120YA	120°	66°	1.6	4.01mm	-57.9%	IP67	M16



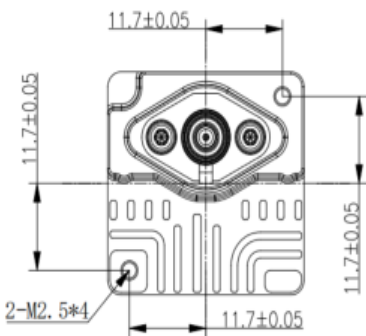
DIMENSIONS



Front View



Side View



Rear View

Note:

△ There are two different heights of this size to match different lenses. Please refer to 3D digital analog size for details.

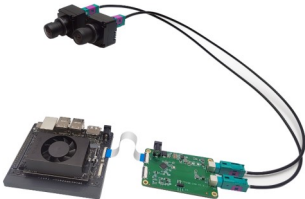
△  This icon indicates the imaging direction is positive.

Dimension





PLATFORMS SUPPORT

Platforms	Product Link
NVIDIA Jetson platforms 	Provide development driver package https://www.sensing-world.com/jetson_camera_ecosystem/ 

※ For development support, please contact Sales@sensing-wolrd.com ;





ACCESSORIES

◇ Coaxial Cable

Product Name	Order PN#	Specification
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 (TE)	T4JC-PC-ZZZZ-0500A	Mini-fakra, 4 in 1, 0.5m, Male to Female
Mini-fakra Coaxial Cable 4-in-1(Rosenberg)	R4JC-PC-ZZZZ-0500L	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
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	Mar.2024

