

2MP FPDLink CAMERA

GENERAL DESCRIPTION

The camera is equipped with OmniVision CMOS image sensor OX03C10 and TI FPDLink III. It has an automotive-grade , which comes with an IP67-rated enclosure – is supplied with an AA lens that is focused and glued in our factory.

KEY PARAMETERS

Sensor	OmniVision OX03C10 RGGB
ISP	/
Image Size	1/2.6 inch CMOS
Output Pixels	1920H*1080V
Pixel Size	3um*3um
Frame Rate	MAX 60fps
HDR Support	Yes
LFM	Yes
Output data	MIPI / RAW 12
Serializer	TI DS90UB953
Camera Interface	FPDLink III
Power Supply	9~16V POC
Current	<250mA@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: RAW format
- S-mount IP67 compliant lens focused and glued at our factory
- Multi-Camera synchronization Support
- Support different focal length lens
- FCC , CE and RoHS



Application

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



HARDWARE SETTING

Serializer	
Model	DS90UB953
I2C Address	0x30 (8bit address)

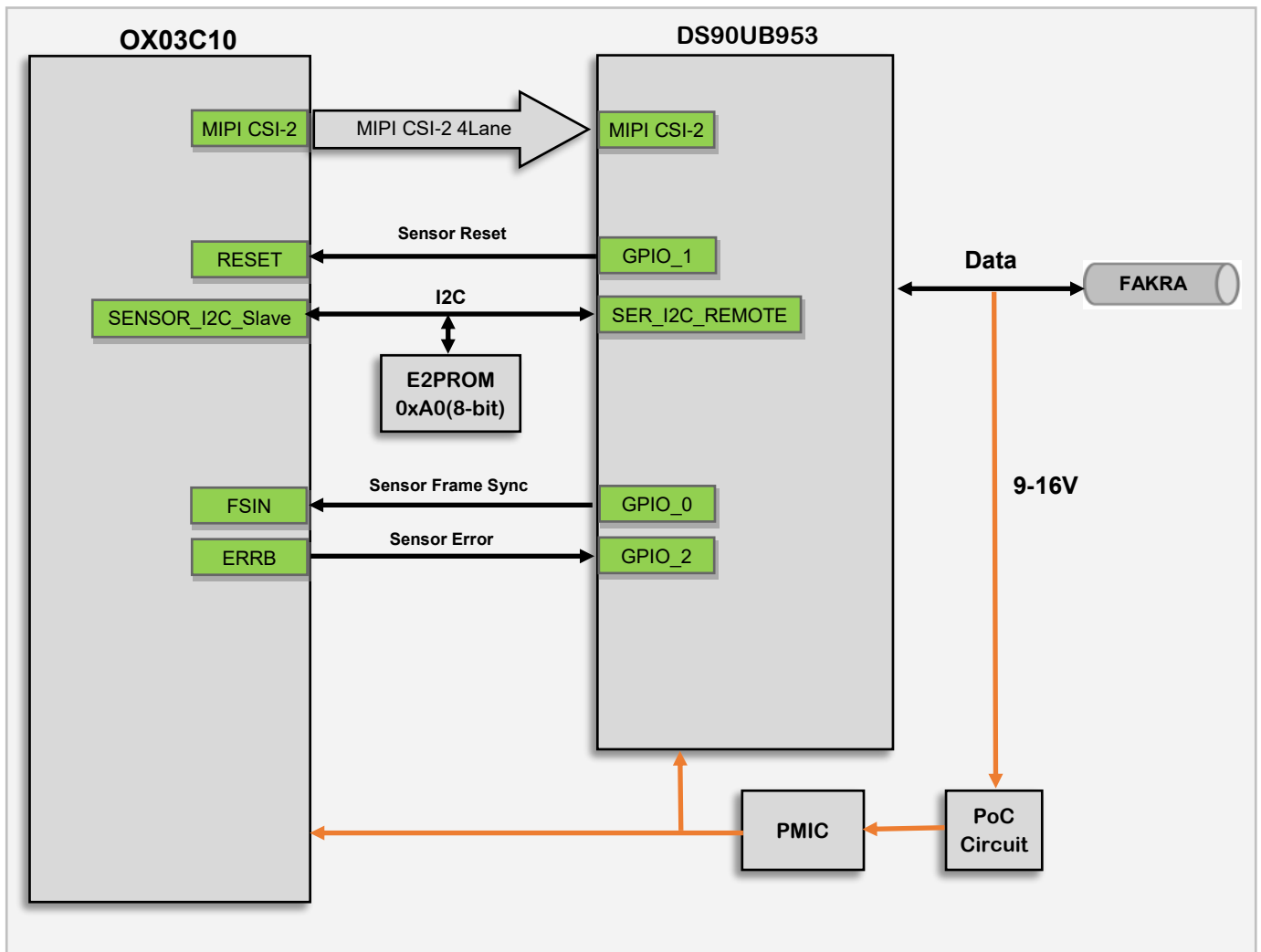
Sensor	
Model	OX03C
I2C Address	0x6c (8bit address)
Reset	Controlled by DS90UB953 GPIO_ 1
Frame Sync	Controlled by DS90UB953 GPIO_ 0
Error	Controlled by DS90UB953 GPIO_ 2

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





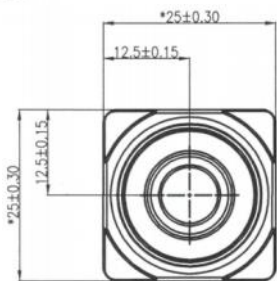
MODEL AND LENS

Model	HFOV	VFOV	F.No	EFL	Max Optical Distortion	Water-	Lens
SG2S-OX03CC-F3A-H60MA	59.7°	38°	1.8	5.84mm	-21.5%	IP67	AA
SG2S-OX03CC-F3A-H100MA	99°	66°	1.6	3.43mm	-43.9%	IP67	AA

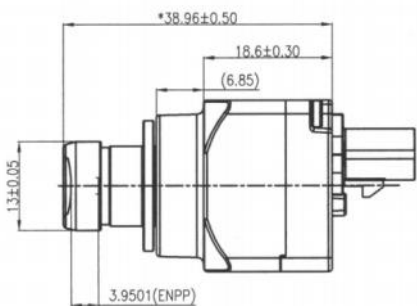


DIMENSIONS

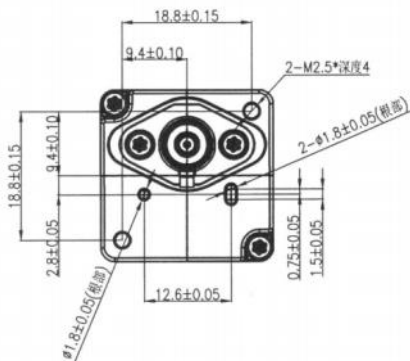
The direction of the head on the drawing is 180 ° opposite to the actual imaging, and the client register configuration software mirror and flip are required for imaging flipping



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

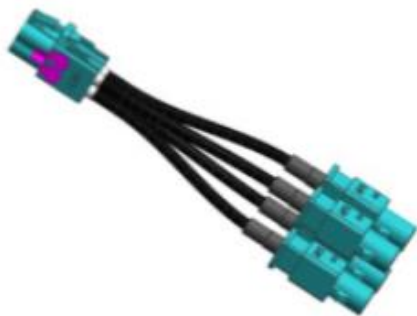




ACCESSORIES

◇ 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

