



# ALIX8B AUTOMOTIVE ADAS CAMERA MODULE

Product Specification

1/1.7 3840\*2160 Automotive ADAS Camera Module

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## ➤ General Description

The ALX8BA2 series camera module is 8Megapixel high-performance camera for automotive ADAS application. Using Omnivision's state-of-the-art OX08B40 automotive grade image sensor, with glass aspheric lenses of various viewing angles from 30° to 120°, this camera module used for the front view of autonomous driving from L2-L4. Integrated with ISP chip, the camera can capture image with high dynamic range(HDR) over 120dB, and produce clear image under low light condition.

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## ➤ Features

- High quality image with large pixel size;
- Low latency data transfer with GMSL2;
- High quality image with large pixel size;
- Over 120dB High dynamic range;
- Automotive grade high reliability performance, IP67 protection level;
- Provide camera intrinsic parameters from internal EEPROM (by customer needs);
- LFM-LED anti-flicker function;

## ➤ Applications

- Autonomous driving/ADAS front view application
- High dynamic scene applications

## ➤ Key Specifications

Type	Parameters	Annotation
Field of View	30°/60°/120°	
Photosensitive chip	OV OX08B40	
ISP chip	OAX4000	
Optical size	1/1.7 inch CMOS	
Pixel size	2.1μm	
Frame rate	20fps/30fps(typical value)	
Resolution	3840 (H) x 2160 (V)	
Exposure mode	Rolling Shutter	
Dynamic range	120-130dB	
Image format	YUV422-8bit	
Color Pattern	RGGB	
Serializer chip	MAXIM Max9295A / Max96717	
Output interface	GMSL2(LVDS)	
Working voltage	9V-12V	
Package type	CSP	
Camera interface	Coaxial	
Coupler	Amphenol (default Z Type Fakra)	
Operating temperature	-40°C ~ +85°C	
Storage temperature	-40°C ~ +105°C	

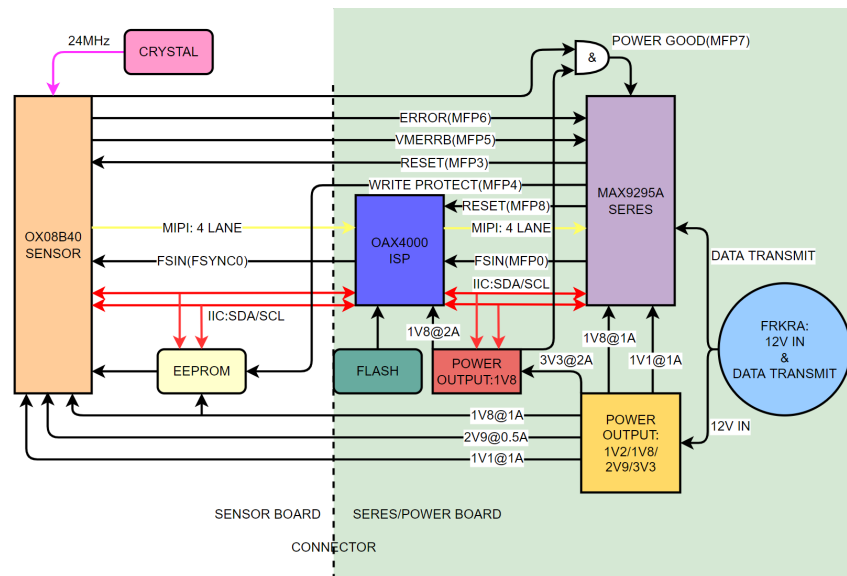
## ➤ Models and Lens

Model Number	HFOV	VFOV	EFL	F. no	Protection
ALI2803-OBH-SABA-IP67	30.0±2°	16.9±2°	15.4±5%	1.6±5%	IP67
ALI2803-OBE-SABA-IP67	30.0±2°	17.0±2°	15.3±5%	1.6±5%	IP67
ALI2806-OBH-SABA-IP67	60.0±2°	33.6±2°	7.75±5%	1.6±5%	IP67
ALI2812-OBH-SABA-IP67	123.2±3°	70.0±3°	3.69±5%	1.6±5%	IP67
ALI2812-OBE-SABA-IP54	120.0±3°	54.6±3°	5.1±5%	1.6±5%	IP54

### ➤ System Diagram

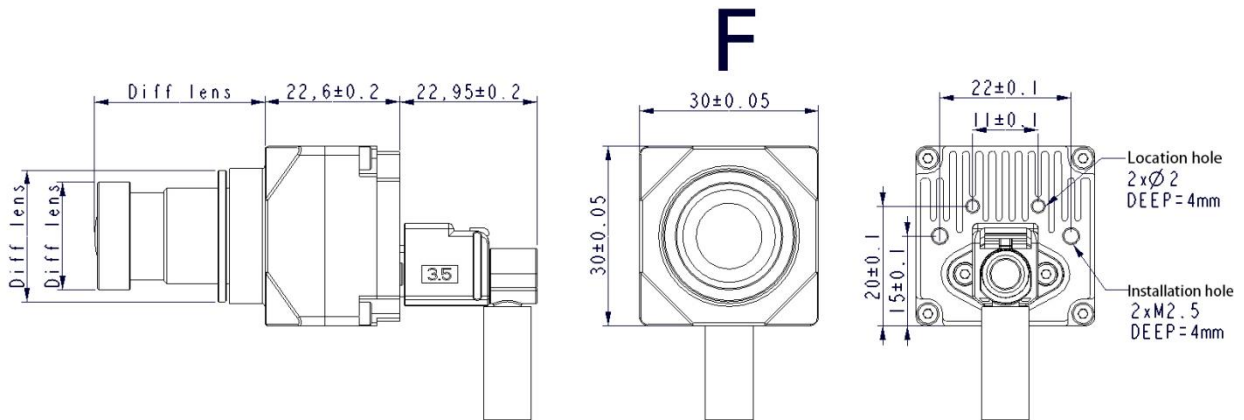
Type	Parameter	Annotation
Serializer	MAXIM Max9295A/Max96717	
IIC address	0xC0/0x80(8bit address)	
CMOS clock frequency	crystal oscillator	24MHz
GMSL rate	6Gbps	
CMOS Reset control pin	MFP3	Default external pull-up of 1.8V
ISP Reset control pin	MFP8	Default pull down 1K resistor to GND
IIC Pin	SDA use MFP9 SCL use MFP10	SDA: connect with ISP SSDA SCL: connect with ISP SSCL
CMOS Exposure synchronization signal FSIN	Given by ISP's FSYNCO	Control exposure timing through ISP chip

Type	Parameter	Annotation
ISP model	OAX4000	
IIC address	0x48(8bit address)	
Clock frequency	24MHz	
IIC pin	SDA use MSDA0 SCL use MSCL0	
Exposure synchronization signal	MFP0	Control the exposure timing of ISP chips



ALIX8B camera module diagram

## ➤ Dimensions



## ➤ Accessories

Wire harness name	Wire harness model	Wire harness specifications
Amphenol female to female cable	344-00006-10321	Waterproof $\Phi$ 2.8 coaxial shielded wire-RG174 L=2000MM
Amphenol male to female cable	344-00006-10321B	Waterproof $\Phi$ 2.8 coaxial shielded wire-RG174 L=2000MM

## ➤ Contact Us

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