

Datasheet

oToBrite Electronics, Inc



oToCAM234

1. General Description

The oToCAM234 is an automotive grade camera for the application of autonomous driving and CMS. It uses high sensitive CMOS sensor to perform good image quality for the detection purpose of the system product.

2. Product specification

No.	Item	Specification
1	Image sensor	CMOS (Sony IMX 290)
2	Number of pixels (default)	2M (1920 (H) × 1080 (V))(default setting)
3	View angle(H/V)	HFOV : 62° ; VFOV: 34°
4	Resolution(Center)	Center TV line \geq 600
5	Color filter array	RGGB
6	Output Interface	FPD-Link III with POC
7	Output Formats	MIPI-CSI2 with 8-bit YUV data
8	Lens structure	5G
9	Lens F No.	F2.0
10	Power source (POC)	DC6~12V
11	Startup time of power in	Within 3000ms
12	Frame rate (default)	30 fps (Depends on ISP code version)
13	Exposure Control	DOL2(Depends on ISP code version)
14	Serializer	TI DS90UB953-Q1
15	Camera Current Consumption	Below 250mA @6V
16	Operating Temperature	-40°C ~ +85°C
17	Storage temperature Range	-40°C ~ +95°C
18	Waterproof	IP69K/IP67
19	Dimension(mm)	44*28*27.2 mm (exclude Fakra connector)
20	Weight	34.5g

3. Outline Drawing

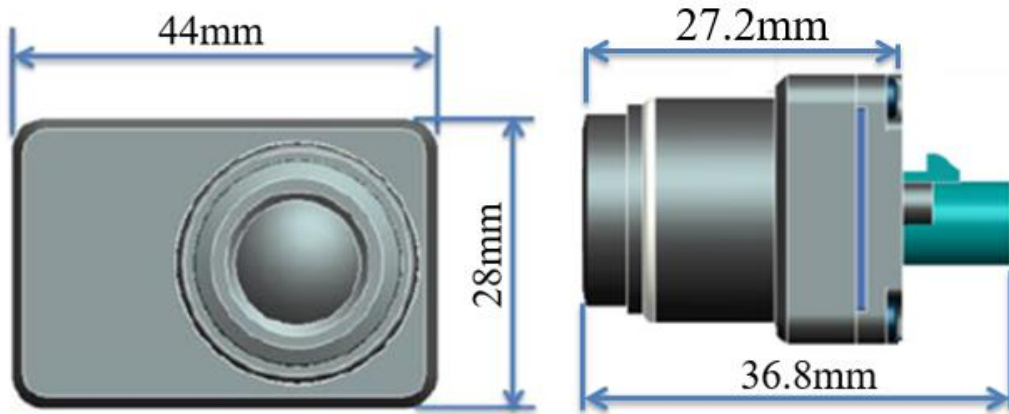


Figure 1. oToCAM234 Diagram (the bracket is optional and different for different car models)

4. Interface, Cables and Connectors (Male and Female)

4.1 Connectors of camera

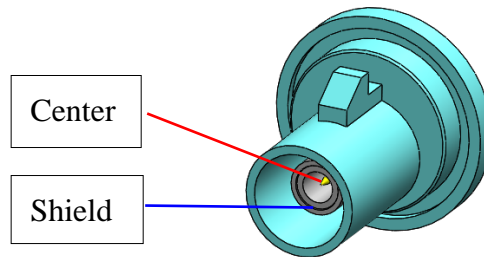


Figure 2. Amphenol FK1251ZW-034-TT5GP-50

4.2 LVDS cable (POC) with Fakra connector

Connector type: Amphenol 3FA1-NZSJ-C01E0

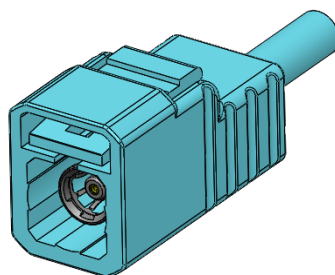


Figure 2.1 Amphenol 3FA1-NZSJ-C01W0

Pin definition:

Pin No.	Signal Name	Operation Voltage and Current
Center	DOUT	Min. 0.52V, Max. 0.67V
	PWR	Typ. 200mA @6V / 25°C
Shield	Shield GND	

5. Applications

5.1. Deserializer (DS90UB954) Settings

1. Operate Mode Setting: CSI-2 Synchronous Back Channel Mode and BISTEN Disabled.
 2. Config Forwarding Register and Enable CSI output .
- (The Config Example will be provided under NDA and/or samples purchased).

5.2. Serializer (DS90UB953) Settings

1. HW Initial Default Mode: Synchronous Mode.
2. I2C ID:0x30(8b).
3. No additional register settings.

6. System Configuration (TBD)

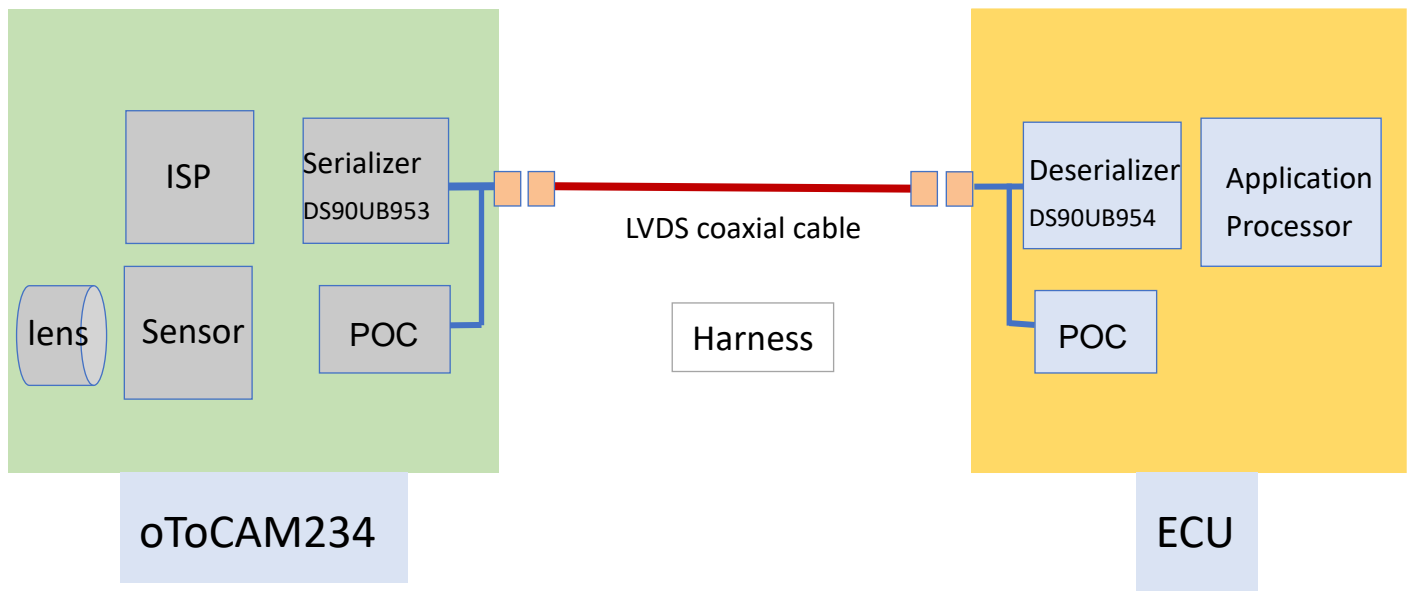


Figure 3. System Configuration