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Datasheet

oToBrite Electronics, Inc

oToCAM234-S114T

Revision	Description	Release Date
1.0	First Release	Aug. 26. 2020

1. General Description

The oToCAM234-S114T 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	Optical Format	1/2.8"
3	Pixel Size	2.9μm (H) × 2.9μm (V)
4	Camera Number of pixels	2M (1920 (H) × 1080 (V))
5	View angle (H/V)	HFOV：114.6° ； VFOV: 62°
6	Resolution (Center)	TV line ≧ 600
7	Color filter array	RGGB
8	Output Interface	FPD-Link III with POC
9	Output Formats	MIPI-CSI2 with 8-bit YUV data
10	Lens structure	2G3P
11	Lens F No.	F2.1
12	Power source (POC)	DC6~12V
13	Startup time of power in	Within 3000ms
14	Frame rate	60 fps (By ISP code version)
15	Exposure Control	DOL2 (By ISP code version)
16	Serializer	TI DS90UB953-Q1
17	Camera Current Consumption	≦ 350mA @6V
18	Operating Temperature	-40℃ ~ +85℃
19	Storage temperature Range	-40℃ ~ +95℃
20	Waterproof	IP69K/IP67
21	Dimension(mm)	44*28*27.2 mm (exclude Fakra connector)
22	Weight	32g

3. Outline Drawing :

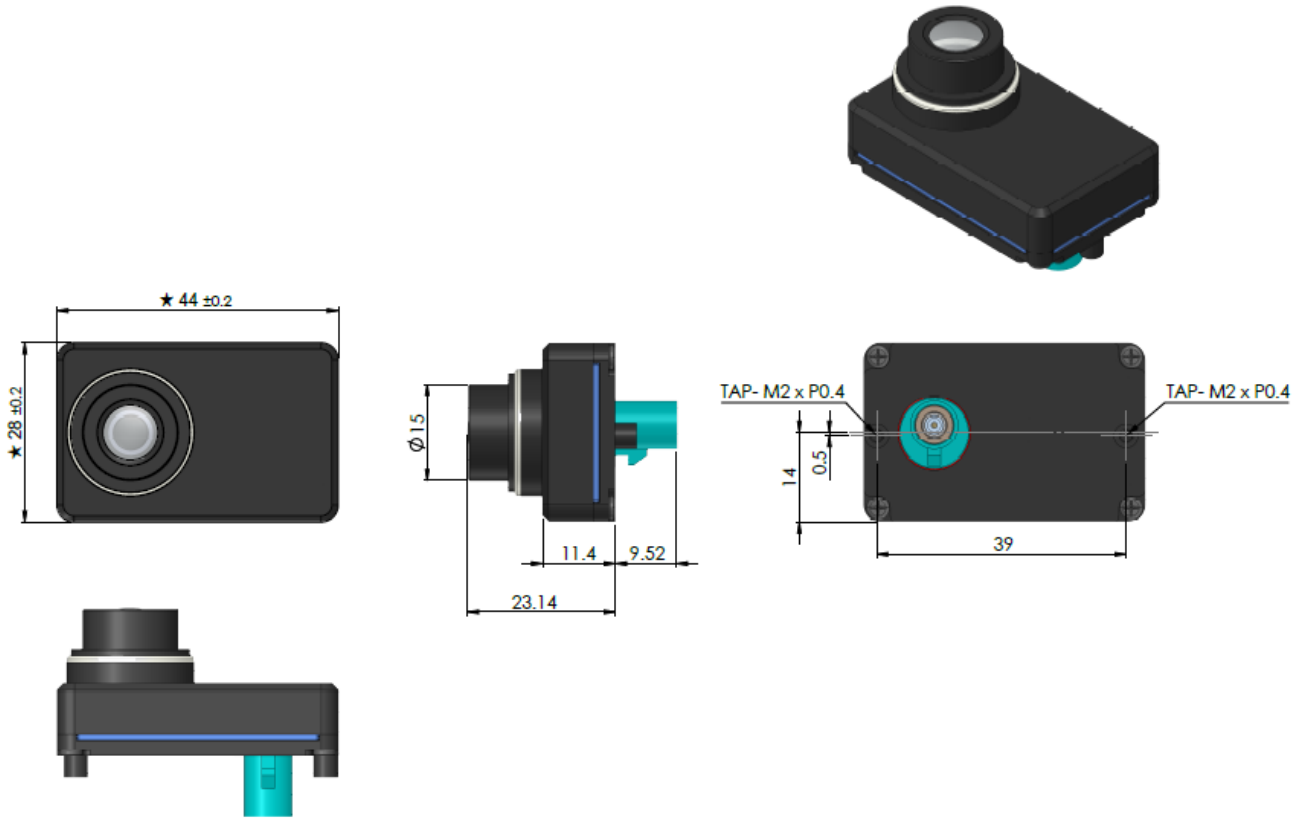


Figure 1. oToCAM234-S114T Diagram (the bracket is optional and different for different car models)

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

4.1 Connector of camera

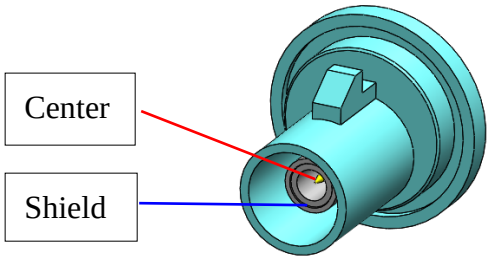


Figure 2. Amphenol FK1251ZW-034-TT5GP-50

4.2 Recommended counterpart FAKRA connector

Connector type: Amphenol 3FA1-NZSJ-C01E0

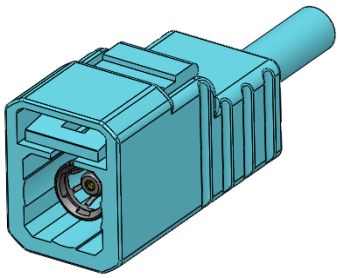


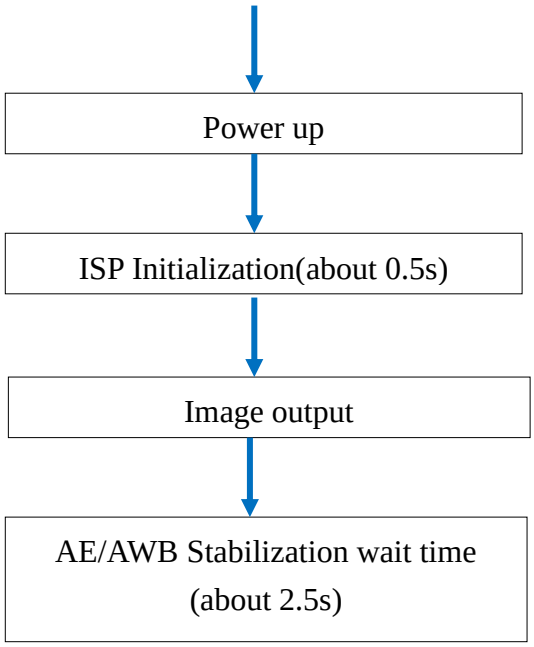
Figure 2.1 Amphenol 3FA1-NZSJ-C01E0

Pin definition:

Pin No.	Signal Name	Operation Voltage and Current
Center	DOUT	Min. 0.52V, Max. 0.67V
	PWR	Typ. 270mA @6V / 25℃
Shield	Shield GND	

5. Applications

5.1. Initialization



5.2. 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).

5.3. Serializer (DS90UB953) Settings

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

6. System Configuration (TBD)

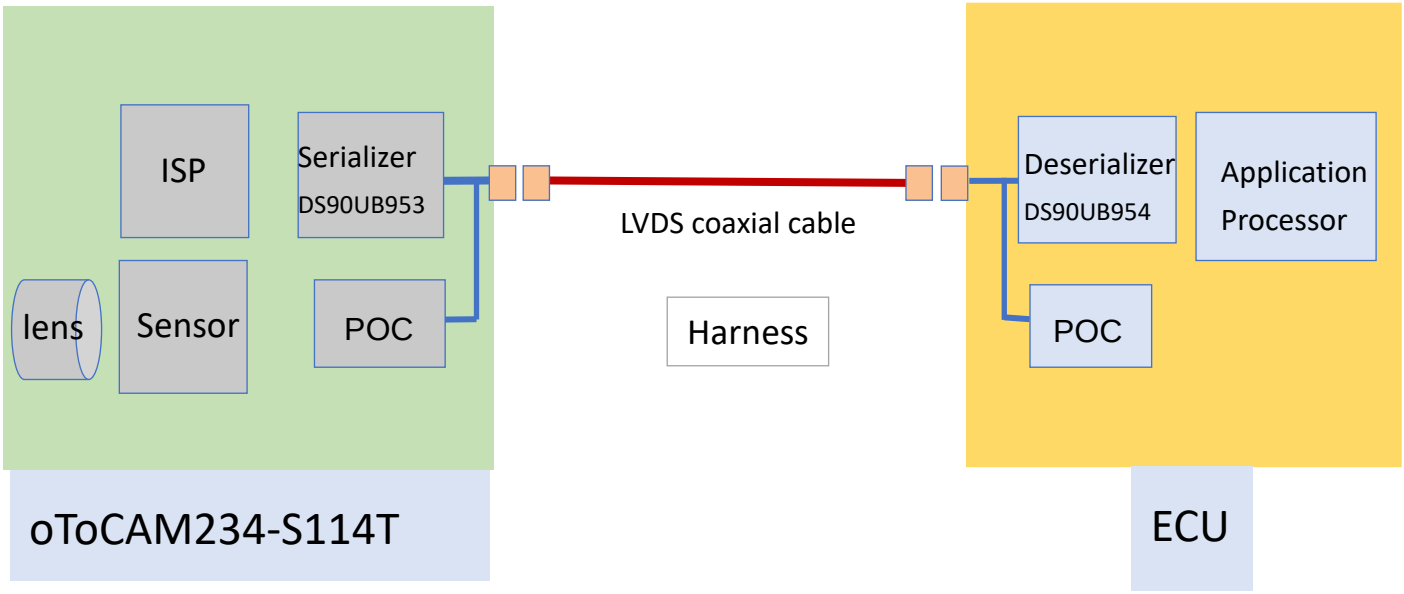


Figure 3. System Configuration