CAM-IMX390-H75-3M GMSL Camera Kit



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1. General Description

The CAM-IMX390-H75-3M GMSL Camera Kit 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 390)
2	Optical Format	1/2.7"
3	Pixel Size	3.0μm (H) × 3.0μm (V)
4	ISP chip	GW5200
5	Camera number of pixels	2M (1920 (H) × 1080 (V))
6	View angle(H)	73°
7	Resolution	TBD
8	Color filter array	RGGB
9	Output Interface	GMSL2 with POC
10	Output Formats	MIPI 4lane YUV422 8bits
11	S/N ratio	48.5 dB
12	Lens F No.	F2.8
13	Power source (POC)/Typical	DC 9~12V/9V
14	Startup time of power in	Within 2000ms (SerDes & ISP initialization)
15	Frame rate	30 fps (By setting)
16	Serializer	MAX9295
17	Camera Current Consumption	≦ 165mA @12V
18	Operating Temperature	-40℃ ~ +85℃
19	Storage temperature Range	-40℃ ~ +95℃
20	Waterproof	IP67/IP69K
21	Dimension	28*28*44.5mm (exclude Fakra connector)
22	Weight	48g
23	Product Lead Time	Sample: 1 month after getting firm order SOP: 1 months after getting firm order (assumption: customer has released 6 months rolling forecast)

3. Outline Drawing

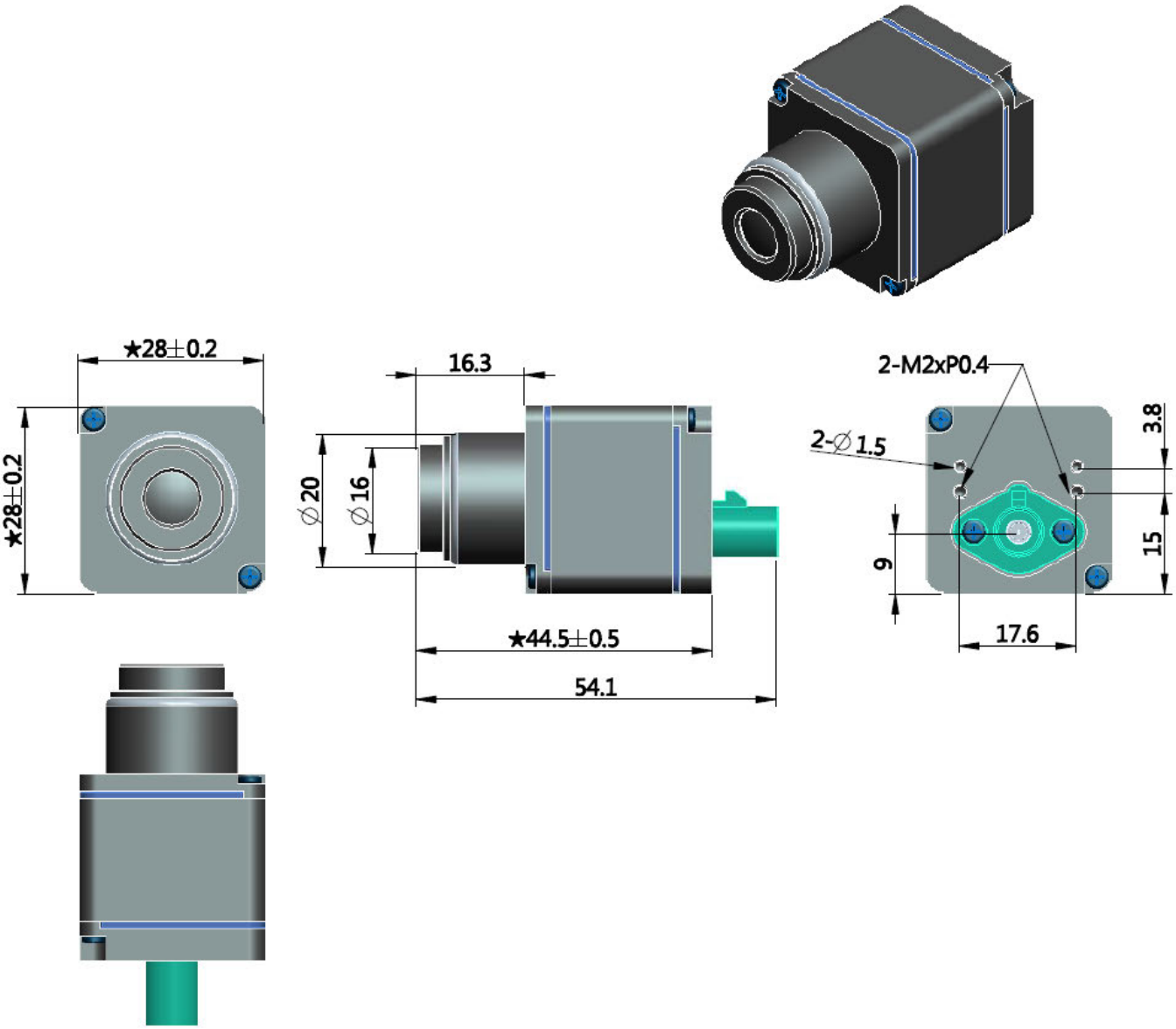


Figure 1. CAM-IMX390-H75-3M GMSL Camera Kit Diagram

4. Counterpart Connector

4.1 Connectors: Amphenol SMB1251Y3-002-TT5GP-50

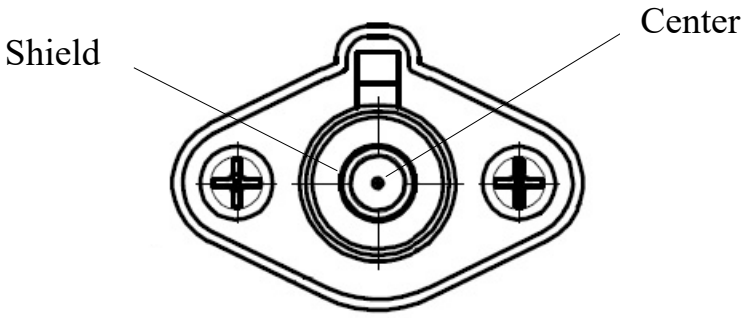


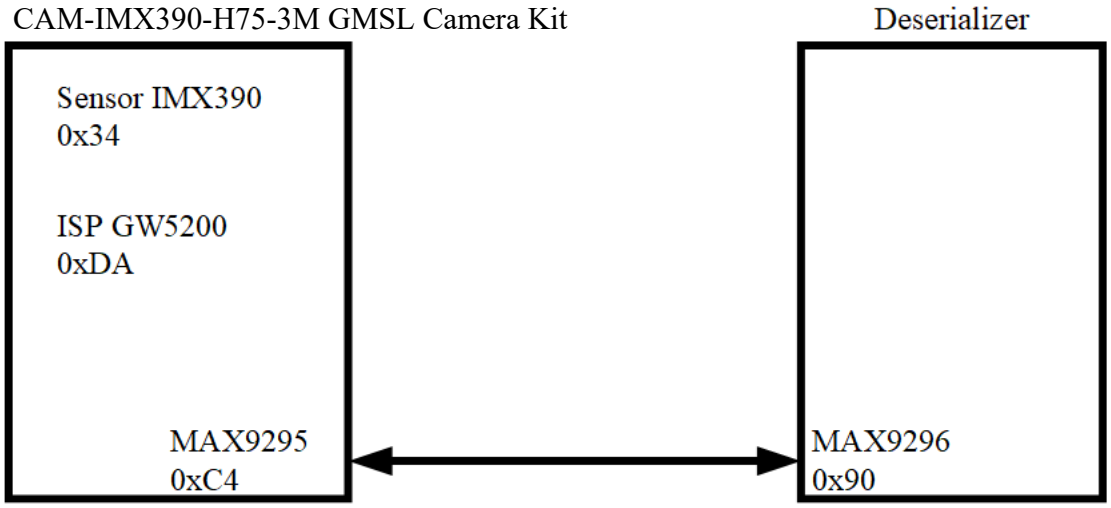
Figure 2. Amphenol SMB1251Y3-002-TT5GP-50

4.2.Pin definition:

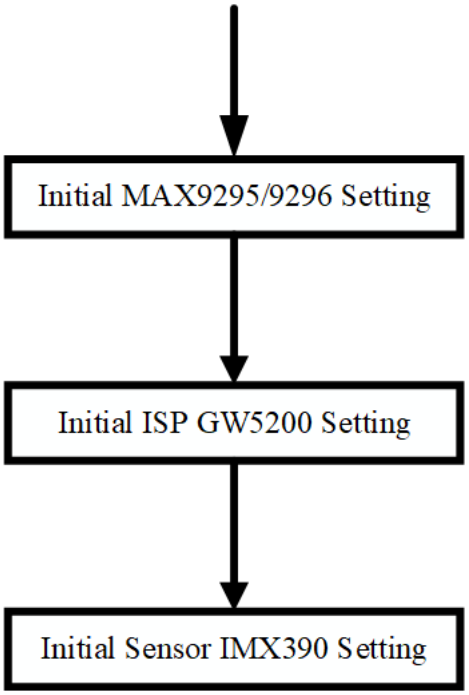
Pin No.	Signal Name	Operation Voltage and Current
Center	DOUT	Min. 0.3V, Max. 0.5V
	PWR	Typ. 215mA @9V / 25℃
Shield	Shield GND	

5. Applications

5.1. I2C ID Address



5.2. Initialization



5.3. Deserializer (MAX9296) Settings

(The registers file will be provided under NDA and/or samples purchased)

6. System Configuration (TBD)

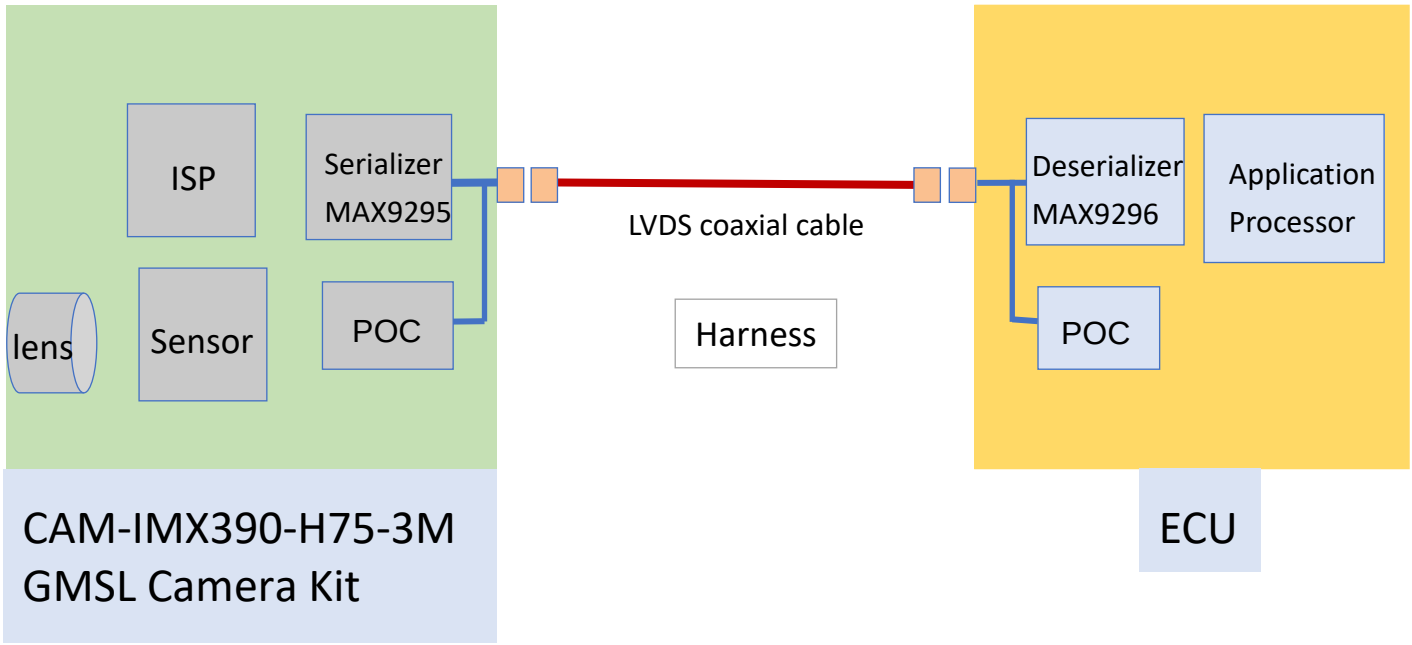


Figure 3. System Configuration

Maxim9296 must be used as de-serializer in ECU for connecting CAM-IMX390-H75-3M GMSL Camera Kit.

Revision	Description	Release Date
0.1	Draft Version	Mar.16. 2021