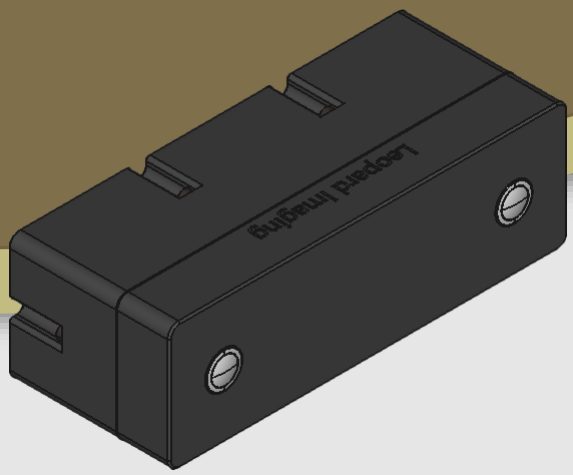
LI-OX05C1S-ST80-OAX4000-DUAL-GM2B-143H



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INTRODUCTION

The LI-OX05C1S-ST80-OAX4000-DUAL-GM2B-143H is a high-performance stereo vision camera module designed specifically for in-cabin sensing applications, including Driver Monitoring Systems (DMS) and Occupant Monitoring Systems (OMS). It integrates OmniVision two 5-megapixel global shutter image sensors OX05C1S, two dedicated automotive-grade ISPs OAX4000, and 2× ADI GMSL2 serializer MAX96717G to deliver reliable, high-speed image data over long cable distances.

SPECIFICATIONS

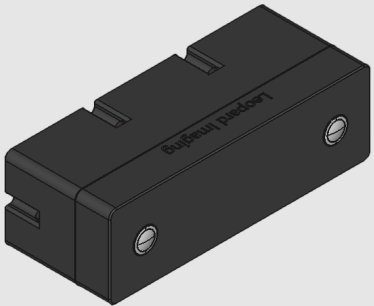
Maximum Frame Rate	23 fps @ 2592 × 1944
Data Format	YUV422 – 8 bit
Baseline	80 mm
Depth Range	TBD
Depth Accuracy	TBD
Sensor	OmniVision 1/2.525" CMOS 5MP image sensor OX05C1S
Optical Format	1/2.525"
Shutter Type	Global shutter
Pixel Size	2.2 × 2.2 µm
Color / Mono	RGB-IR
Resolution	2592 (H) × 1944 (V) (active pixels)
HDR (High Dynamic Range)	Supported
Serializer	ADI MAX96717G
ISP	Included
EEPROM Memory Size	128 Kbit
Connector	FAKRA Z TYPE
Operating Temp	TBD
Storage Temp	TBD
Power Supply Range	9 ~ 19 VDC
Power Consumption	TBD
Ingress Protection	TBD
Weight	TBD

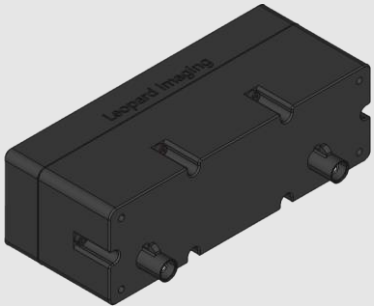
APPLICATIONS

- Autonomous Driving
- Driver Monitoring System
- Occupant Monitoring System
- In-Cabin Monitoring System

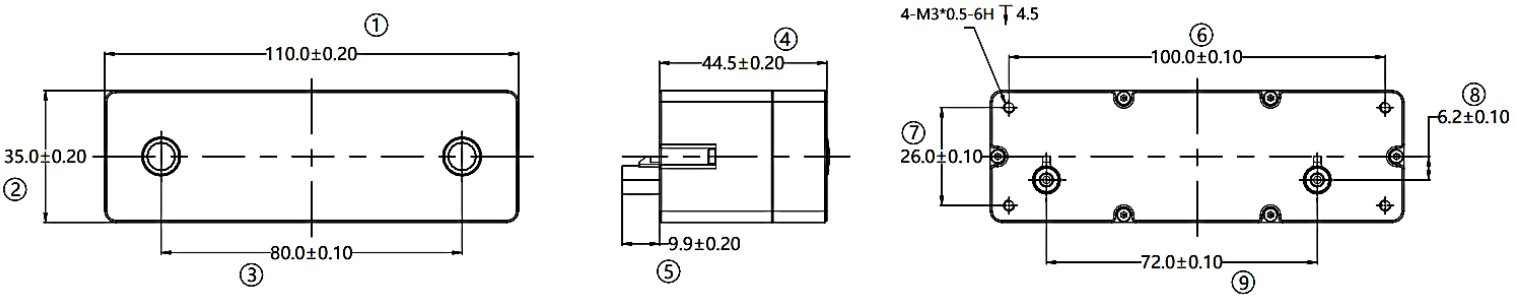
LENS SPECIFICATIONS

Focal Length	2.42 ± 5% mm
Aperture, F/#	2.2 ± 5%
Field of View (FOV)	143˚ horizontal
IR Filter	Visible + 940 nm dual bandpass filter
Lens Mount	M12 x P0.5





DIMENSIONS

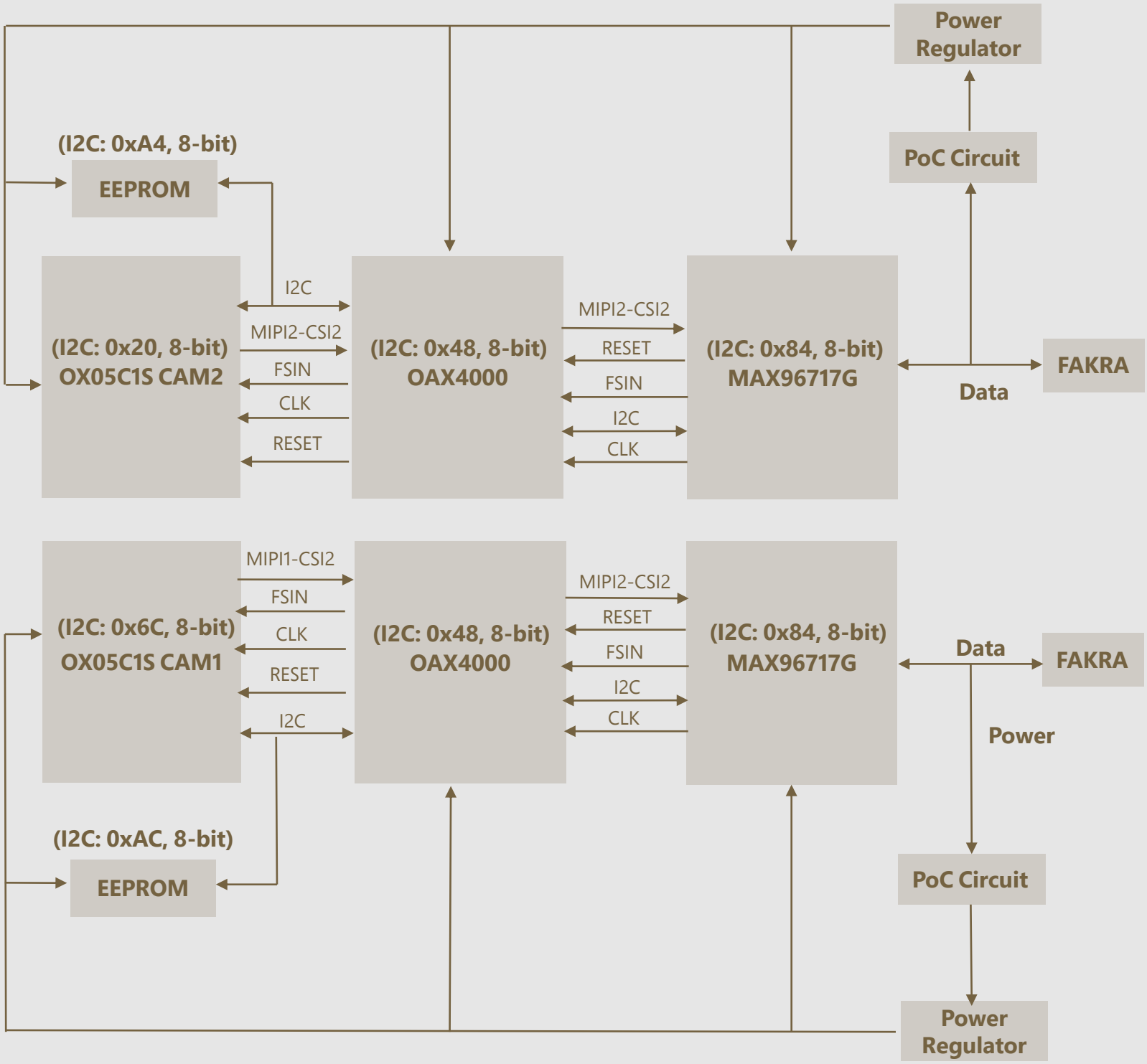


TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5<X≤3	±0.1	0.5<X≤3	±0.2	X≤10	±1°
3<X≤6	±0.1	3<X≤6	±0.5	10<X≤50	±30'
6<X≤30	±0.2	6<X≤30	±1	50<X≤120	±20'
30<X≤120	±0.3	X>30	±2	120<X≤400	±10'
120<X≤400	±0.5			X>400	±5'
400<X≤1000	±0.8				
X>1000	±1.2				

NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the tolerance table.
- Unit: mm

SYSTEM BLOCK DIAGRAM



REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	12 Nov 2026

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