



LEOPARD
IMAGING

LI-OX03H10-APHY-120H



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INTRODUCTION

The LI-OX03H10-APHY-120H is equipped with OmniVision's high-definition high dynamic range sensor OX03H10, which features TheiaCel™ technology for 140dB HDR and superior LED flicker mitigation. This module is paired with the Valens A-PHY serializer VA7031 for long-distance, high-reliability video transmission over coaxial cables. Its compact design and 120° horizontal field of view make it ideal for surround-view systems, e-mirrors, and autonomous driving applications.

SPECIFICATIONS

Maximum Frame Rate	60 fps @ 1920 x 1536 (12-bit)
Sensor	OmniVision high-definition high dynamic range sensor OX03H10
Optical Format	1/2.44"
Resolution	1920 (H) x 1536 (V) (active pixels)
Pixel Size	3.0 x 3.0 μm
Output Format	uncompressed 24-bit, 20/16/14/12-bit (PWL) combined HDR (4 captures)
Color / Mono	Color sensor
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
EEPROM Memory Size	64 Kbit
IP Rating	IP69K
Serializer	Valens serializer VA7031
Power Supply Range	8 ~ 17 VDC
Connector	FAKRA Z TYPE
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 35 g

● Automotive

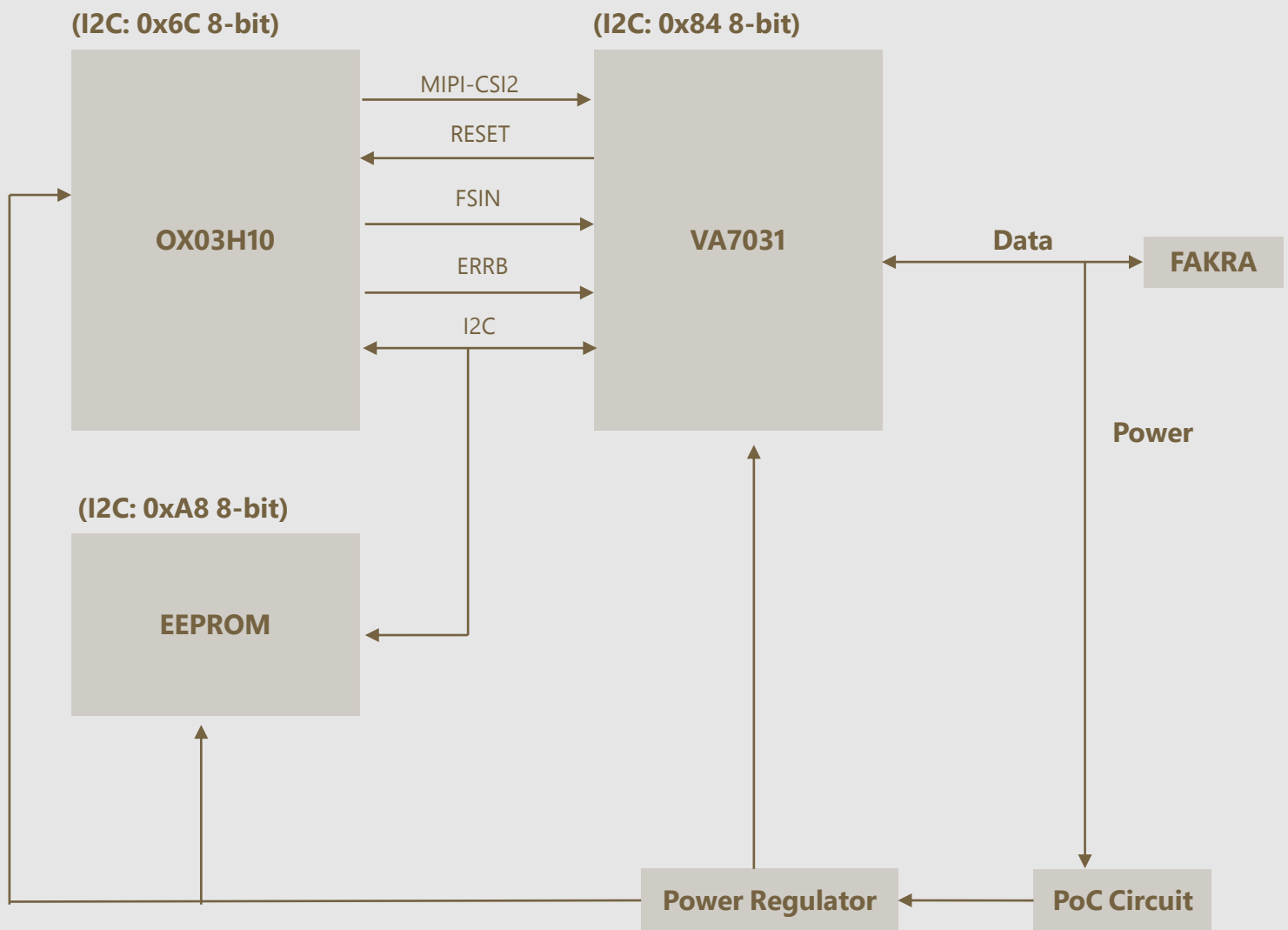
- ◆ SVS
- ◆ Rear View Camera
- ◆ Autonomous Driving

LENS SPECIFICATIONS

Effective Focal Length	2.9 mm
Aperture, F/#	1.8
Field of View (FOV)	120° horizontal
Distortion [f-tan θ]	-42% @ HFOV
Relative Illumination	82% @ HFOV
IR Filter	700 nm IR cut filter
Lens Mount	M12 x P0.5



SYSTEM BLOCK DIAGRAM



- REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	03 Jun 2026

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