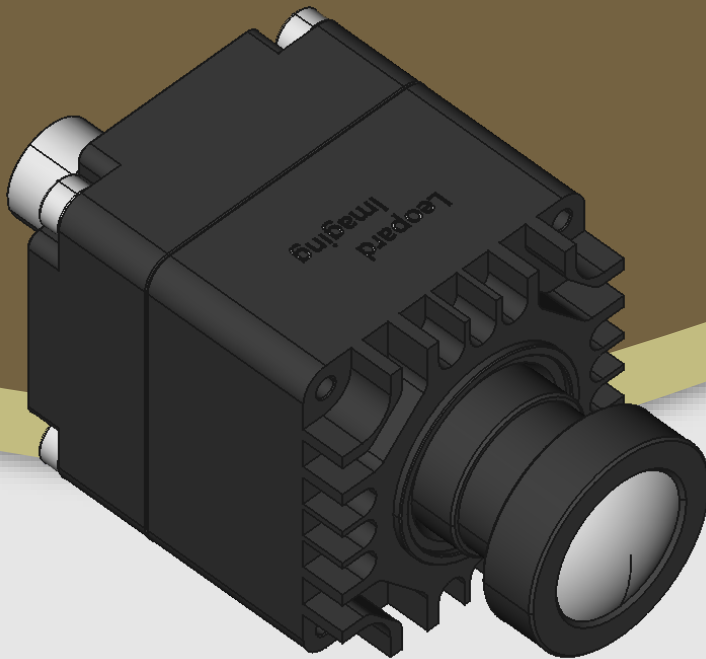




LI-VENUS-OX03F10-OAX40-GM2A-xxxH



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INTRODUCTION

The LI-VENUS-OX03F10-OAX40-GM2A-xxxH is equipped with OmniVision CMOS high-definition high dynamic range CMOS sensor OX03F10, automotive ISP OAX4000 and Maxim GMSL2 serializer MAX9295A/B. This camera outputs YUV data.

SPECIFICATIONS

Sensor	OmniVision high-definition high dynamic range sensor OX03F10
Optical Format	1/2.44"
Resolution	1920 (H) x 1536 (V) (Based on ISP binary)
Pixel Size	3.0 x 3.0 μm
Output Format	YUV
Color / Mono	Color sensor
Frame Rate	60 fps @ 1920 x 1536
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Lens	FOV H 30° / 60° / 120° / 195° / 200°
IP Rating	TBD
Serializer	Maxim MAX9295A/B
ISP	OMNIVISION automotive ISP OAX4000
Power Supply Range	8 ~ 17 VDC
Connector	FAKRA Z TYPE
Power Consumption	125 mA @ 12 VDC (1920 x 1536 @ 60 fps)
Operating Temp	TBD
Storage Temp	TBD
Weight	TBD

APPLICATIONS

- Automotive
 - ◆ Surrounding View System
 - ◆ Rear View Camera
 - ◆ Autonomous Driving

PART NUMBER

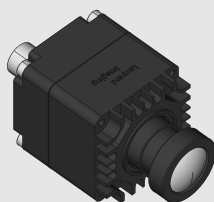
Lens FOV (Horizontal)	Part Number
30°	LI-VENUS-OX03F10-OAX40-GM2A-030H
60°	LI-VENUS-OX03F10-OAX40-GM2A-060H
120°	LI-VENUS-OX03F10-OAX40-GM2A-120H
195°	LI-VENUS-OX03F10-OAX40-GM2A-195H
200°	LI-VENUS-OX03F10-OAX40-GM2A-200H

CABLE CONNECTOR

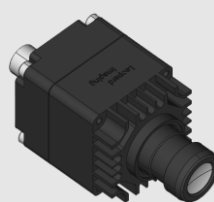
- Housing Connector
FAKRA Z Type
- Cable Length: 3 meters
- Cable Part#: FAK-SMZSMZ-3M



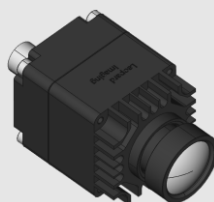
030H



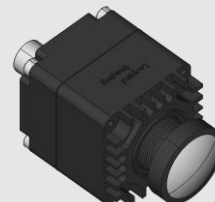
060H



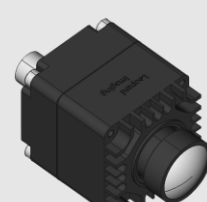
120H



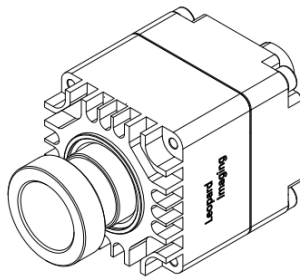
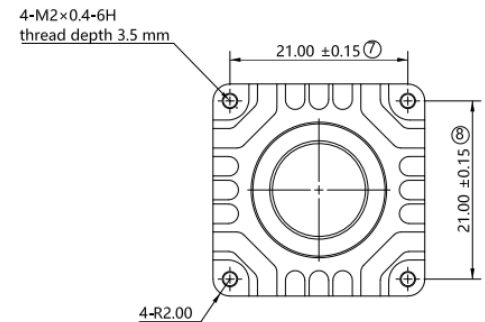
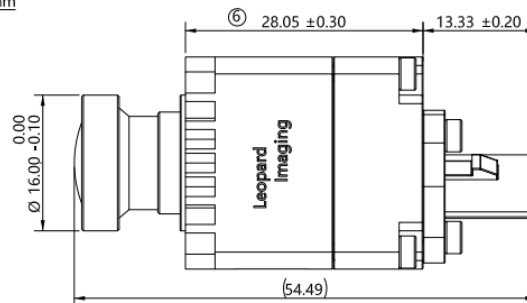
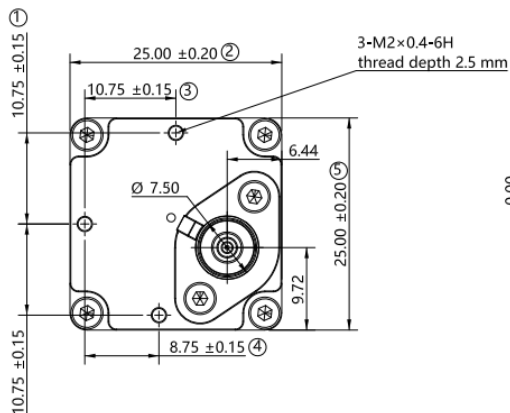
195H



200H



DIMENSIONS: LI-VENUS-OX03F10-OAX40-GM2A-030H



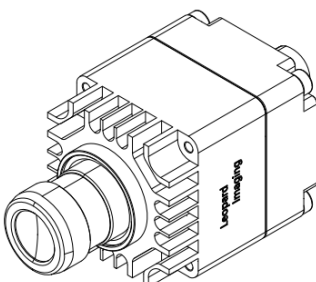
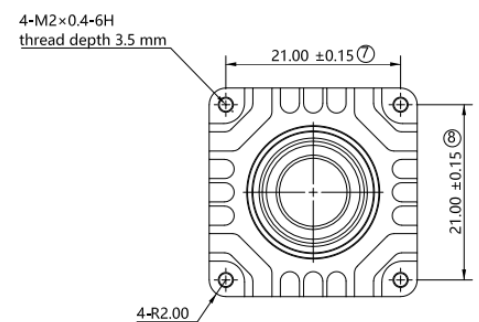
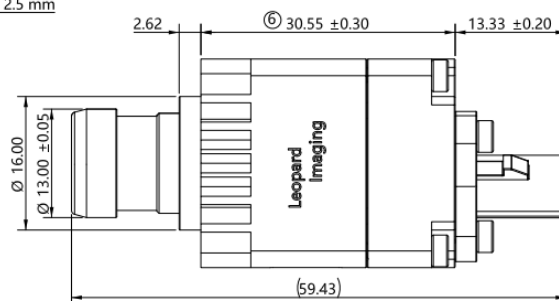
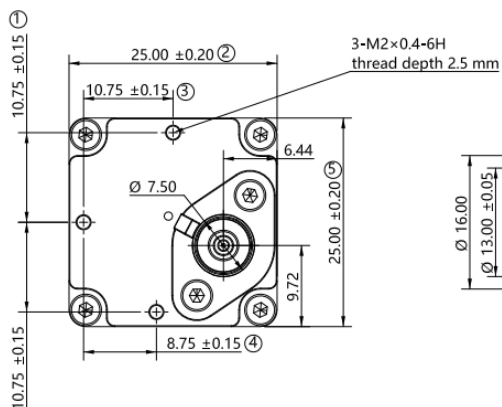
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X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

NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Tolerances for others unmarked refer to the Tolerance table.

Unit: mm

DIMENSIONS: LI-VENUS-OX03F10-OAX40-GM2A-060H



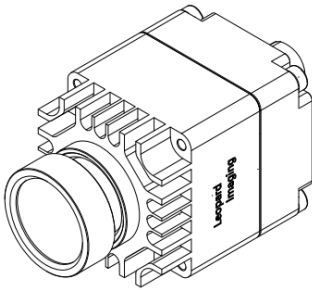
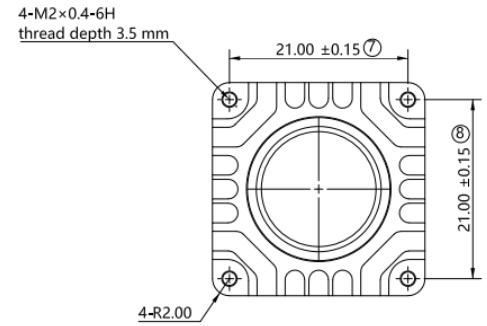
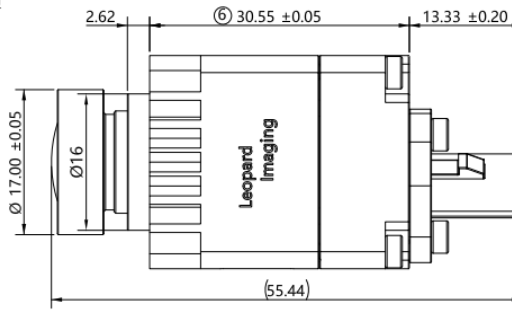
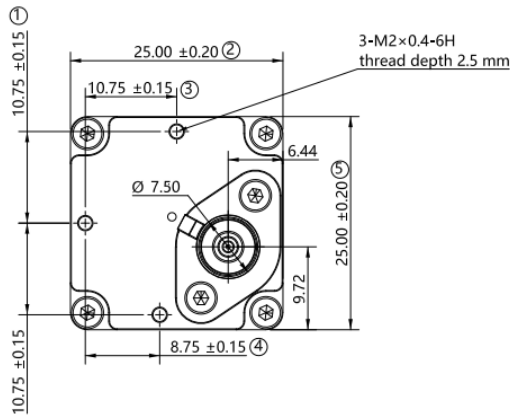
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X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

NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

DIMENSIONS: LI-VENUS-OX03F10-OAX40-GM2A-120H



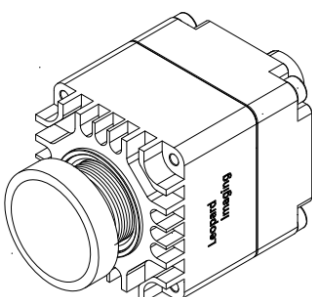
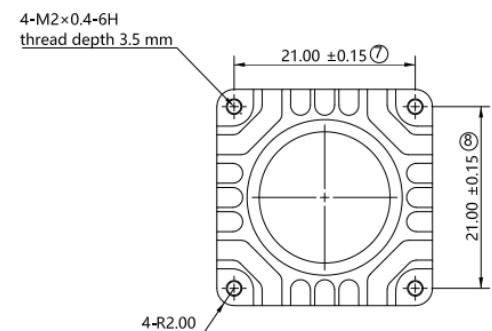
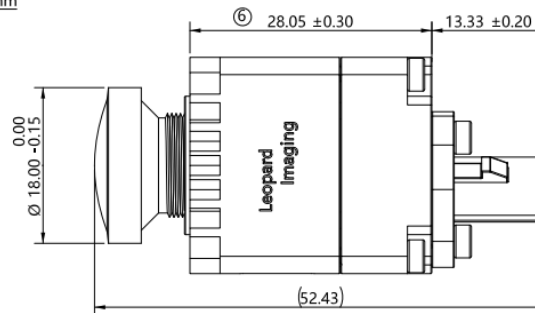
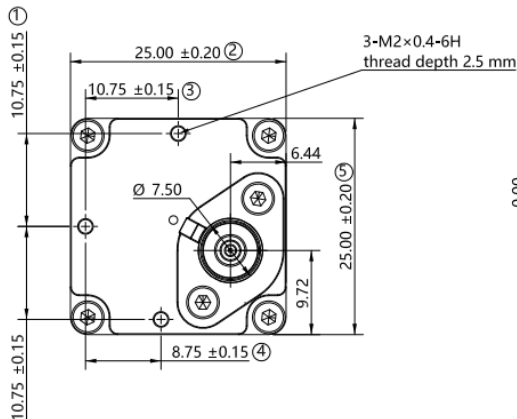
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3			120 < X ≤ 400	±10'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

NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

DIMENSIONS: LI-VENUS-OX03F10-OAX40-GM2A-195H



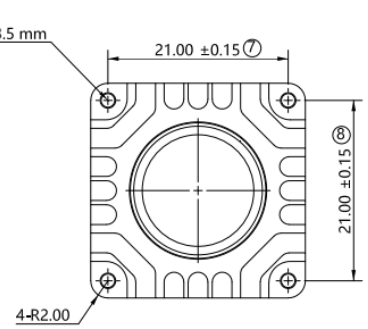
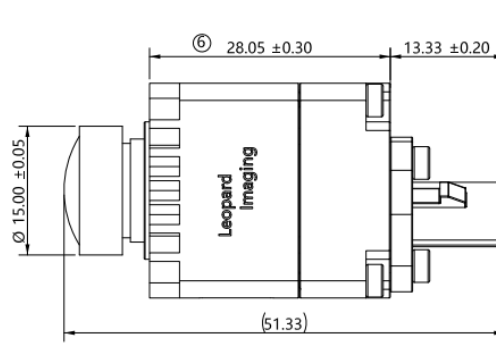
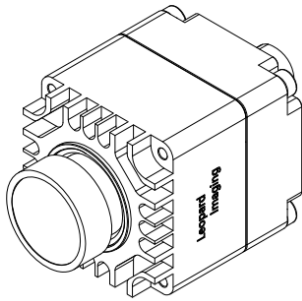
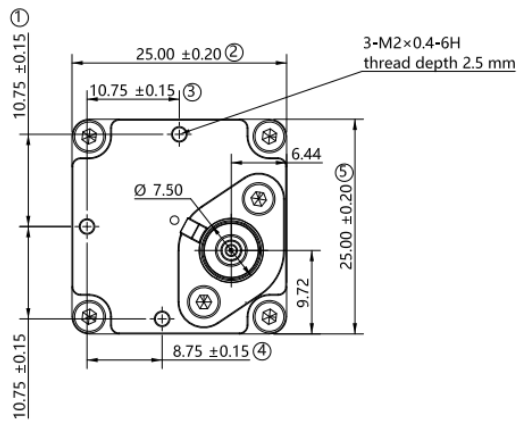
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3			120 < X ≤ 400	±10'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

NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

DIMENSIONS: LI-VENUS-OX03F10-OAX40-GM2A-200H



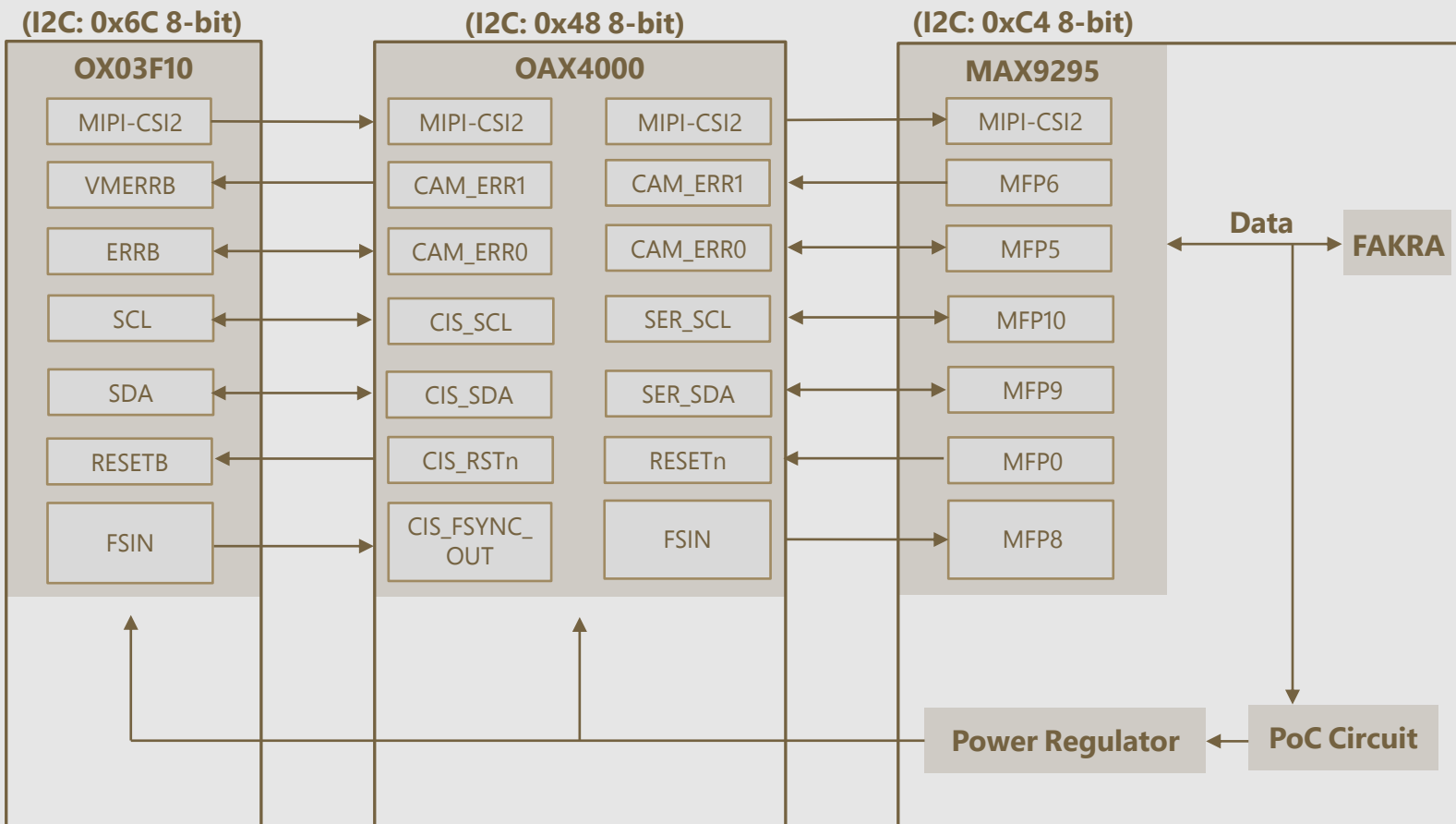
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
$0.5 < X \leq 3$	± 0.1	$0.5 < X \leq 3$	± 0.2	$X \leq 10$	$\pm 1^\circ$
$3 < X \leq 6$	± 0.1	$3 < X \leq 6$	± 0.5	$10 < X \leq 50$	$\pm 30'$
$6 < X \leq 30$	± 0.2	$6 < X \leq 30$	± 1	$50 < X \leq 120$	$\pm 20'$
$30 < X \leq 120$	± 0.3	$X > 30$	± 2	$120 < X \leq 400$	$\pm 10'$
$120 < X \leq 400$	± 0.5			$X > 400$	$\pm 5'$
$400 < X \leq 1000$	± 0.8				
$X > 1000$	± 1.2				

NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

PINOUT CONNECTIONS

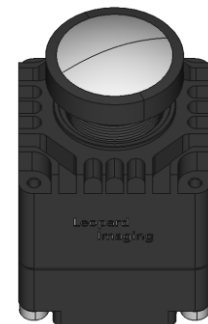


ORDERING INFORMATION

NOTE:

xxxH refers to 030H (FOV H 30°), 060H (FOV H 60°), 120H (FOV H 120°), 195H (FOV H 195°) or 200H (FOV H 200°)

LI-VENUS-OX03F10-OAX40-GM2A-030H	LI-VENUS-OX03F10-OAX40-GM2A-060H
	
Lens EFL: 11.655 mm $\pm$ 5%	Lens EFL: 5.83 mm $\pm$ 2%
Aperture, F/#: 2.5 $\pm$ 5%	Aperture, F/#: 1.8 $\pm$ 5%
Field of View (FOV): 30° horizontal	Field of View (FOV): 60° horizontal
Optical Distortion: -1.38% $\pm$ 5% (F-tan θ)	Optical Distortion: < -20.07% (2Y' = 6.826 mm)
Relative Illumination: $\geq$ 80.0%	Relative Illumination: 90% (2Y' = 6.826 mm)
IR Filter: 690 nm IR cut filter	IR Filter: 650 nm IR cut filter
Mount: M12 x P0.5	Mount: M12 x P0.5

LI-VENUS-OX03F10-OAX40-GM2A-120H	LI-VENUS-OX03F10-OAX40-GM2A-195H
	
Lens EFL: 2.9 mm	Lens EFL: 1.51 mm $\pm$ 5%
Aperture, F/#: 1.8	Aperture, F/#: 2.0 $\pm$ 5%
Field of View (FOV): 120° horizontal	Field of View (FOV): 195° $\pm$ 3° horizontal
Distortion [F- θ]: -42% @ HFOV	F- θ Distortion: -154.2% (y = 3.025 mm)
Relative Illumination: 82% @ HFOV	Relative Illumination: 37% (y = 3.025 mm)
IR Filter: 700 nm IR cut filter	IR Filter: 650 nm IR cut filter
Mount: M12 x P0.5	Mount: M12 x P0.5

ORDERING INFORMATION

LI-VENUS-OX03F10-OAX40-GM2A-200H



Lens EFL: 1.44 mm

Aperture, F/#: 2.0 $\pm$ 5%

Field of View (FOV): 200° horizontal

Distortion ($y=f\theta$) : +10% @ IH 2.77

Relative Illumination: 40.0% @ IH 2.4

IR Filter: Visible + 940 nm band pass filter

Mount: M12 x P0.5

● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	22 Sep 2023

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