

oToBrite



Robotics Camera

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oToCAM269 Series (ISX031)

Overview

The oToCAM269-H64P / oToCAM269-C120P / oToCAM269-S195P is an MIPI camera for the application of autonomous driving systems. It uses a highly sensitive CMOS sensor to perform good image quality for the detection purpose of the system product.



oToCAM269-H64P



oToCAM269-C120P



oToCAM269-S195P

Specifications

• General Specifications

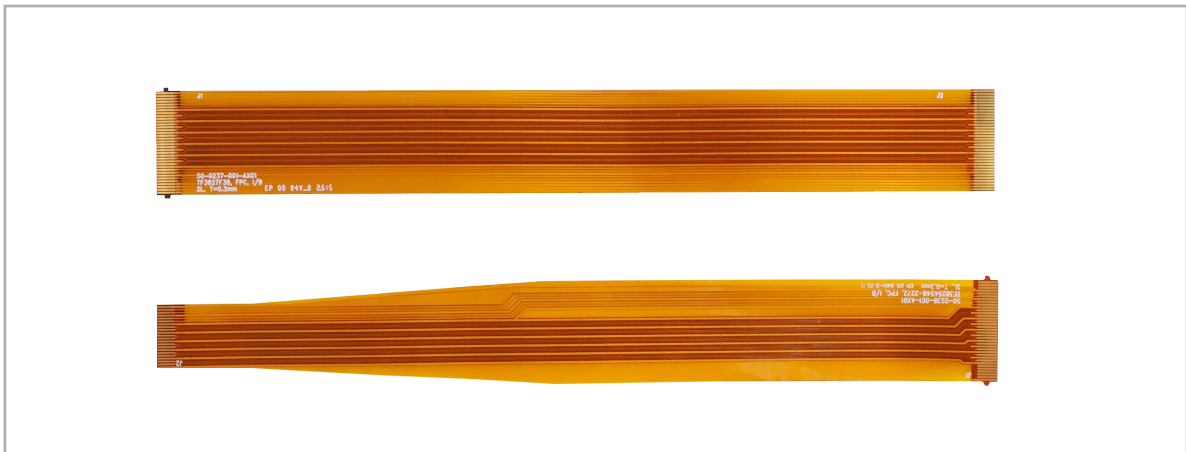
Item	Specifications
Image sensor	CMOS (Sony ISX031)
HDR	Supported
LFM	Supported
Optical format	1/2.42"
Pixel size	3.0 μm (H) $\times$ 3.0 μm (V)
Camera number of pixels	2.95M (1920 (H) $\times$ 1536 (V))
Color filter array	RGGB
Output Interface	MIPI CSI-2
Output Formats	MIPI 4lane YUV422 8bits
S/N ratio	TBD
Startup time of power in	Within 200ms
Frame rate	30 fps (By setting)
Operating Temperature	-40°C ~ +85°C
Storage temperature Range	-40°C ~ +95°C
Waterproof	Designed to meet IP67/IP69K rating with matching rear cover and O-ring (O-ring by request)

• Product Specifications (by models)

Item	oToCAM269-H64P	oToCAM269-C120P	oToCAM269-S195P
View angle (H)	63.9°	120.6°	195.9°
Resolution (Center/Corner)	TV line Center $\geq$ 850, Corner $\geq$ 700	TV line Center $\geq$ 1000, Corner $\geq$ 900	TV line Center $\geq$ 950, Corner $\geq$ 850
Lens structure	6G+IR	6G+IR	2G4P+IR
Lens F No.	F1.6	F1.4	F2.0
Power source / Typical	DC 4~17 V/4V (TF382T38 36pin FPC Cable) DC 3.3 V/3.3V (TF38254548-2272 22pin FPC Cable)	DC 4~17 V/4V (TF382T38 36pin FPC Cable) DC 3.3 V/3.3V (TF38254548-2272 22pin FPC Cable)	DC 4~15 V/4V (TF382T38 36pin FPC Cable) DC 3.3 V/3.3V (TF38254548-2272 22pin FPC Cable)
IR cut edge	650nm	650nm	650nm
DOF/Object Distance	3.0M~inf.@Inf.	1.0M~inf.@inf	0.14M~inf.@50cm
Camera Current Consumption	$\leq$ 220mA @4V (25°C)	$\leq$ 220mA @4V (25°C)	$\leq$ 220mA @4V (25°C)
Dimensions	28 x 35 x 34.9 mm (to MIPI connector)	28 x 28 x 35.9 mm (to MIPI connector)	28 x 28 x 31.7 mm (to MIPI connector)
Weight	27.69g	26.79g	28.1g

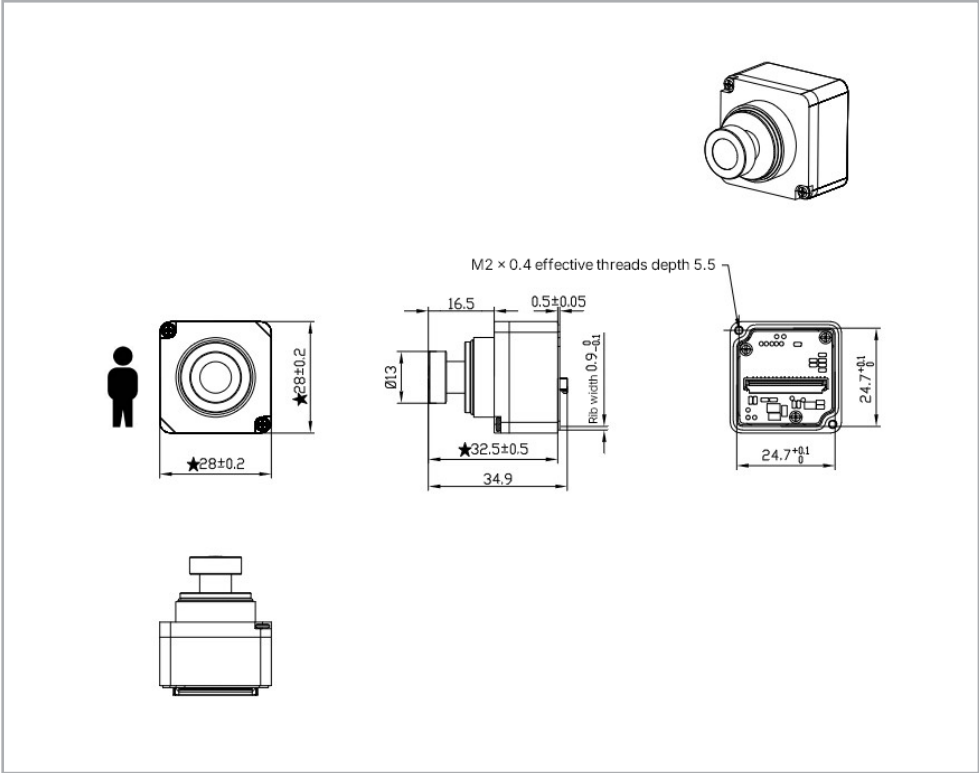
• FPC Cable:(Optional)

Part number	Name	Length	Remark
50-0237-001-AX01	TF382TF38, FPC, I/B, 2L, T=0.3mm	150mm	
50-0238-001-AX01	TF38254548-2272, FPC, I/B, 2L, T=0.3mm	150mm	Connect to Nvidia Orin Nano / NX

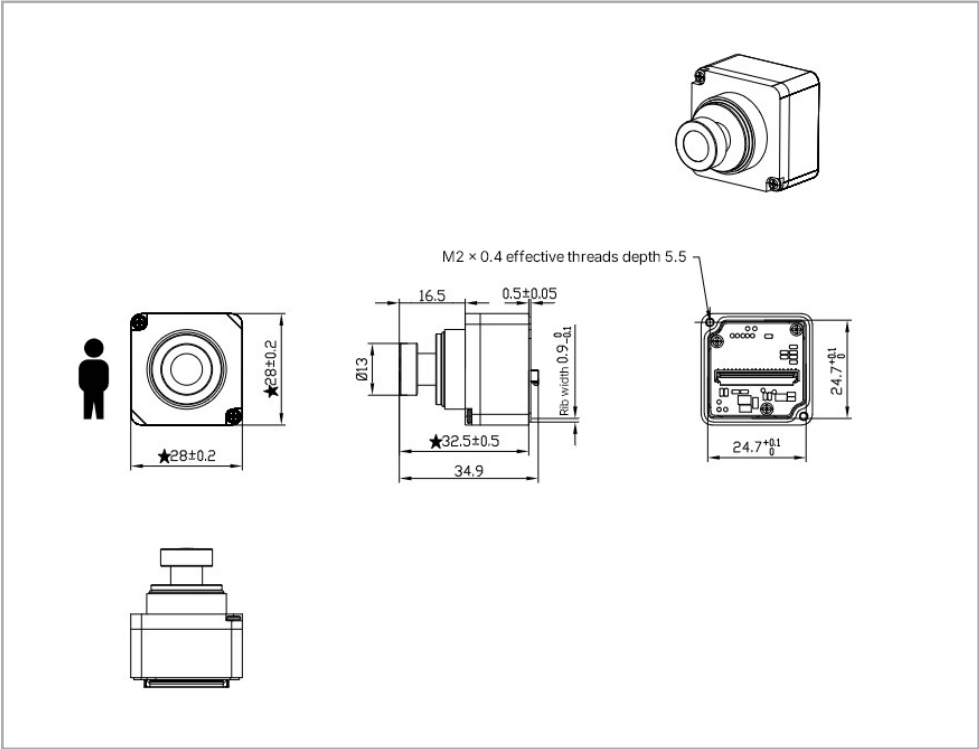


Outline Drawing

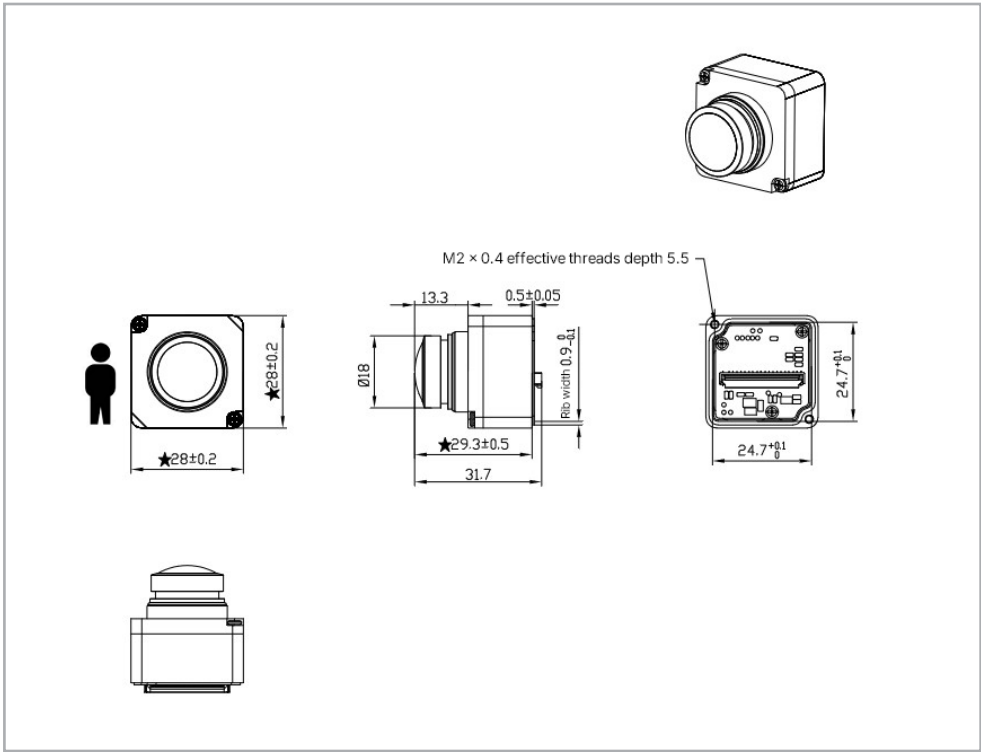
- oToCAM269-H64P Mechanical Dimensions



- oToCAM269-C120P Mechanical Dimensions



• oToCAM269-S195P Mechanical Dimensions



Interface, Cables and Connectors

- Connectors: Hirose, TF38-36S-0.5SV(830)

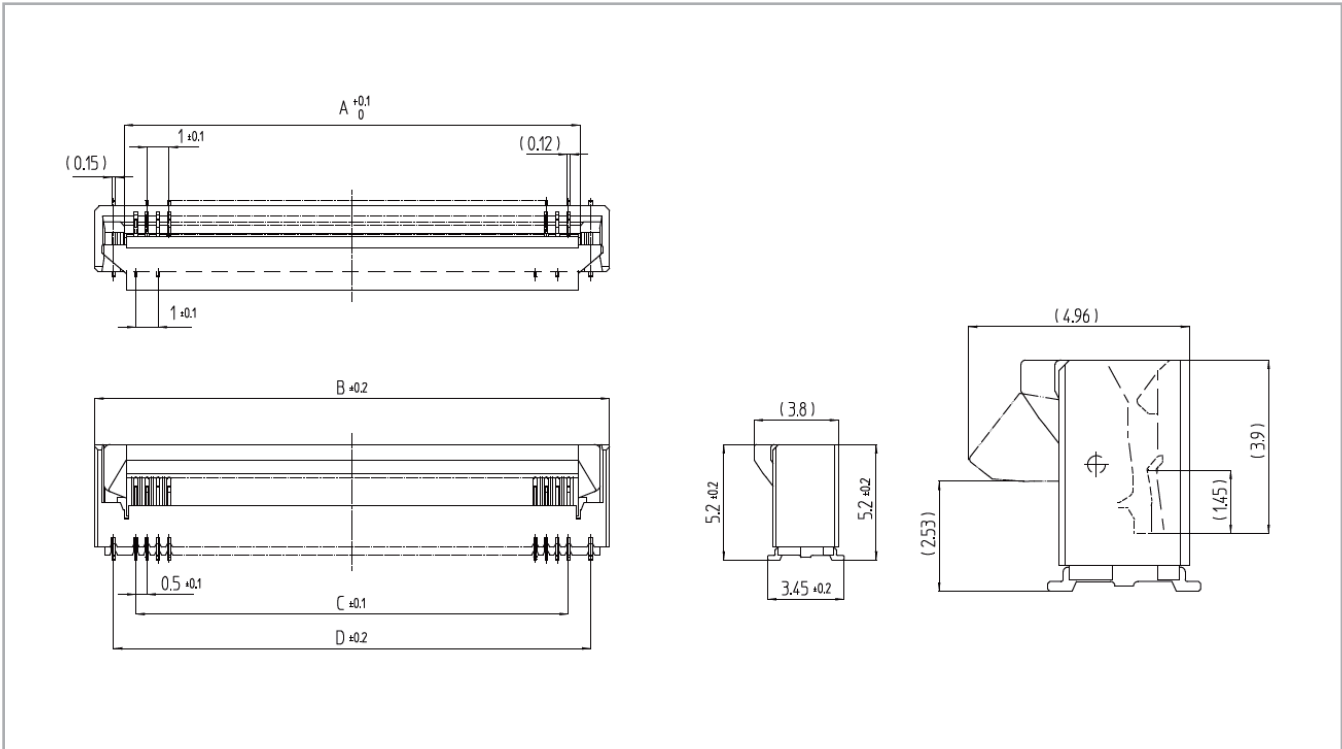


Figure Hirose, TF38-36S-0.5SV(830)

Part No	HRS No.	No. of Pos.	A	B	C	D
TF38-36S-0.5SV(830)	CL0480-0207-0-30	36	18.57	21.2	17.5	19.5

Unit : mm

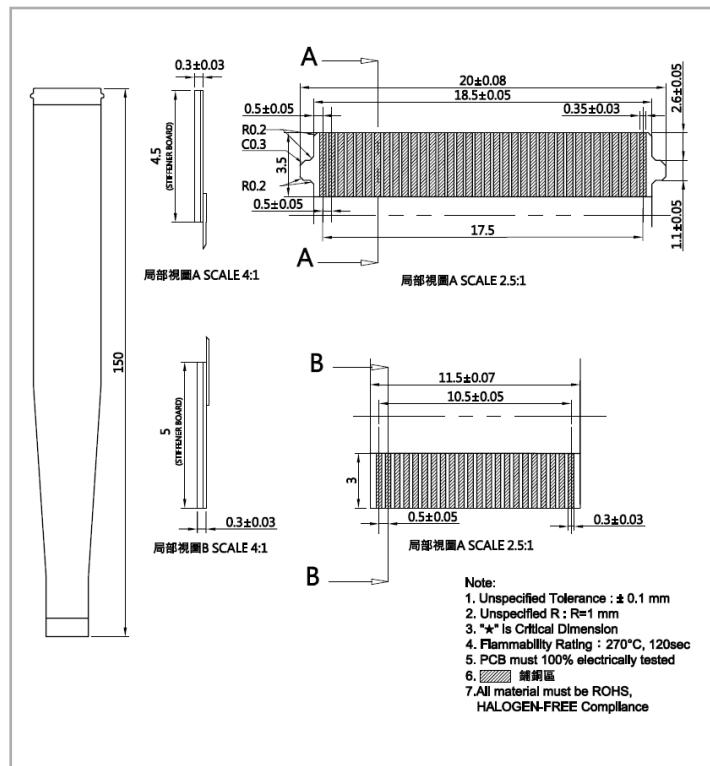
• Connector Pin definition:

Pin No	Signal Name	Description
1	DGND	Digital GND
2	NC	NC
3	XCLR2	Reset input 2
4	NC	NC
5	XERROR_18N	Fault detection output
6	FSYNC_18P	Frame sync input
7	DGND	Digital GND
8	MIPI_TXDL0N	MIPI CSI-2 output
9	DGND	Digital GND
10	MIPI_TXDL0P	MIPI CSI-2 output
11	DGND	Digital GND
12	MIPI_TXDL1N	MIPI CSI-2 output
13	DGND	Digital GND
14	MIPI_TXDL1P	MIPI CSI-2 output
15	DGND	Digital GND
16	MIPI_TXCLN	MIPI CSI-2 output
17	DGND	Digital GND
18	MIPI_TXCLP	MIPI CSI-2 output
19	DGND	Digital GND
20	MIPI_TXDL2N	MIPI CSI-2 output
21	DGND	Digital GND
22	MIPI_TXDL2P	MIPI CSI-2 output
23	DGND	Digital GND
24	MIPI_TXDL3N	MIPI CSI-2 output
25	DGND	Digital GND
26	MIPI_TXDL3P	MIPI CSI-2 output
27	DGND	Digital GND
28	XCLR1	Reset input 1
29	INCK_18P	Clock input (reserve)
30	DGND	Digital GND
31	SCL_18P	I2C clock
32	SDA_18P	I2C data
33	*NC	NC
34	**4V	Power input
35	**4V	Power input
36	**4V	Power input

Note1 *If oToCAM269 Series connects to Nvidia Orin / NX board, the pin is 3.3V.

Note2 **If oToCAM269 Series connects to Nvidia Orin / NX board, the pin is NC.

● FPC Cable Outline Drawing and Pin definition:50-0237-001-AX01

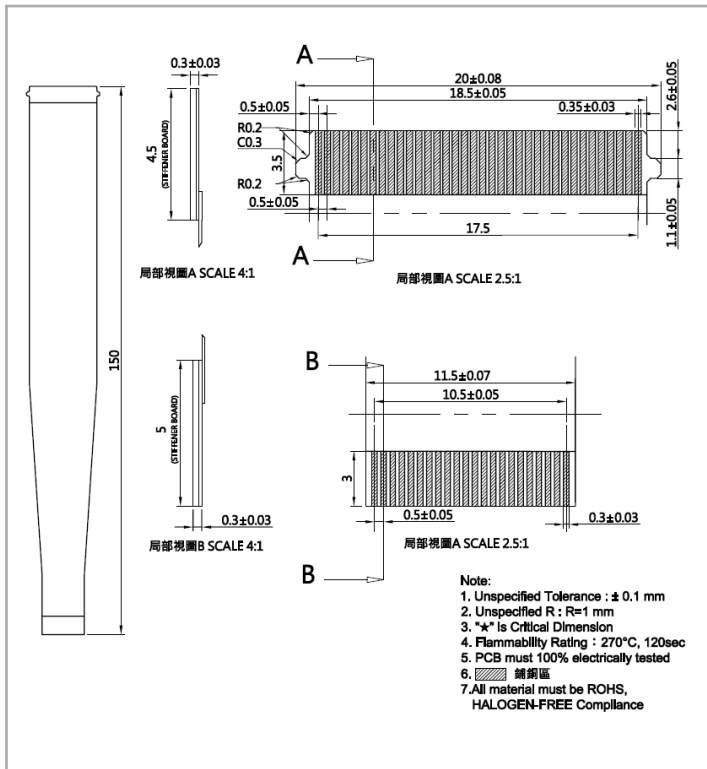


Note: A connect to oToCAM269 Series

PN	36pin
Pin#	oToCAM269-S195P
1	DGND
2	NC
3	NC
4	NC
5	NC
6	NC
7	DGND
8	MIPI_TXD0N
9	DGND
10	MIPI_TXDL0P
11	DGND
12	MIPI_TXDL1N
13	DGND
14	MIPI_TXDL1P
15	DGND
16	MIPI_TXCLN
17	DGND
18	MIPI_TXCLP
19	DGND
20	MIPI_TXDL2N
21	DGND
22	MIPI_TXDL2P
23	DGND
24	MIPI_TXDL3N
25	DGND
26	MIPI_TXDL3P
27	DGND
28	XCLR1
29	INCK_18P
30	DGND
31	SCL_18P
32	SDA_18P
33	3V3
34	NC
35	NC
36	NC

PN	22pin
Pin#	Nvidia Orin Nano / NX
22	DGND
21	MIPI_TXD0N
20	MIPI_TXDL0P
19	DGND
18	MIPI_TXDL1N
17	MIPI_TXDL1P
16	DGND
15	MIPI_TXCLN
14	MIPI_TXCLP
13	DGND
12	MIPI_TXDL2N
11	MIPI_TXDL2P
10	DGND
9	MIPI_TXDL3N
8	MIPI_TXDL3P
7	DGND
6	XCLR1
5	INCK_18P
4	DGND
3	SCL_18P
2	SDA_18P
1	3V3

● FPC Cable Outline Drawing and Pin definition:50-0237-001-AX01



PN	36pin
Pin#	oToCAM269-S195P
1	DGND
2	NC
3	NC
4	NC
5	NC
6	NC
7	DGND
8	MIPI_TXDON
9	DGND
10	MIPI_TXDL0P
11	DGND
12	MIPI_TXDL1N
13	DGND
14	MIPI_TXDL1P
15	DGND
16	MIPI_TXCLN
17	DGND
18	MIPI_TXCLP
19	DGND
20	MIPI_TXDL2N
21	DGND
22	MIPI_TXDL2P
23	DGND
24	MIPI_TXDL3N
25	DGND
26	MIPI_TXDL3P
27	DGND
28	XCLR1
29	INCK_18P
30	DGND
31	SCL_18P
32	SDA_18P
33	3V3
34	NC
35	NC
36	NC

[illegible]

driving easier and safer



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