SG20-IMX283C-MIPI-Hxxx

20MP MIPI CAMERA

www.sensing-world.com

GENERAL DESCRIPTION

The camera is equipped with SONY CMOS image sensor IMX283, 20 million high-resolution image output, excellent performance in UAV high-altitude shooting, ground remote monitoring and close-range industrial detection , can be adapted to different SOC platforms.



KEY PARAMETERS

Sensor	Sony 20.3MP IMX283 RGGB
ISP	/
Chip size	16.226 mm (H) × 12.654 mm (V)
Image Size	Diagonal 15.86mm (Type 1)
Resolution	5472Hx3648V@20fps RAW12 5472Hx3648V@25fps RAW10 3840Hx2160V@60fps RAW10 2736Hx1824V@50fps RAW12 (2/2 binning) 1824Hx1216V@60fps RAW12 (3/3 binning)
Pixel Size	2.40um*2.40um
HDR Support	/
Output Format	MIPI RAW10/RAW12
Power Supply	3.3V
Current	<500mA@3.3VDC
Camera interface	FPC
Connector	AFC07-S22ECA-00
Operating temp.	-20 to +75℃
Performance temp.	-20 to +60℃
Dimensions	W: 40mm, L:40mm, H:101mm
Weight	<400g

Features

- Raw output
- Support binning mode
- High sensitivity, low dark current
- Excellent anti-blooming perfor-mance
- Support Global Shutter exposure mode
- Support different focal length lens

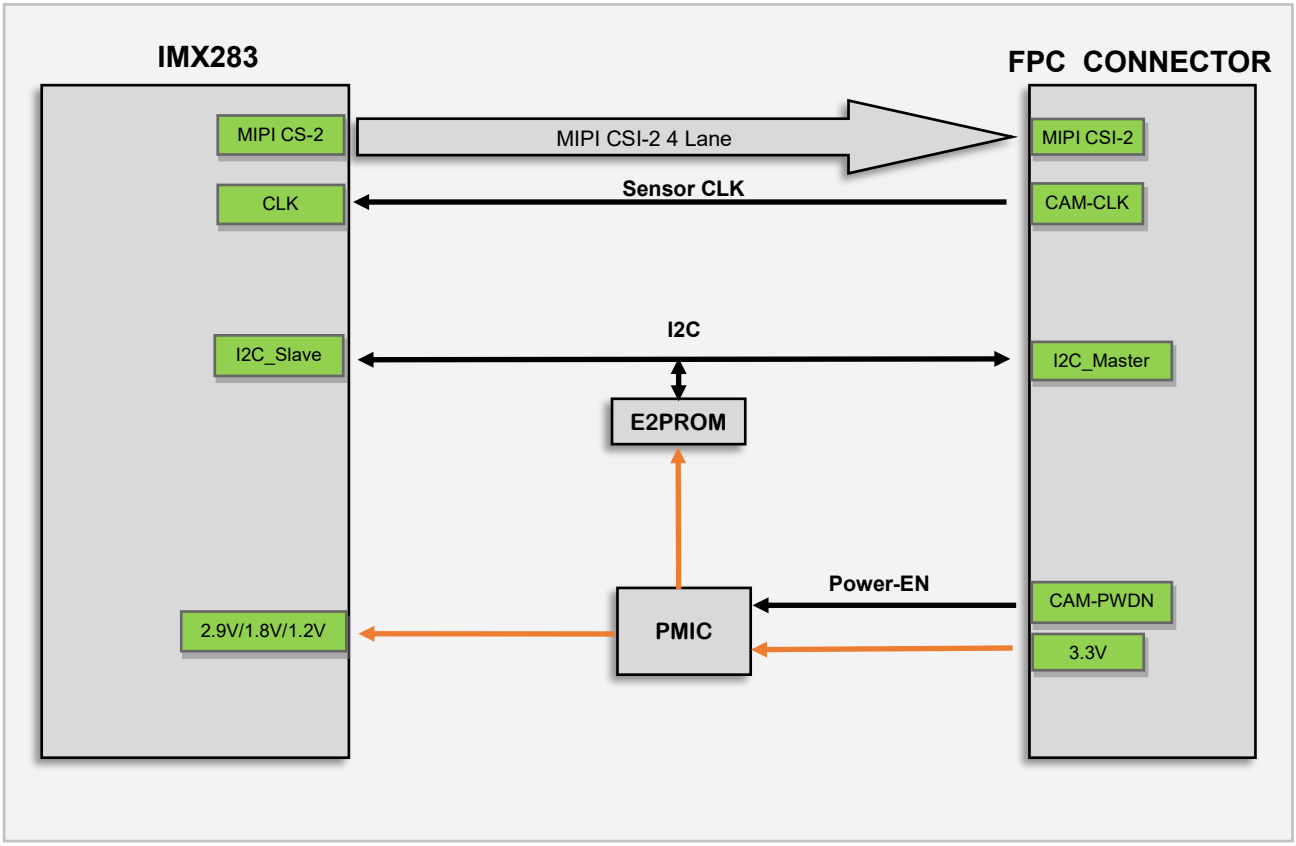
Application

- Machine-vision
- Intelligent transportation
- Aeronautics and Astronautics
- Industrial inspection

HARDWARE SETTING

EEPROM	
I2C Address	0xA0(8bit address)

Sensor	
Model	**IMX283**
I2C Address	0x20(8bit address)



Block Diagram

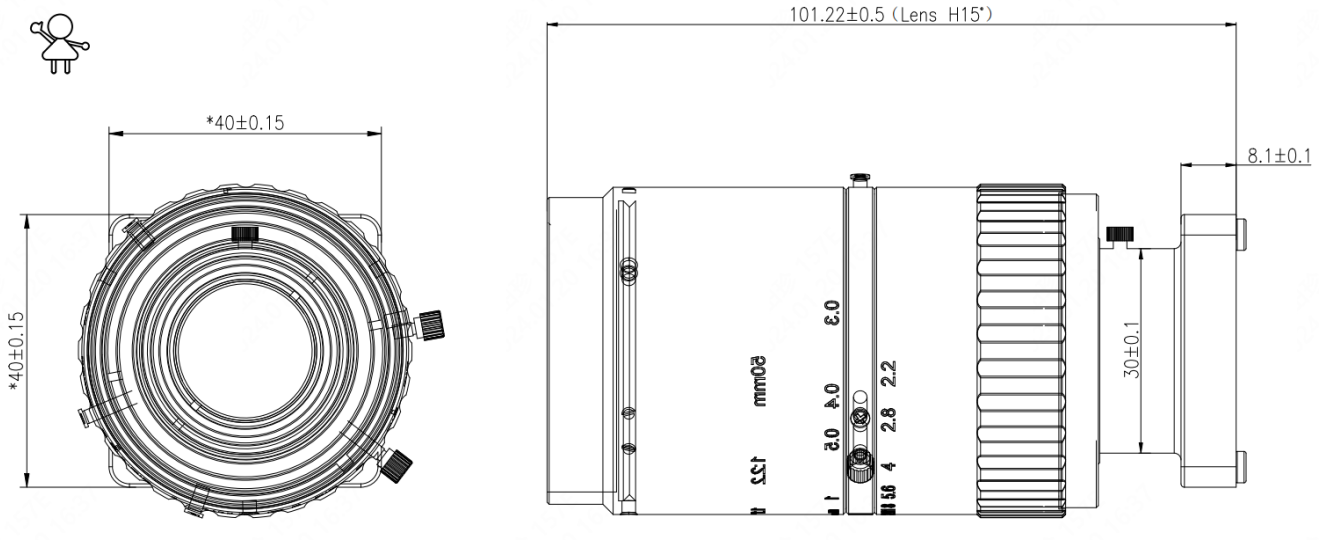
Pin Definitions

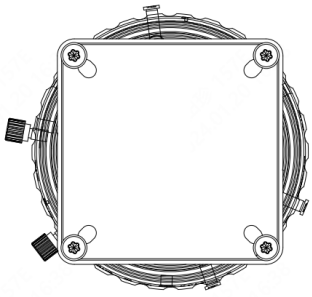
22Pin		
Number	**Pin**	**remark**
1	GND	
2	D1 N	
3	D1 P	
4	GND	
5	D2 N	
6	D2 P	
7	GND	
8	CLK N	
9	CLK P	
10	GND	
11	D3 N	
12	D3 P	
13	GND	
14	D4 N	
15	D4 P	
16	GND	
17	CAM-PWDN	1.8V or 3.3V/IO
18	CAM-CLK	Default: Modules use an in-
19	GND	
20	CAM-SCL	3.3V/IO
21	CAM-SDA	3.3V/IO
22	VCC-3.3V	

MODEL AND LENS

Model	HFOV	VFOV	F.No	EFL	Max Optical	Lens Mount
SG20-IMX283C-MIPI-H15B	15°	10°	F2.2	50mm	0.1%	C-mount
SG20-IMX283C-MIPI-H30B	30°	25°	F2.0	25mm	0.25%	C-mount
SG20-IMX283C-MIPI-H60B	57.6°	40.5°	F2.8	12mm	0.5%	C-mount
SG20-IMX283C-MIPI-H90B	95°	73°	F2.5	6mm	0.23%	C-mount

DIMENSIONS





Note:

△ There are different heights of this size to match different lenses. Please refer to 3D digital analog size for details.

△ This icon indicates the imaging direction is positive.

Diagram

PLATFORMS SUPPORT

Platforms	Product Link
NVDIA Jetson Platforms (Jetson Orin Nano/NX) 	Provide development driver package https://www.sensing-world.com jetson_camera_ecosystem

Revision History

Version	Description	Release date
Rev1.0	First Release	2024.01

Contact Us

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