



VISION



AI



CLOUD



SECURITY

Sensor Module

iSM-IMX415



SONY
Powered by Sony

Key features:

- Ready to embed with iENSO vision platform ecosystem
- 8MP resolution and 4KP60 video performance
- Featured with digital overlap HDR
- BSI structure to achieve high-sensitivity and high-quality image in multiple lighting conditions

- Standard MIPI CSI-2 output interface
- Various lens options available

Compatible embedded vision camera platforms:

- iENSO iVS-CV28P
- iENSO iVS-CV22
- Any camera platform supporting MIPI CSI-2 interface

Image Sensor	
Sensor Model	Sony IMX415
Shutter Type	Rolling Shutter
Chromaticity/Signal Type	Color/RGB
Optical Format	1/2.8"
Pixel Size	1.45 x 1.45 μm
Max. Resolution	8.6MP / 3864 x 2228
Frame Rate (max.)	60 fps / 12 bit 90 fps / 10 bit
Bit Depth(s)	10 / 12 bit
HDR	Supported, Digital overlap

Interface	
Data Interface	MIPI CSI-2 (2 / 4 lane)
Communication Interface	I2C
Input Voltage	3.3V
Interface Connector	Hirose FH58 series • FH58-41S-0.2SHW

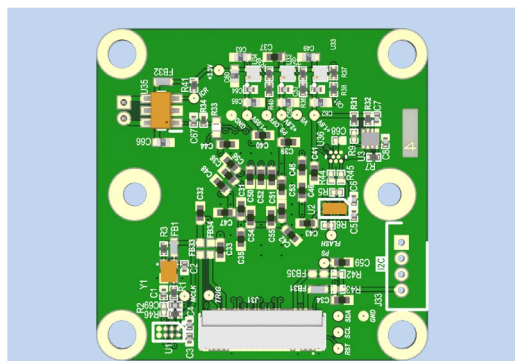
Mechanical	
Dimensions (w/o Lens)	26 x 26 mm
Optical	
Lens Mount	M12

Optical	Consult iENSO for lens options
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Environmental	
Operating Temperature	-30°C to +85°C (Function) -10°C to +60°C (Performance)
Storage Temperature	-40°C to +85°C
Ambient Humidity	20% to 90% RH, non-condensing

- Application-based turnkey embedded vision solutions
- Edge AI for powerful on-device decision-making
- Flexible Cloud platform and end-to-end security

Sensor Module Pinout



J1		Pin 1	
PIN	Name	PIN	Name
1	RST_N-H	21	GND
2	Hsync-H	22	DCLK P
3	Vsync-H	23	GND
4	+3V3_AUX	24	DCLK_N
5	PS	25	GND
6	ICR_CTL	26	DMO1 P
7	GND	27	GND
8	5.0V	28	DMO1_N
9	SCK-H	29	GND
10	SDA-H	30	DMO3 P
11	GND	31	GND
12	MCLK-H	32	DMO3_N
13	GND	33	GND
14	DMO2 P	34	SCK3
15	GND	35	SDA3
16	DMO2_N	36	+1V1D
17	GND	37	CV CLK
18	DMO0 P	38	CV EN0
19	GND	39	CV MOSI
20	DMO0_N	40	CV MISO
		41	+1V8D

Connector Type: Hirose FH58-41S-0.2SHW

Popular Applications



SECURITY



PRECISION FARMING

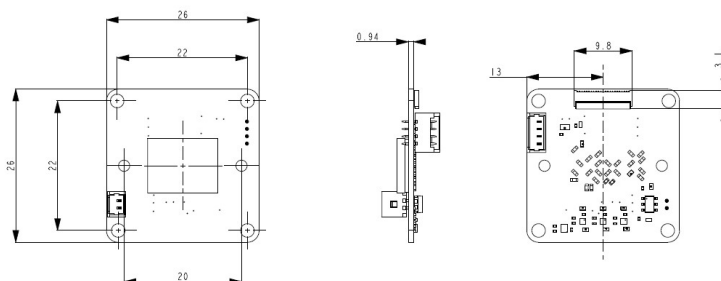


DRONES



INDUSTRIAL / ROBOTICS

Mechanical Drawing



iENSO Sensor Module Test Platform

High-speed USB3.0 output

Standard MIPI CSI-2 interface

Optics focus checking

RAW image configuration

Compatible with OS Windows 7 and above

iENSO Sensor Module EVK

- iSM Test Platform
- Sensor Module: iSM-IMX415
- Included Optics:
 - Lens#1: 4.6mm, F2.0, HFOV 75 degrees
 - Lens#2: 3.1mm, F2.4, HFOV 85 degrees

For more information, visit iENSO.com

- Custom module and optics available upon request
- Minimum order quantities may apply
- Contact sales to discuss your specific needs



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