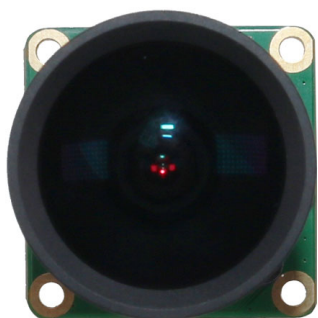


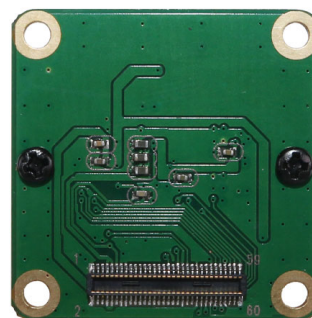


HAMPO-FMS-IMX334 V1.0

8.42MP Sony IMX334 MIPI Interface M12 Fixed Focus Camera Module



Front View



Back View

Specifications

Camera Module No.	HAMPO-FMS-IMX334 V1.0
Resolution	8.42MP
Image Sensor	IMX334
Sensor Type	1/1.8"
Pixel Size	2.0 um x 2.0 um
EFL	4.00 mm
F.NO	1.80
Pixel	3840 x 2160
View Angle	130.0°(DFOV) 100.0°(HFOV) 59.0°(VFOV)
Lens Dimensions	20.00 x 20.00 x 33.80 mm
Module Size	26.50 x 26.50 mm
Module Type	Fixed Focus
Interface	MIPI
Auto Focus VCM Driver IC	None
Lens Model	HAMPO-LENS-MJ7049A
Lens Type	650nm IR Cut
Operating Temperature	-30°C to +85°C
Mating Connector	DF40C-60DS-0.4V(51)

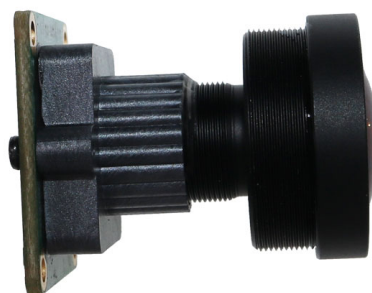


HAMPO-FMS-IMX334 V1.0

8.42MP Sony IMX334 MIPI Interface M12 Fixed Focus Camera Module



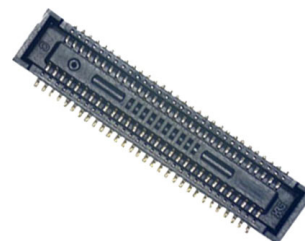
Top View



Side View



Bottom View

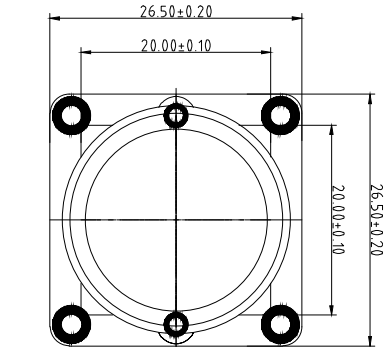
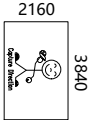


Mating Connector

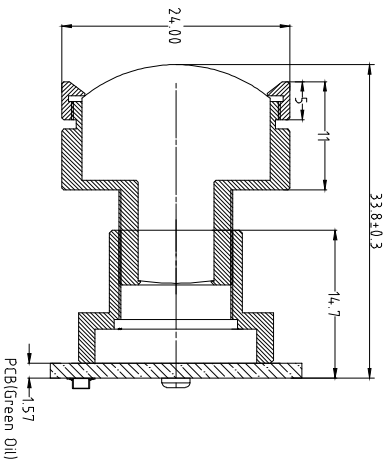
RoHS

PIN	SIGNAL	PIN	SIGNAL
1	NC	31	XTRIG
2	NC	32	TOUT
3	NC	33	NC
4	NC	34	NC
5	AVDD 2.9V	35	SLAMODE1
6	DVDD 1.2V	36	SLAMODE2
7	AVDD 2.9V	37	GND
8	DVDD 1.2V	38	GND
9	DOVDD 1.8V	39	INCK
10	NC	40	NC
11	GND	41	NC
12	GND	42	NC
13	GND	43	GND
14	GND	44	GND
15	XCLR	45	NC
16	NC	46	D_DATA_3_P
17	NC	47	NC
18	NC	48	D_DATA_3_N
19	XMASTER	49	GND
20	TEST1	50	GND
21	SCL	51	D_DATA_0_N
22	NC	52	D_DATA_1_N
23	NC	53	D_DATA_0_P
24	NC	54	D_DATA_1_P
25	XVS	55	GND
26	NC	56	GND
27	SDA	57	D_DATA_2_P
28	NC	58	D_CLK_0_P
29	XHS	59	D_DATA_2_N
30	TENABLE	60	D_CLK_0_N

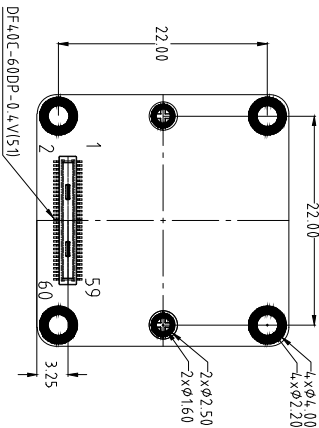
Version	Information	Date
V1.0	First Version	6-23-2020



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Parameters:

1、Sensor specification:

Image Sensor: IMX334LQR-C
Pixel: 2.0um×2.0um
Lens Type: 1/1.8
Important Voltage Description:
AVDD 2.9V; DOVDD 1.8V; DVDD 1.2V

2、Lens specification:

FOV: 130°(D);100°(H);59°(V)
F/NO.: 1.8
TV distortion: <-35%
Focal length: 4mm
Composition: 6G+IR FILTER
IR Cut Coating: 650nm±10nm@50%

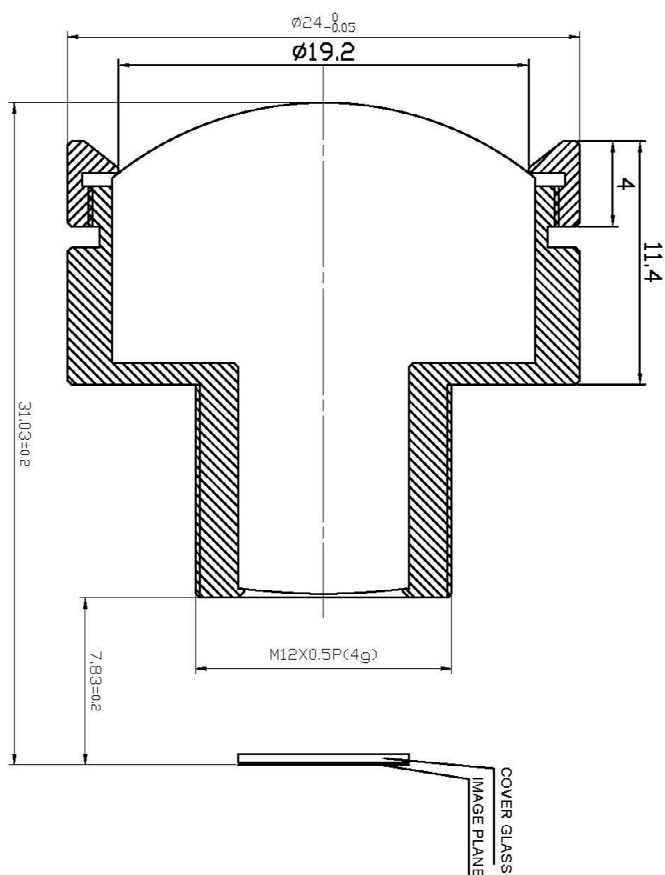
Designed By	Kevin	Model Name:	FMS-IMX334 V1.0		
Checked By	Aouly__Yan	Projection Type:	Unit: mm	Material:	Version: 1/0
		Third Angle	Scale: 1:1	Sheet: 1 of 1	



HAMPO-LENS-MJ7049A

SPECIFICATION

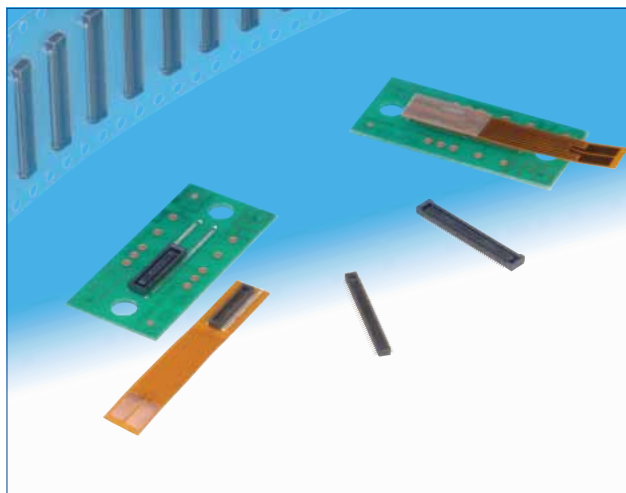
1. FOR 1/8" SENSOR
2. IMAGE HEIGHT $\phi 9.2$
3. EFL=4mm
4. WORKING F/NO.=1.8
5. BFL=7.83mm
6. FOV=130°
7. DISTORTION=-3.5%
8. RELATIVE ILLUMINATION=85%($\gamma=1$)
9. CONSTRUCTION: 6G+IRF
10. THREAD: M12X0.5P
11. IR FILTER 650±10nm



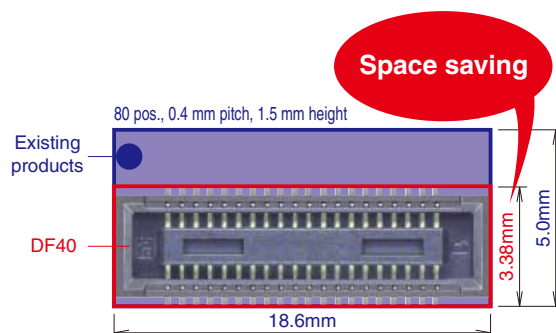
⑤	公差	±0.1	材料	REVISION	DATE
④	公差	±0.05	材料	REV. A-01	DATE
③	公差	±0.05	材料		
②	公差	±0.5°	材料		
①	公差	±0.5°	材料		
REVISION RECORD					
NAME DATE					
UNIT SCALE					
1:1					
DRAWN					
CHECKED					
DATE					

0.4mm Pitch, 1.5 to 4.0mm Height, Board-to-Board and Board-to-FPC Connectors

DF40 Series



Space saving



■Features

1. High density mounting

Space saving design that has a minimum connector width, yet still retains a sufficient vacuum area for easy pick-and-place mounting
Minimum width : 3.38mm

2. Multiple stack height options

In addition to its space saving design, several stack heights are available and add versatility to any application. Stack heights : 1.5mm, 2.0mm, 2.5mm, 3.0mm, 3.5mm, and 4.0mm.

3. High contact reliability

Despite its small stature and low profile, the contacts deliver strong contact forces and an effective mating length of 0.45mm on the 1.5mm stacking height. This connector utilizes a locking system that prevents accidental unmating issues and emits a clear tactile click to ensure that mating has been completed.

4. Excellent self-aligning range

The use of guide ribs allows 0.33mm of self-alignment on this connector.

5. Reinforced structure with shock absorbing ribs

Both sides of the connector have been reinforced with the addition of shock absorbing ribs.

6. Solder wicking prevention

Nickel-plated barriers were added to protect the contact areas from potential solder wicking.

7. Contamination resistant design

When mated, the connector's design covers the contacts which help to keep dust and other debris away from the contacts. The SMT leads are kept very close to the connector housing which also helps to prevent shorts caused by debris on the exposed contacts.

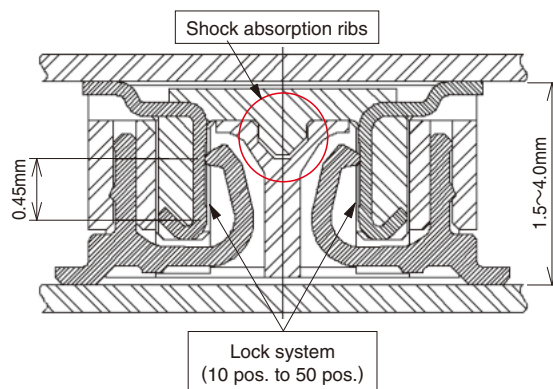
8. RoHS compliant

Environment friendly and does not use RoHS specified prohibited materials.
All materials and substances used to produce these parts comply with the RoHS standards.

9. High speed signal with noise prevention

The shielded type can support high speed signal transmissions with noise prevention.

High contact reliability - effective mating length 0.45mm



Stacking height variations

Standard type

Stacking height	1.5 mm	2.0 mm	2.5 mm	3.0 mm	3.5 mm	4.0 mm
No. of Contacts						
10	○	—	○	—	—	—
12	○	○	—	—	—	—
20	○	○	○	—	○	—
24	○	○	—	—	—	—
30	○	○	○	○	○	—
34	○	—	—	—	—	—
40	○	○	○	○	○	—
44	—	○	—	○	—	—
50	○	○	○	○	○	○
60	○	○	○	○	○	○
70	○	○	—	○	—	—
80	○	○	—	○	○	○
90	○	—	—	○	—	○
100	○	—	—	○	—	—

Shielded type

Stacking height	1.5 mm	3.0 mm
No. of Contacts		
30	○	—
48	○	○
70	—	○

Product Specifications

Ratings	Rated Current 0.3A	Operating Temperature Range -35 to +85°C (Note 1)	Storage Temperature Range -10 to +60°C (Note 2)
	Rated Voltage AC, DC 30V	Operating Humidity Range 20 to 80%	Storage Humidity Range 40 to 70% (Note 2)

Items	Specifications	Conditions
1. Insulation Resistance	50MΩ min	Measured with DC 100V
2. Withstanding Voltage	No flashover or breakdown	Apply AC 100V for 1 minute
3. Contact Resistance	90mΩ max	Measured with AC 20mV, 1 kHz and 1mA
4. Vibration Resistance	No electrical discontinuity of 1μs or greater	Frequency 10-55 Hz, half amplitude 0.75mm, 3 directions for 2 hours
5. Humidity Resistance	Contact resistance : 90mΩ max Insulation resistance : 25mΩ min	Left at temperature 40 ± 2°C, humidity 90 to 95%, 96 hours
6. Temperature Cycles	Contact resistance : 90mΩ max Insulation resistance : 50mΩ min	(-55°C : 30 minutes → 5~35°C : 10 minutes → 85°C : 30 minutes → 5~35°C : 10 minutes) 5 cycles
7. Durability	Contact resistance : 90mΩ max	30 mating cycles
8. Soldering Heat Resistance	Should be no melting of resin parts that affects its performance	Reflow : according to the Recommended Temperature Profile Hand solder : Soldering iron temperature 350°C, no more than 3 seconds.

Note 1 : Includes temperature rise caused by current flow.

Note 2 : The term "storage" here refers to products stored for a long period prior to board mounting and use. The operating temperature and humidity range covers the non-energized condition of connectors after board mounting and the temporary storage conditions during transportation, etc.

Materials (Standard, non shielded type) / Finish

Product	Component	Materials	Finish	UL Regulation
Receptacle	Insulator	LCP	Black	UL94V-0
	Contact	Phosphor bronze	Gold plating	_____
Header	Insulator	LCP	Black	UL94V-0
	Contact	Phosphor bronze	Gold plating	_____

Materials (Shielded type) / Finish

Product	Component	Materials	Finish	UL Regulation
Receptacle	Insulator	LCP	Black	UL94V-0
	Contact	Phosphor bronze	Gold plating	_____
	Shield plate			_____
Header	Insulator	LCP	Black	UL94V-0
	Contact	Phosphor bronze	Gold plating	_____
	Reinforcing metal fitting			_____

Product Number Structure (Standard, non-shielded type)

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

●Receptacle

DF40 **#** **-** **(**)** **-** ***** **DS** **-** **0.4** **V** **(**)**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series Name: DF40	③ Stacking height	④ No. of Contacts
② Style B : With reinforcing metal fitting HB : With reinforcing metal fitting (The H denotes a stacking height 2.5mm or above) C : Without reinforcing metal fitting HC : Without reinforcing metal fitting (The H denotes a stacking height 2.5mm or above)		
	Display	Stacking height
	None	1.5mm
	2.0	2.0mm
	2.5	2.5mm
	3.0	3.0mm
	3.5	3.5mm
	4.0	4.0mm
	⑤ Connector Type DS : Double row receptacle	
	⑥ Contact Pitch : 0.4mm	
	⑦ Mating direction Shape V : Vertical SMT	
	⑧ Packaging Type (51) Embossed tape packaging	

●Header

DF40 **#** **-** ***** **DP** **-** **0.4** **V** **(**)**

① ② ③ ④ ⑤ ⑥ ⑦

① Series Name : DF40	③ No. of Contacts	⑤ Contact Pitch : 0.4mm
② Style C : Without reinforcing metal fitting	④ Connector Type DP : Double row pin header	⑥ Mating direction V : Vertical SMT
		⑦ Packaging Type (51) Embossed tape packaging

Shielded type

●Receptacle

DF40 **GB** **-** **(**)** **-** ***** **DS** **-** **0.4** **V** **(**)**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series Name : DF40	③ Stacking height	⑤ Connector Type DS : Double row receptacle
② Style GB : With shield		
	Display	Stacking height
	1.5	1.5mm
	3.0	3.0mm
	④ No. of Contacts	
	⑥ Contact Pitch : 0.4mm	
	⑦ Mating direction V : Vertical SMT	
	⑧ Packaging Type (51) Embossed tape packaging	

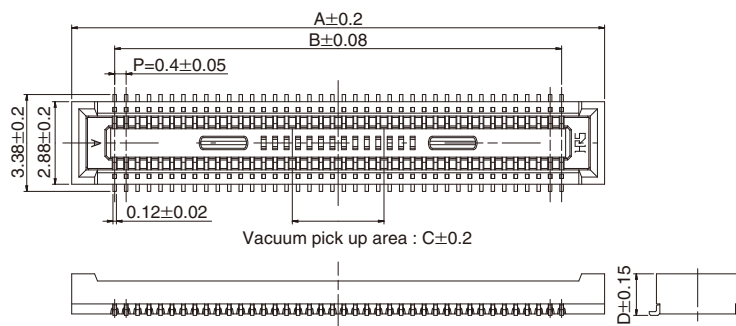
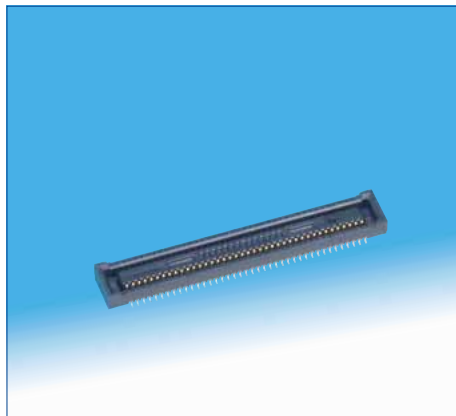
●Header

DF40 **GB** **-** ***** **DP** **-** **0.4** **V** **(**)**

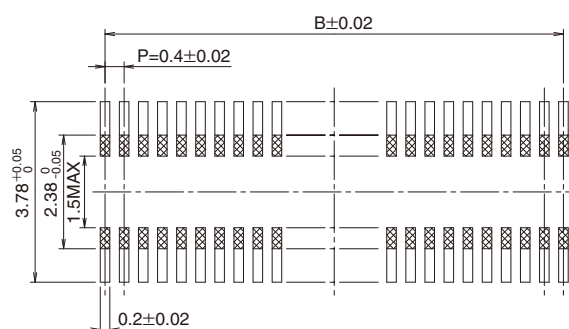
① ② ③ ④ ⑤ ⑥ ⑦

① Series Name : DF40	③ No. of Contacts	⑤ Contact Pitch : 0.4mm
② Style GB : With reinforcing metal fitting (For use with shielded product)	④ Connector Type DP : Double row pin header	⑥ Mating direction V : Vertical SMT
		⑦ Packaging Type (51) Embossed tape packaging

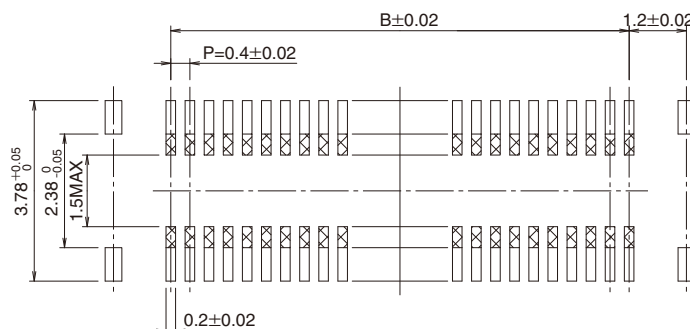
■ Receptacle (Stacking height 1.5mm)



◆ Recommended PCB layout



DF40C(Without reinforcing metal fitting)



DF40B(With reinforcing metal fitting)

■ Stacking height 1.5mm

【Specification No.】

(51) : Embossed package 5,000 pcs/reel

Unit : mm

Part No.	HRS No.	No. of Contacts	A	B	C	D
DF40B-10DS-0.4V(51)	684-4038-8 51	10	4.6	1.6	1.0	1.45
DF40B-12DS-0.4V(51)	684-4152-3 51	12	5.0	2.0	1.0	
DF40B-30DS-0.4V(51)	684-4090-8 51	30	8.6	5.6	1.5	
DF40B-50DS-0.4V(51)	684-4018-0 51	50	12.6	9.6	3.2	
DF40B-60DS-0.4V(51)	684-4049-4 51	60	14.6	11.6	3.2	
DF40B-80DS-0.4V(51)	684-4052-9 51	80	18.6	15.6	3.2	
DF40C-20DS-0.4V(51)	684-4005-9 51	20	6.6	3.6	1.0	
DF40C-24DS-0.4V(51)	684-4006-1 51	24	7.4	4.4	1.2	
DF40C-30DS-0.4V(51)	684-4007-4 51	30	8.6	5.6	1.5	
DF40C-34DS-0.4V(51)	684-4023-0 51	34	9.4	6.4	2.3	
DF40C-40DS-0.4V(51)	684-4008-7 51	40	10.6	7.6	3.2	
DF40C-50DS-0.4V(51)	684-4009-0 51	50	12.6	9.6	3.2	
DF40C-60DS-0.4V(51)	684-4004-6 51	60	14.6	11.6	3.2	
DF40C-70DS-0.4V(51)	684-4016-5 51	70	16.6	13.6	3.2	
DF40C-80DS-0.4V(51)	684-4002-0 51	80	18.6	15.6	3.2	
DF40C-90DS-0.4V(51)	684-4124-8 51	90	20.6	17.6	3.2	
DF40C-100DS-0.4V(51)	684-4033-4 51	100	22.6	19.6	3.2	

Note 1 : Please place orders by full reel.

Note 2 : The surface of the 60 to 100 pos. parts have a small, concave section that will not affect the vacuum pick up operation.

Note 3 :  Resist coating area.

Note 4 : This connector is NOT polarized.

[Product Information]

Ver.1.1

IMX334LLR

Diagonal 8.86 mm (Type 1/1.8) CMOS Solid-state Image Sensor with Square Pixel for Monochrome Cameras

Description

The IMX334LLR is a diagonal 8.86 mm (Type 1/1.8) CMOS active pixel type solid-state image sensor with a square pixel array and 8.42 M effective pixels. This chip operates with analog 2.9 V, digital 1.2 V, and interface 1.8 V triple power supply, and has low power consumption. High sensitivity, low dark current and no smear are achieved. This chip features an electronic shutter with variable charge-integration time.

(Applications: Surveillance cameras, FA cameras, Industrial cameras)

Features

- ◆ CMOS active pixel type dots
- ◆ Built-in timing adjustment circuit, H/V driver and serial communication circuit
- ◆ Input frequency: 6 to 27 MHz / 37.125 MHz / 74.25 MHz
- ◆ Number of recommended recording pixels: 3840 (H) × 2160 (V) approx. 8.29 M pixels
- ◆ Readout mode
 - All-pixel scan mode
 - Window cropping mode
 - Vertical / Horizontal direction-normal / inverted readout mode
- ◆ Readout rate
 - Maximum frame rate in All-pixel scan mode 3840(H) × 2160(V) A/D 12-bit: 60 frame/s
- ◆ High dynamic range (HDR) function
 - Multiple exposure HDR
 - Digital overlap HDR
- ◆ Variable-speed shutter function (resolution 1H units)
- ◆ 10-bit / 12-bit A/D converter
- ◆ CDS / PGA function
 - 0 dB to 30 dB : Analog Gain 30 dB (step pitch 0.3 dB)
 - 30.3 dB to 72 dB : Analog Gain 30 dB + Digital Gain 0.3 to 42 dB (step pitch 0.3 dB)
- ◆ Supports I/O
 - CSI-2 serial data output (4 Lane / 8 Lane, RAW10 / RAW12 output)
- ◆ Recommended exit pupil distance: -100 mm to $-\infty$

STARVIS

* STARVIS is a trademark of Sony Corporation. The STARVIS is back-illuminated pixel technology used in CMOS image sensors for surveillance camera applications. It features a sensitivity of 2000 mV or more per $1 \mu\text{m}^2$ (color product, when imaging with a 706 cd/m² light source, F5.6 in 1 s accumulation equivalent), and realizes high picture quality in the visible-light and near infrared light regions.

Sony reserves the right to change products and specifications without prior notice.

Sony logo is a registered trademark of Sony Corporation.

Device Structure

◆ CMOS image sensor	
◆ Image size	Type 1/1.8
◆ Total number of pixels	3952 (H) × 2320 (V) approx. 9.17 M pixels
◆ Number of effective pixels	3864 (H) × 2180 (V) approx. 8.42 M pixels
◆ Number of active pixels	3864 (H) × 2176 (V) approx. 8.41 M pixels
◆ Number of recommended recording pixels	3840 (H) × 2160 (V) approx. 8.29 M pixels
◆ Unit cell size	2.0 μm (H) × 2.0 μm (V)
◆ Optical black	Horizontal (H) direction: Front 0 pixel, rear 0 pixel Vertical (V) direction: Front 13 pixels, rear 0 pixel
◆ Dummy	Horizontal (H) direction: Front 0 pixel, rear 0 pixel Vertical (V) direction: Front 0 pixel, rear 0 pixel
◆ Package	128 pin LGA

Image Sensor Characteristics

(T_j = 60 °C)

Item		Value	Remarks
Sensitivity (F8)	Typ.	1961 Digit	1/30 s accumulation 12 bit converted value
Saturation signal	Min.	3895 Digit	12 bit converted value

Basic Drive Mode

Drive mode	Recommended number of recording pixels	Maximum frame rate [frame/s]	Output interface	ADC [bit]
All pixel	3840 (H) × 2160 (V) approx. 8.29 M pixels	60	CSI-2	10/12

[Product Information]

Ver.1.2

IMX334LQR

Diagonal 8.86 mm (Type 1/1.8) CMOS Solid-state Image Sensor with Square Pixel for Color Cameras

Description

The IMX334LQR is a diagonal 8.86 mm (Type 1/1.8) CMOS active pixel type solid-state image sensor with a square pixel array and 8.42 M effective pixels. This chip operates with analog 2.9 V, digital 1.2 V, and interface 1.8 V triple power supply, and has low power consumption. High sensitivity, low dark current and no smear are achieved through the adoption of R, G and B primary color mosaic filters. This chip features an electronic shutter with variable charge-integration time.

(Applications: Surveillance cameras, FA cameras, Industrial cameras)

Features

- ◆ CMOS active pixel type dots
- ◆ Built-in timing adjustment circuit, H/V driver and serial communication circuit
- ◆ Input frequency: 6 to 27 MHz / 37.125 MHz / 74.25 MHz
- ◆ Number of recommended recording pixels: 3840 (H) × 2160 (V) approx. 8.29 M pixels
- ◆ Readout mode
 - All-pixel scan mode
 - Horizontal/Vertical 2/2-line binning mode
 - Window cropping mode
 - Vertical / Horizontal direction-normal / inverted readout mode
- ◆ Readout rate
 - Maximum frame rate in All-pixel scan mode 3840(H) × 2160(V) A/D 12-bit: 60 frame/s
- ◆ High dynamic range (HDR) function
 - Multiple exposure HDR
 - Digital overlap HDR
- ◆ Variable-speed shutter function (resolution 1H units)
- ◆ 10-bit / 12-bit A/D converter
- ◆ CDS / PGA function
 - 0 dB to 30 dB : Analog Gain 30 dB (step pitch 0.3 dB)
 - 30.3 dB to 72 dB : Analog Gain 30 dB + Digital Gain 0.3 to 42 dB (step pitch 0.3 dB)
- ◆ Supports I/O
 - CSI-2 serial data output (4 Lane / 8 Lane, RAW10 / RAW12 output)
- ◆ Recommended exit pupil distance: -30 mm to $-\infty$

STARVIS

* STARVIS is a trademark of Sony Corporation. The STARVIS is back-illuminated pixel technology used in CMOS image sensors for surveillance camera applications. It features a sensitivity of 2000 mV or more per $1 \mu\text{m}^2$ (color product, when imaging with a 706 cd/m² light source, F5.6 in 1 s accumulation equivalent), and realizes high picture quality in the visible-light and near infrared light regions.

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Device Structure

◆ CMOS image sensor	
◆ Image size	Type 1/1.8
◆ Total number of pixels	3952 (H) × 2320 (V) approx. 9.17 M pixels
◆ Number of effective pixels	3864 (H) × 2180 (V) approx. 8.42 M pixels
◆ Number of active pixels	3864 (H) × 2176 (V) approx. 8.41 M pixels
◆ Number of recommended recording pixels	3840 (H) × 2160 (V) approx. 8.29 M pixels
◆ Unit cell size	2.0 μm (H) × 2.0 μm (V)
◆ Optical black	Horizontal (H) direction: Front 0 pixel, rear 0 pixel Vertical (V) direction: Front 13 pixels, rear 0 pixel
◆ Dummy	Horizontal (H) direction: Front 0 pixel, rear 0 pixel Vertical (V) direction: Front 0 pixel, rear 0 pixel
◆ Package	128 pin LGA

Image Sensor Characteristics

(T_j = 60 °C)

Item		Value	Remarks
Sensitivity (F5.6)	Typ.	2200 Digit	1/30 s accumulation 12 bit converted value
Saturation signal	Min.	3895 Digit	12 bit converted value

Basic Drive Mode

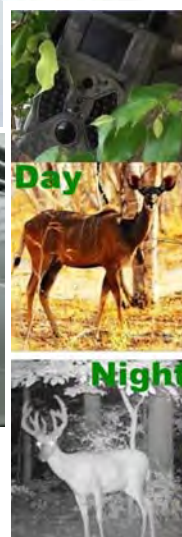
Drive mode	Recommended number of recording pixels	Maximum frame rate [frame/s]	Output interface	ADC [bit]
All pixel	3840 (H) × 2160 (V) approx. 8.29 M pixels	60	CSI-2	10/12
Horizontal/ Vertical 2/2-line binning	1920 (H) × 1080 (V) approx. 2.07 M pixels	120	CSI-2	10



Cameras Applications



IMAGING DEVICES





Camera Reliability Test

Reliability Inspection Item			Testing Method	Acceptance Criteria
Category		Item		
Environmental	Storage Temperature	High 60°C 96 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 96 Hours	Temperature Chamber	No Abnormal Situation
	Operation Temperature	High 60°C 24 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 24 Hours	Temperature Chamber	No Abnormal Situation
	Humidity	60°C 80% 24 Hours	Temperature Chamber	No Abnormal Situation
	Thermal Shock	High 60°C 0.5 Hours Low -20°C 0.5 Hours Cycling in 24 Hours	Temperature Chamber	No Abnormal Situation
Physical	Drop Test (Free Falling)	Without Package 60cm	10 Times on Wood Floor	Electrically Functional
		With Package 60cm	10 Times on Wood Floor	Electrically Functional
	Vibration Test	50Hz X-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Y-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Z-Axis 2mm 30min	Vibration Table	Electrically Functional
	Cable Tensile Strength Test	Loading Weight 4 kg 60 Seconds Cycling in 24 Hours	Tensile Testing Machine	Electrically Functional
Electrical	ESD Test	Contact Discharge 2 KV	ESD Testing Machine	Electrically Functional
		Air Discharge 4 KV	ESD Testing Machine	Electrically Functional
	Aging Test	On/Off 30 Seconds Cycling in 24 Hours	Power Switch	Electrically Functional
	USB Connector	On/Off 250 Times	Plug and Unplug	Electrically Functional





Camera Inspection Standard

Inspection Item		Inspection Method	Standard of Inspection
Category	Item		
Appearance	FPC/ PCB	Color	Major Difference is Not Allowed.
		Be Torn/Chopped	Copper Crack Exposure is Not Allowed.
		Marking	Clear, Recognizable (Within 30cm Distance)
	Holder	Scratches	The Inside Crack Exposure is Not Allowed
		Gap	Meet the Height Standard
		Screw	Make Sure Screws Are Presented (If Any)
		Damage	The Inside Crack Exposure is Not Allowed
	Lens	Scratch	No Effect On Resolution Standard
		Contamination	No Effect On Resolution Standard
		Oil Film	No Effect On Resolution Standard
		Cover Tape	No Issue On Appearance.
Function	Image	No Communication	Test Board Not Allowed
		Bright Pixel	Black Board Not Allowed In the Image Center
		Dark Pixel	White board Not Allowed In the Image Center
		Blurry	The Naked Eye Not Allowed
		No Image	The Naked Eye Not Allowed
		Vertical Line	The Naked Eye Not Allowed
		Horizontal Line	The Naked Eye Not Allowed
		Light Leakage	The Naked Eye Not Allowed
		Blinking Image	The Naked Eye Not Allowed
		Bruise	Inspection Jig Not Allowed
		Resolution	Chart Follows Outgoing Inspection Chart Standard
		Color	The Naked Eye No Issue
		Noise	The Naked Eye Not Allowed
		Corner Dark	The Naked Eye Less Than 100px By 100px
		Color Resolution	The Naked Eye No Issue
Dimension		Height	The Naked Eye Follows Approval Data Sheet
		Width	The Naked Eye Follows Approval Data Sheet
		Length	The Naked Eye Follows Approval Data Sheet
		Overall	The Naked Eye Follows Approval Data Sheet

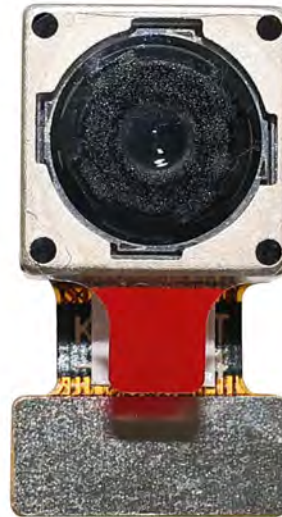


HAMPO Package Solutions

Hampo Camera Module



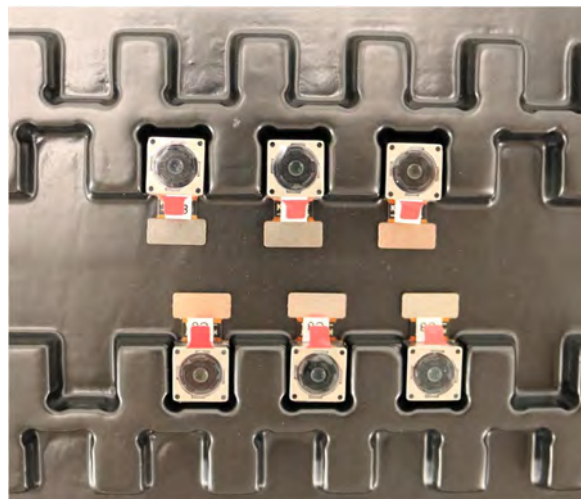
Complete with Lens Protection Film



Tray with Grid and Space



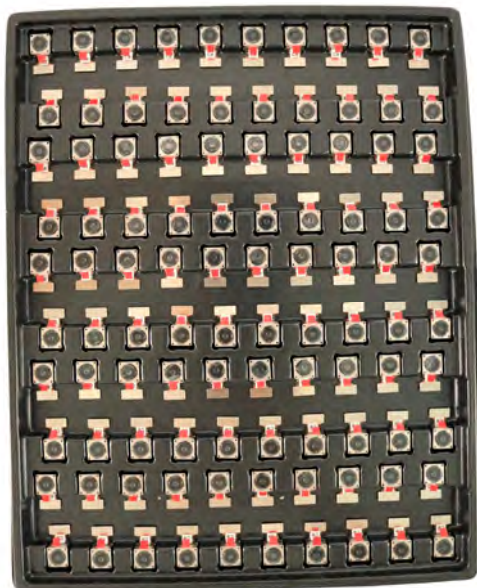
Place Cameras on the Tray



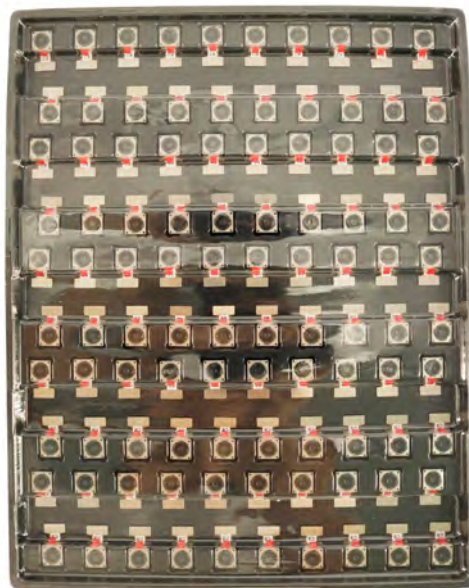


Camera Modules Package Solution

Full Tray of Cameras



Cover Tray with Lid



Place Tray into Anti-Static Bag



Vacuum the Anti-Static Bag





Camera Modules Package Solution

Sealed Vacuum Anti-Static Bag with Labels

1. Model and Description 2. Quantity 3. Manufacturing Date Code 4. Caution





Large Order Package Solution

Place Foam Sheets Between Tray Bags



Foam Sheets are Larger Than Trays



Place Foam Sheets and Trays into Box



Foam Sheets are Tightly Fitting in Box



Seal the Carbon Box



Label the Carbon Shipping Box





An open cardboard box is shown from a top-down perspective. The box is filled with a stack of white, rectangular items, likely papers or documents. Several clear plastic bags are visible, tucked between the white items, suggesting they are used for protection or separation. The box is open, with the lid visible at the top.

An open, empty cardboard box with a white interior lining. The box is shown from a top-down perspective, with the lid flaps open and folded outwards. The interior is lined with a white material, and the box is set against a plain white background.




HAMPO Model No. HAMPO M8412 (M8412R-V1 R) 8528W, 859P Interface Auto Focus, 70-8 Degree MADE IN CHINA	Tray 1 of 1 300 PIECES Production Date 20 August 2022 Date Code 2234 (Week 34, 2022)
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Sample Order and Connector Package Solution

Place Camera Sample into Anti-Static Bag



Place Connectors into Anti-Static Bag



Label the Sample Bags



Place Connectors into Reel



Place Samples into the Carbon Box



Place Connectors into the Carbon Box



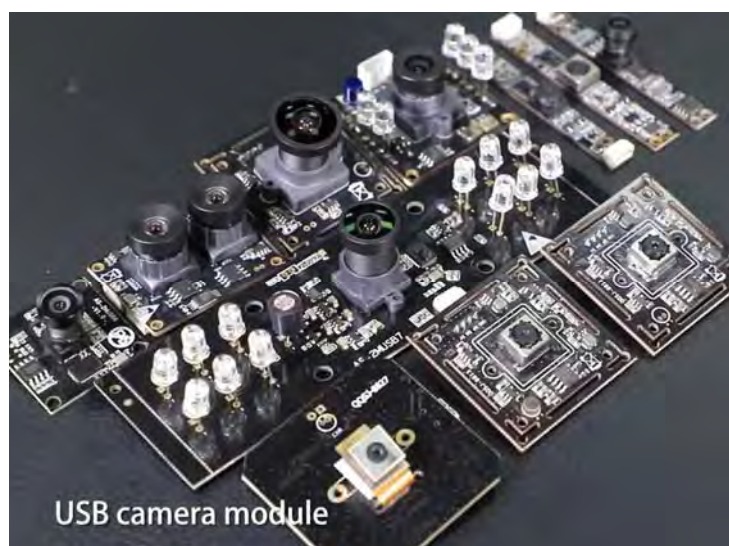


Company HAMPO

Dongguan Hampo Electronic Technology Co., Ltd. was established in 2015, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. Hampo is occupying 150,000 square feet automated plants with 500 employees of annual throughput 180,000,000 units cameras.

Hampo provides OEM, ODM design, contract manufacturing, and builds the camera products. You may provide the requirements to us, even with a hand draft, our sales and engineering work together to meet your needs. We consider ourselves your last-term partner in developing practical and innovative solutions.

Our team covers everything from initial concept development to mass produced product. Hampo specializes in customized camera design, raw material, electronic engineering, firmware/software development, product testing, and packing design. Our experienced strategic supply systems offer a robust and dependable manufacturing capacity for orders of various sizes.



Limited Warranty

Hampo provides the following limited warranty if you purchased the Product(s) directly from Hampo company or from Hampo's website, www.hampotech.com. Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. Hampo guarantees that the Product(s) will be free from defects in materials and workmanship under normal use for a period of one (1) year from the date you receive the product ("Warranty Period").

For all Product(s) that contain or develop material defects in materials or workmanship during the Warranty Period, Hampo will, at its sole option, either: (i) repair the Product(s); (ii) replace the Product(s) with a new or refurbished Product(s) (replacement Product(s) being of identical model or functional equivalent); or (iii) provide you a refund of the price you paid for the Product(s).

This Limited Warranty of Hampo is solely limited to repair and/or replacement on the terms set forth above. Hampo is not reliable or responsible for any subsequent events.





Hampo Strength

Powerful Factory



Professional Service



Promised Delivery

