



Innovation for Innovators

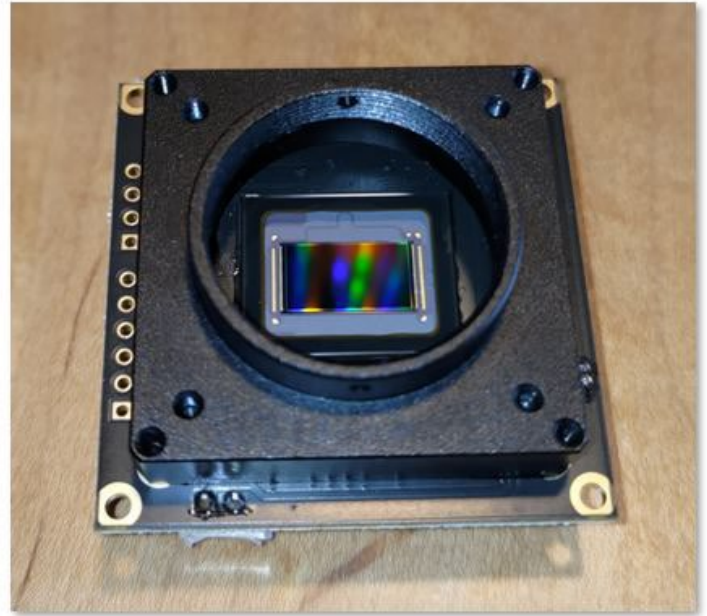
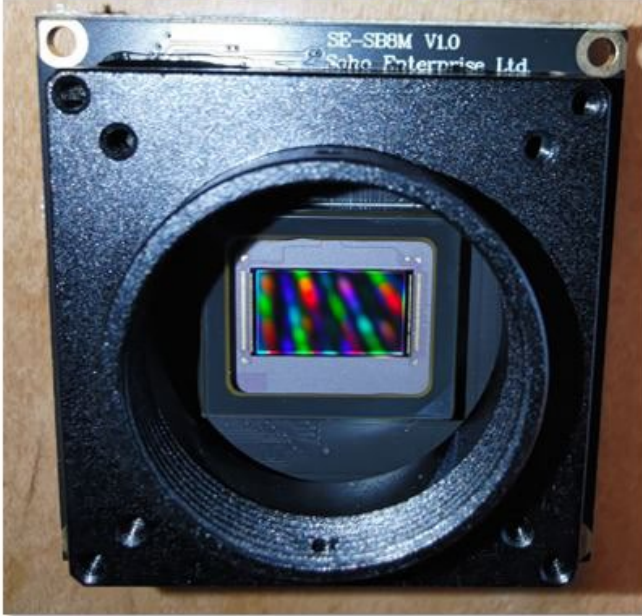


SE-SB8M-IMX585

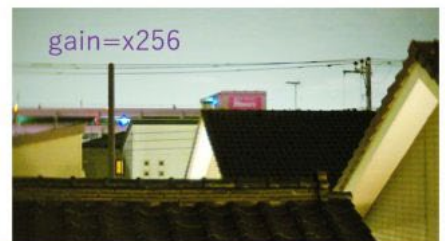
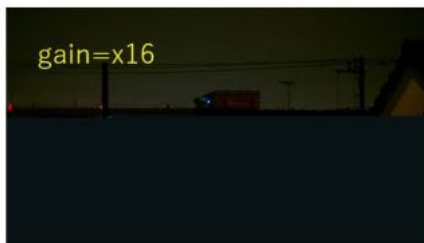
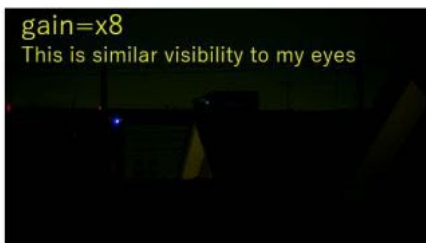
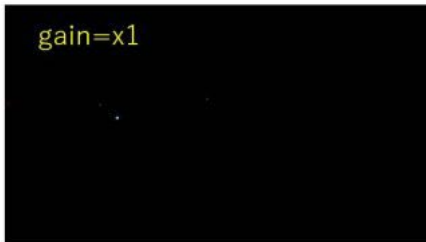
Soho Enterprise Ltd.

High Sensitivity Camera Board w/ Sony IMX585(STARVIS2)

SE-SB8M-IMX585



IMX585 8Mpix 2.9um STARVIS2, 25fps, Exposure=40msec



Captured and developed by libcamera on RPi4

Standard CS mount board

22 PIN 连接器

No	Name
1	VCC 3.3V (NC)
2	SDA
3	SCL
4	GND
5	TRIGGER
6	ENABLE_C
7	GND
8	MDP3
9	MDN3
10	GND
11	MDP2
12	MDN2
13	GND
14	MCP
15	MCN
16	GND
17	MDP1
18	MDN1
19	GND
20	MDP0
21	MDN0
22	GND

6 PIN IR-CUT

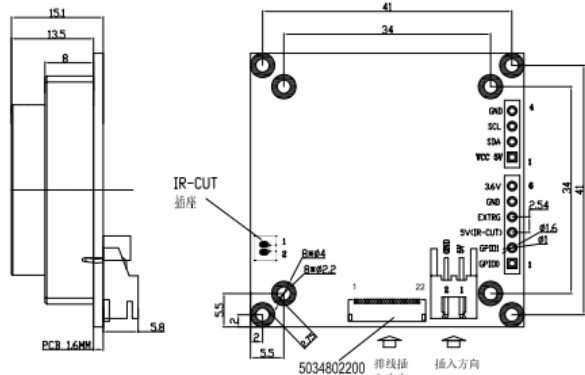
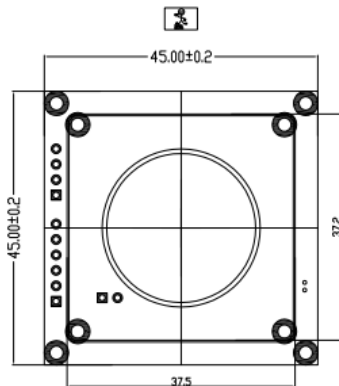
No	Name
1	GP100 (IR-CUT)
2	GP101 (IR-CUT)
3	VCC 5V (IR-CUT)
4	EXTRG
5	GND
6	3.6V

2 PIN

No	Name
1	VCC 5V
2	GND

4 PIN 镜头驱动板

No	Name
1	VCC 5V
2	SDA
3	SCL
4	GND



*No IRCF inside the CS lens holder

03	Image sensor	IMX585
04	Image size	1/1.2"
05	Active pixels	3840*2160
06	Core supply	1.2V
07	I/O supply	1.8V
08	AVDD supply	3.3V

11	Lens type	
12	Lens construction	
13	Lens EFL	
14	Lens F/NO	
15	Lens FOV: D/H/V	
16	Lens distortion	

3rd ANGLE

UNLESS OTHERWISE SPECIFIED
GENERAL TOLERANCE:

LEVEL	A	B	C	D
DIM <3	±0.03	±0.03	±0.1	±0.15
>3-50	±0.05	±0.05	±0.1	±0.15
>50-100	±0.05	±0.08	±0.15	±0.2
>100	±0.08	±0.1	±0.2	±0.3
ANGULAR	±0.5°	±0.5°	±0.8°	±1°

TITLE : VFIM1789-AIKSE-SB8M-IMX585 V1.0) Model	DWG NO. :
MODEL :	DRAWN :
PART NO. :	CHECKED :
MATERIAL :	APPROVED :
FINISHED :	
UNIT: MM	SIZE: A4
SCALE: 1:1	REV. 001



*IRCF inside the CS lens holder

YT10136

NO.	项目 (Items)	具体规格 (Specification)
1	F No.	1.0±10%
2	焦距 (Focal Length)	11.7±5%
3	光学后焦 (Optical Back Focal Length)	5.18±0.1 (in air)
4	机械后焦 (Mechanical Back Focal Length)	4.01±0.2 (in air)
5	镜头总长 (ITL)	51.8±0.2 (in air)
6	像面大小 (Image circle)	Φ13.2 (MAX)
7	镜片构成 (Lens structure)	5G4P
8	接口 (Mount)	M22*P0.5
9	镜头与底座螺钉配合扭力 (Clamp Force)	550-1300gf.cm
10	视场角 (FOV)	sensor型号 H(水平) V(垂直) D(对角)
11	光学畸变 (Optical Distortion)	1/1.2" (11.136*6.264*12.777) 54.7° 30.7° 63°
12	TV畸变 (TV Distortion)	1/1.2" (16: 9) -10.6%
13	相对亮度 (Relative Illumination)	1/1.2" (16: 9) -4.0%
14	最大主光线夹角 (CRA)	1/1.2" (16: 9) 45.0%
15	近摄距 (M.O.D)	14"
16	分辨率 (Resolution)	4.0m
17	建议芯片封装倾斜规格 (III tolerance of sensor packaging)	分辨率 (Resolution): 3840*2160 (8MP)
18	重量 (Weight)	≤3'
19	操作方法 (Operation)	聚焦 (Focus) 手动 (Manual)
20	环保及安全 (HSF&Safety)	光圈 (Iris) 固定 (Fixed) RoHS

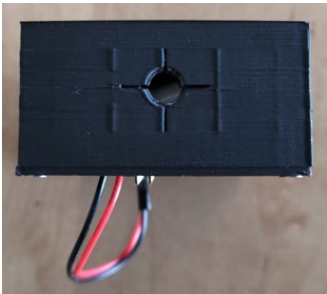
YT10138

NO.	项目 (Items)	具体规格 (Specification)
1	F No.	1.0±10%
2	焦距 (Focal Length)	7.68±5%
3	光学后焦 (Optical Back Focal Length)	6.54±0.2 (in air)
4	机械后焦 (Mechanical Back Focal Length)	4.43±0.2 (in air)
5	镜头总长 (ITL)	51.8±0.2 (in air)
6	像面大小 (Image circle)	Φ13.1 (MAX)
7	镜片构成 (Lens structure)	5G4P
8	接口 (Mount)	M22*P0.5
9	镜头与底座螺钉配合扭力 (Clamp Force)	550-1300gf.cm
10	视场角 (FOV)	sensor型号 H(水平) V(垂直) D(对角)
11	光学畸变 (Optical Distortion)	1/1.2" 11.136*6.264*12.777 88.0° 47.5° 103.5°
12	TV畸变 (TV Distortion)	-3.4%
13	相对亮度 (Relative Illumination)	-11.20%
14	最大主光线夹角 (CRA)	40.30%
15	近摄距 (M.O.D)	12.1"
16	分辨率 (Resolution)	4m
17	建议芯片封装倾斜规格 (III tolerance of sensor packaging)	分辨率 (Resolution): 3840*2160 (8MP)
18	重量 (Weight)	≤3'
19	操作方法 (Operation)	聚焦 (Focus) 手动 (Manual)
20	环保及安全 (HSF&Safety)	光圈 (Iris) 固定 (Fixed) RoHS

YT10140

NO.	项目 (Items)	具体规格 (Specification)
1	F No.	1.0±10%
2	焦距 (Focal Length)	6.93±5%
3	光学后焦 (Optical Back Focal Length)	5.10±0.2 (in air)
4	机械后焦 (Mechanical Back Focal Length)	4.13±0.2 (in air)
5	镜头总长 (ITL)	51.8±0.2 (in air)
6	像面大小 (Image circle)	Φ13.2 (MAX)
7	镜片构成 (Lens structure)	5G4P
8	接口 (Mount)	M22*P0.5
9	镜头与底座螺钉配合扭力 (Clamp Force)	550-1300gf.cm
10	视场角 (FOV)	sensor型号 H(水平) V(垂直) D(对角)
11	光学畸变 (Optical Distortion)	1/1.2" 11.136*6.264*12.777 102.1° 52.9° 125.3°
12	TV畸变 (TV Distortion)	-52.0%
13	相对亮度 (Relative Illumination)	-15.9%
14	最大主光线夹角 (CRA)	44%
15	近摄距 (M.O.D)	10.0"
16	分辨率 (Resolution)	5m
17	建议芯片封装倾斜规格 (III tolerance of sensor packaging)	分辨率 (Resolution): 3840*2160 (8MP)
18	重量 (Weight)	≤3'
19	操作方法 (Operation)	聚焦 (Focus) 手动 (Manual)
20	环保及安全 (HSF&Safety)	光圈 (Iris) 固定 (Fixed) RoHS

SE-SB8M-IMX585 RPi Zero 2W Housing Kit



Innovation for Innovators



SONY

Ver.1.0

IMX585-AAQJ1

Diagonal 12.84 mm (Type 1/1.2) CMOS Solid-state Image Sensor with Square Pixel for Color Cameras

Description

The IMX585-AAQJ1 is a diagonal 12.84 mm (Type 1/1.2) CMOS active pixel type solid-state image sensor with a square pixel array and 8.40 M effective pixels. This chip operates with analog 3.3 V, digital 1.1 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: Security cameras)

Features

- ◆ CMOS active pixel type dots
- ◆ Built-in timing adjustment circuit, H/V driver and serial communication circuit
- ◆ Input frequency: 24 MHz / 27 MHz / 37.125 MHz / 72 MHz / 74.25 MHz
- ◆ Number of recommended recording pixels: 3840 (H) × 2160 (V) approx. 8.29M pixel
- ◆ Readout mode
 - All-pixel scan mode
 - Horizontal / Vertical 2/2-line binning mode
 - Window cropping mode
 - Horizontal / Vertical direction - Normal / Inverted readout mode
- ◆ Readout rate
 - Maximum frame rate in All-pixel scan mode: 12 bit: 60 frame/s, 10 bit: 90 frame/s
- ◆ High dynamic range (HDR) function
 - Digital overlap HDR
 - Clear HDR
- ◆ Synchronizing sensors function
- ◆ Variable-speed shutter function (resolution 2H 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 dB to 42 dB (step pitch 0.3 dB)
- ◆ Supports I/O
 - CSI-2 serial data output (2 Lane / 4 Lane / 8Lane / 4Lane × 2ch)
 - RAW10 / RAW12 / RAW16 (Clear HDR) output

Price List

Product	Price	Note
SE-SB8M-IMX585Q V1.0	US\$150	RGB, CS-Mount
SE-SB8M-IMX585Q-M22 V1.0	US\$150	RGB, M22 lens mount
SE-SB8M-IMX585Q V2.0	US\$200	RGB, CS-Mount
SE-SB8M-IMX585M V2.0	US\$300	MONO, CS-Mount
SE-SB8M-IMX585Q-M22 V2.0	US\$200	RGB, M22 lens mount
SE-SB8M-IMX585M-M22 V2.0	US\$300	MONO, M22 lens mount
M22 Lens YT10136	US\$80	FNO=1.0 H:55, V:31, D:63
M22 Lens YT10138	US\$80	FNO=1.0 H:88, V:48, D:104
M22 Lens YT10140	US\$80	FNO=1.0 H:102, V:53, D:125

* V2.0 FFC connector type is changed.