

Product Acknowledgment

Customer's Model Name: F3M

Union Image Model Name: ZY-XSF3M2640B-V1.0

Code: _____

Sample Quantity: 3PCS

Date: 2021-10-13

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1 (Scope)

ZY-XSF3M2640B-V1.0

This approval sheet contains the general information of ZY-XSF3M2640B-V1.0 camera module designed by Union Image CO., LTD. It contains the key features of the module as well as the information for the quality inspection and reliability test purposes.

2. (Application)

- ◆ (Mobile Phone Camera)
- ◆ (Tablet Camera)
- ◆ PSP (Notebook Camera)
- ◆ PC Camera)
- ◆ (Web Camera)
- ◆ (Toys)

3. (Camera module specification)

Item	Specification
Customer's Model Name	F3MB
Zhuoying Model Name	ZY-XSF3M2640B-V1.0
Substrate	FPC
Module size	20.5*12.5*5.54mm

Sensor		OV2640
Array Element		1600*1200
Pixel Size		2.2 μ m × 2.2 μ m
Power Supply	AVDD	2.5V ~ 3.0V
	DVDD	1.3VDC + 5%
	I/O	1.7V to 3.3V
Temperature Range	Operation	0°C ~ 50°C
	Store	-10°C ~ 60°C
Max Frame rate		UXGA/SXGA 15 fps SVGA 30 fps CIF 60 fps
Output Formats		• YUV(422/420)/YCbCr422 • RGB565/555 • 8-bit compressed data • 8-/10-bit Raw RGB data
Power consumption		125 mW (for 15 fps, UXGA YUV mode) 140 mW (for 15 fps, UXGA compressed mode)
Package type		CSP

4. (Camera LENS specification)

Item	Specification
Lens size	1/4"
Lens Construction	4P+1R

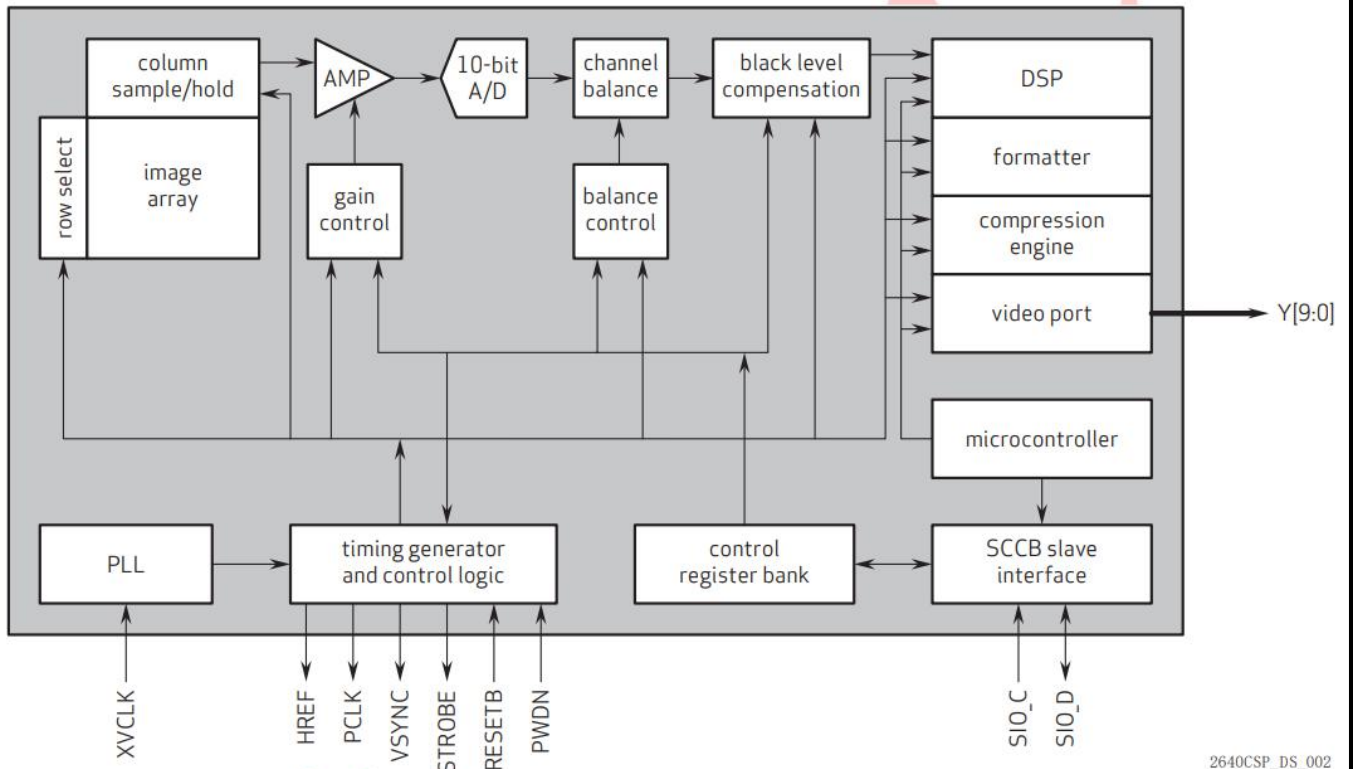
F/No	2.8 ± 5%
EFL	3.29mm
Optical FOV	68.7°

5. (Camera Electrical Specification)

Key Specifications

Array Size	UXGA	1600 x 1200
Power Supply	Core	1.3VDC ± 5%
	Analog	2.5 ~ 3.0VDC
	I/O	1.7V to 3.3V
Power Requirements	Active	125 mW (for 15 fps, UXGA YUV mode)
		140 mW (for 15 fps, UXGA compressed mode)
	Standby	900 µA
Temperature Range	Stable Image	0°C to 50°C
Output Formats (8-bit)		<ul style="list-style-type: none"> • YUV(422/420)/YCbCr422 • RGB565/555 • 8-bit compressed data • 8-/10-bit Raw RGB data
Lens Size		1/4"
Chief Ray Angle		25° non-linear
Maximum Image Transfer Rate	UXGA/SXGA	15 fps
	SVGA	30 fps
	CIF	60 fps
Sensitivity		0.6 V/Lux-sec
S/N Ratio		40 dB
Dynamic Range		50 dB
Scan Mode		Progressive
Maximum Exposure Interval		1247 x t _{ROW}
Gamma Correction		Programmable
Pixel Size		2.2 µm x 2.2 µm
Dark Current		15 mV/s at 60°C
Well Capacity		12 Ke
Fixed Pattern Noise		<1% of V _{PEAK-TO-PEAK}
Image Area		3590 µm x 2684 µm
Package Dimensions		5725 µm x 6285 µm

Figure 2 Functional Block Diagram



2640CSP_DS_002

6. (Camera Module Configuration)

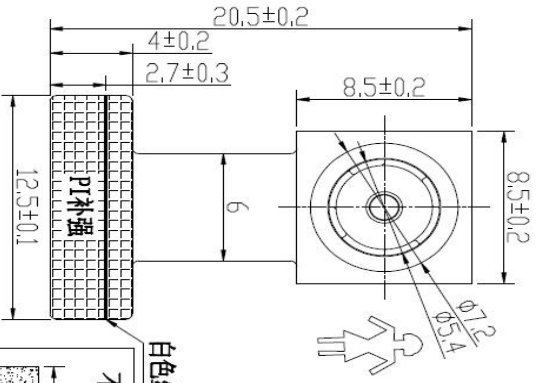
ROHS

Pin Assignment

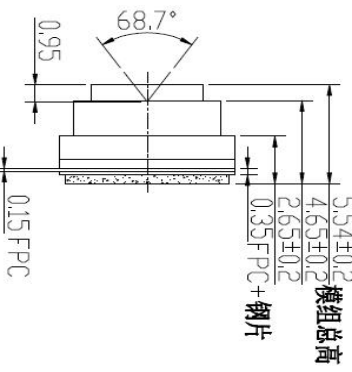
1	NC
2	AGND
3	SDA
4	AVDD_2.8V
5	SCL
6	RESET
7	VSYNC
8	PWDN
9	HSYNC
10	DVDD_1.3V
11	DOVDD_1.8V
12	Y9
13	MCLK
14	Y8
15	D3ND
16	Y7
17	PCLK
18	D8
19	Y2
20	Y5
21	Y3
22	Y4
23	Y1
24	Y0

注：
未标注尺寸公差为+/-0.2mm
* 为重要检验尺寸

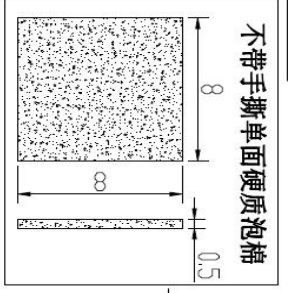
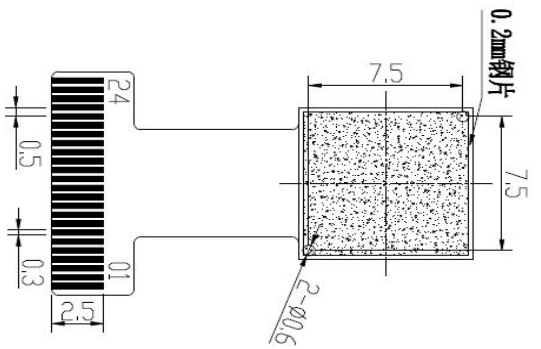
Top view



Side view



Bottom view



模组规格 [Module Specification]

镜头 [Lens]	3.29mm
焦距 [F/NO]	2.8
视场角 [FoV(D)]	68.7°
晶片规格 [CONSTRUCTION]	4P+IR
最大取景范围 [Max Image Circle]	φ4.9mm
聚焦范围 [Focusing Range]	10cm-INFINITY
畸变 [TV-Distortion]	<1%
分辨率 [Resolution]	中心≥800 四周≥600
芯片 [Sensor]	DV2640
丝印 [silk-screen]	ZY-XSF3W2640B-V1
连接器 [Connector]	马达 [VCM]
闪光灯 [Flash]	驱动IC [Driver IC]
IO地址 [I2C]	测试距离
测试精度 [Resolution]	ISO chart (49 7437.3)

深圳市卓影光电有限公司

F3MB-CAM

LEVEL	TOLERANCE	TYPE	D
<3	±0.03	±0.03	±0.15
>3-50	±0.05	±0.05	±0.15
>50-100	±0.05	±0.08	±0.15
>100	±0.08	±0.12	±0.2
ANGLE	±0.5°	±0.5°	±0.8°

Version	历史	History	Date
版本	记录	记录	日期
U1A	模块	Module	2019/05/19
Revision	变更者	Inspector	
版本号	变更者	变更者	
Doc No	Doc No	Doc No	
ZY-XSF-3W2640B-V1.0	yaohaike	yaohaike	09/05-19
Doc No	Doc No	Doc No	
CHEN	CHEN	CHEN	09/05-19
Doc No	Doc No	Doc No	
Scale	比例	Scale	1:1
比例	比例	比例	1/1