

Shenzhen Hongjia Precision Imaging Co., Ltd.

# 产品承认书 (Product acceptance letter)

客户名称(Customer name)						
送样日期(Send sample date)						
产品名称(Product name)	AS-AG638A32M2-50					
客户料号 (Customer Item			制作	744	alists.	
No)			(Fabrication)	谢灿华		
产品规格 ( Product			审核		·=	
specification )			(Auditing)	张露		
产品型号(Product model)	AS-AG638A32	M2-50	核准	张露		
) 品至与(Froduct Model)	A3-AG030A32	.1012-30	(Approval)	ינכ		
	客户确认(Cus	tomer con	firmation)			
部门	研发	测试	品质	采购	其它	
(Department)	(Development)	(Test)	(Character)	(Purchase)	(Else)	
姓名						
(Name)						
日期						
(Date)						

地址(Address):广东省深圳市龙华区大浪街道华霆路雅佳时工业园 B 栋 2 层(Floor 2, Building B, Yajiashi Industrial Park, Huating Road, Dalang Street, Longhua District, Shenzhen City, Guangdong Province)



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# 版本更改 Version

日期/Date	版本/Ver.	修改版本/Modification
2024-07-11	A0	第一版本(The First Version)



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#### 1. 产品概况 Product Profile:

AS-AG638A32M2-50 摄像头模块采用监控相机领域先进的数字 CMOS 图像传感器,模块支持 1920H x 1080V@30fps 的速率输出,支持输出 raw 格式图像,支持复杂的片上操作,例如窗口化、水平镜像、垂直倒置等。可以通过标准的 I2C 接口读写寄存器,可以通过 EFSYNC/FSYNC 引脚实现外部控制曝光。用户可以完全满足使用需求。产品适用于智能识别系统,智能家居,摄像机监控摄像头等产品中使用。

The AS-AG638A32M2-50 camera module adopts the advanced digital CMOS image sensor in the field of surveillance cameras. The module supports the rate output of 1920 H x 1080V @ 30 fps, supports the output of images in raw format, and supports complex on-chip operations, such as windowing, horizontal mirror, vertical inversion, etc. External controlled exposure can be achieved through a standard I2C interface, and external controlled exposure via EFSYNC / FSYNC pins. Users can fully meet the use of the needs. The products are suitable for intelligent identification system, smart home, camera surveillance camera and other products.

#### 2. 产品特性 Product Features

- 1. 采用 1/3 高质量 CMOS 图像传感器
  - A 1 / 3 high-quality CMOS image sensor was used
- 2.支持 1080P/30 帧视频流畅输出
  - Supports 1080P / 30 frame video smooth output
- 3.体积小,超低功耗

Small size, ultra-low power consumption

#### 3. 应用范围 Product application

- 人脸识别 Face recognition
- 监视设备(车用监视器、便携视频采集、远程监视) Supervising equipment (Car Monitor & Portable video capture and remote monitoring)
- 家居用品(可视门铃、可视电话)Household goods (video doorbell, video phone)

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### 4. 电气规格 Specifications

NO	项目/Item	参数说明/	备注/Remark				
1	图像传感器/Image Sensor	1/3inch _ CMOS Sensor					
2	最大分辨率/ Maximum Resolution	1920H×1080V					
3	像素大小/ Pixel Size	2.65um*2.65um					
4	信噪比/ S/N radio	TBD					
5	动态范围/Dynamic Range	TBD					
6	曝光系统/ Exposure System	自动曝光/Auto Exposure	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				
7	电子快门/ Electronic Shutter	滚动快门/ Rolling shutter					
8	帧率/Frame	1920H x 1080V@30fps 10bit					
9	供电/Power Supply	AVDD:2.8V±0.1V;IOVDD:1.8V±0.1V					
10	灵敏度/Sensitivity	TBD					
11	最佳工作温度/ Working Temp	0°C ~ 60°C					
12	储存环境温度/ Storage Temp	0°C ~ 65°C					
13	最佳镜头主光线角/CRA	15°					
14	时钟/Input clock frequency	12 OR 24MHz					
15	产品尺寸/ Dimension	10MM (W) ×50MM (L) ×8.0	67MM (H)				
		焦距 Focal Length	4.6MM				
		视场角 FOV	D:66° H:60° V:36°				
16	镜头参数/Lens Parameter	畸变 Distortion	<-1.0%				
		光谱特性 Spectrum	650nm (滤光片 Optical filter)				
		光圈 F/NO	2.0±10%				

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#### 5.可靠性测试 Reliability Testing

NO	试验项目	试验条件	判定标准	
	Testing Item	Testing Conditions	Judgment Standard	
1	高温功能试验	高温 60°C; 8H 通电	在 8H 测试中工作正常	
	High Temp. Test	high temp.60°C; 8H aging test	Proper Functioning in 8H	
2	低温功能试验	低温0°C: 8H 通电	在 8H 测试中工作正常	
	Low Temp. Test	low temp.0°C; 8H aging test	Proper Functioning in 8H	
3	高温贮存试验	温度 65°C;8H	恢复常温后产品工作正常	
	High Temp. storage test	Temp.:65°C;8H	Proper Functioning after test	
4	低温贮存试验	温度 0°C;8H	恢复常温后产品工作正常	
	Low Temp. storage test	Temp.:0°C;8H	Proper Functioning after test	
5	老化测试	连续点亮模组; 48H	在 48H 测试中工作正常	
	burn-in test	Continuous lighting module; 48H	Proper Functioning after 48H	
6	振动试验 Vibration test	1. 振动标准: (1). 振动方向: Y方向 (2). 振动幅度: 2mm (3). 振动频率: 10HZ to 50HZ (4). 振动表面: 紧靠一角的三个面 (5). 振动时间: 30 分钟/每个面 1. Vibration standard: (1). Direction: Y direction (2). Range: 2mm (3). Frequency: 10HZ to 50HZ (4). Surface: 1 surface fixed when testing another 3 surface (5). Time: 30mins. / every surface	振动后,摄像机结构及功能应正常,所有配套附件及吸塑不出现异常现象 The camera structure &function working good after vibration, all accessories&blister have no change.	



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#### 6. 外观检查 appearance inspection

NO	项目 Item	要 求 Requirements	检验方法 Inspection Ways	不合格分类 Unqualified Classification
1	模组外观 Module appearance	模组表面无脏污、无肉眼可见划伤,塑胶内无杂质 No dust, no visible scratches on surface & no impurities in the plastic.	目视检查 Visual inspection	A
2	镜片 Lens	裸视 0.8 在 500±50Lux 的照度下平视、距离 35cm 检查时不可有肉眼可见伤痕或脏污 No dust & visible scratches under magnifier (no matter 500 ±50Lux light horizontally orInspection at a distance of 35cm)	目视检查 Visual inspection	A
3	密封胶 Sealing Gum	在底座与 FPC 之间均匀充满密封胶,不可有间隙、无厚薄不均的现象,不可有胶溢出 FPC 边缘导致外形尺寸超标的现象 Fill the sealing gum between base and FPC evenly, gap & uneven thickness are not allowed, also spilled gum aside FPC is forbidden.	目视检查 Visual inspection	A
4	连接器 Connector	外观不可有异物附着、油污、变色等缺陷; 2)不允许有缺锡、 少锡现象,不允许有连焊现象; 3)PIN 脚光亮、平整,不允许 有翘起现象 1)Foreign bodies, dirt and discoloration on surface are not allowed. 2)No tin, lack of tin & continuous welding phenomenons are not permitted. 3)Pins should be smooth, even and tilts are forbidden.	1.5X 显微镜 (连续变焦) 1.5X Microscope (Continuous Zooming)	A
5	补强钢板 Reinforced Steel	表面不可有脏污、生锈、有触感划痕; 2) 定位柱超出板面高度 <0.1mm  1) Grease dirt, rust & scratches on surface are not permitted; 2) Location column is less than 0.1mm over surface	目视 Visual	В

### 7.图像规格 Image Specification

检验项目 NO. Inspection Items		要求 Requirements	检验方法 Inspection Ways	不合格分类 Unqualified classification
1	污点 (Dust)	白场下,获取图像,目测全画面不允许有可见 异物存在 Foreign bodies are not allowed when visual inspection and get pictures under white field.	测试夹具. 小灯箱(500lux 白色背光) Test fixtures, Small light box (500lux white backlight)	A
2	成像方向 (imaging direction)	符合图纸要求 according to Diagram	测试夹具 Test fixtures	A

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公司网址(Company website address): <a href="http://www.cammodule.com.cn/">http://www.cammodule.com.cn/</a>



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3	分辨率 (Resolution)	CIF中心 100 TV LINE VGa(1P) —中心 300 VGa(2P)—中心 300 TV LINE,四周 250 TV LINE 2M—中心 800 TV LINE,四周 600 TV LINE 3M中心 1000 TV LINE,四周 800 TV LINE 5M中心 1200 TV LINE,四周 1000 TV LINE 8M中心 1400 TV LINE,四周 1200 TV LINE	MTF 测试程序 MTF testing procedures	В
4	视场角(F0V)	对角线(Diagonal):D:66°	测试夹具、视场角标板 Test fixtures,FOV Board	A

#### 8.模组尺寸 Module size

NO.	项目	要求	检验方法	不合格分类
	Items	Requirements	Inspection Ways	Unqualified Classification
1	高度	符合图纸要求	数显卡尺	97
'	Height	according to diagram requirements	Digital Caliper	A
2	长度	符合图纸要求	数显卡尺	A
2	Length	according to diagram requirements	Digital Caliper	
3	宽度	符合图纸要求	数显卡尺	A
3	Width	according to diagram requirements	Digital Caliper	

#### 不合格品分类的说明:

- a) 严重不合格: 经检验判定的批量不合格,或造成较大经济损失、直接影响产品质量、主要功能、性能技术指标等的不合格,用字母a表示;
- b) 一般不合格:一般不合格是指能够同时满足下列条件的不合格品, 用字母B表示。
- 1) 不影响最终产品的外观质量;
- Ⅱ) 不影响最终产品的技术性能;
- Ⅲ)原材料或最终产品不影响下道工序的加工或组装。

Description of the classification of nonconforming products:

- a) serious non-conformities: unqualified batches determined by inspection, or those that cause greater economic losses, directly affect product quality, main functions, performance and technical indicators, etc., expressed by the letter a.
- B) General nonconformities: general nonconformities refer to nonconforming products that can meet the following conditions at the same time, expressed by the letter B.
- I) it does not affect the appearance quality of the final product.
- II) it does not affect the technical performance of the final product.
- III) the raw materials or final products do not affect the processing or assembly of the next process.

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#### 9.出货抽样检验报告 Shipment sampling inspection report



#### 深圳市泓嘉精密影像有限公司

#### 出货抽样检验报告

(Shipping Sample Inspection Report)

客户代码:	市	【种型号:	日期:					
1. 外观检验:						~		
抽样计划:GB/T2828.1-2	2012	出货数量:	抽样			允收水准 AQL:		
检验项目:				结 OK	果 NG	备注		
1-1 镜头表面是否有残胶,	刮伤, 赃污	- Oik	1,0					
1-2 镜座与FPC、镜头与//								
1-3 镜座与FPC组装是否到	1-3 镜座与FPC组装是否到位, 是否有缝隙, 边沿是否多料							
1-4 FPC是否有折痕, 破损	1,金手指弯曲	1						
1-5FPC丝印状态								
2.尺寸检查:								
抽样计划:GB/T2828.1-2	012	出货数量:	抽样	数:		允收水准 AQL:		
检验项目:	标准月	₹寸 (mm)	实测值(mm)	结 OK	果 NG	备 注		
2-1模组总高								
2-2 钢片尺寸								
2-3 FPC厚度								
2-4 背胶规格								
2-5 连接器型号								
2-6拉力测试								
3.功能检测:	2012	山化粉星	++ +× :	¥1-		Aufrak Wt AOI		
抽样计划: GB/T2828.1	-2012	出货数量:	抽样		ш	允收水准 AQL:		
检验项目:				约 OK	果 NG	备 注		
3-1 芯片型号								
3-2 镜头型号								
3-3 是否有影像	40							
3-4 影像色彩是否正常								
3-5 影像成像是否清晰								
3-6影像是否有污点								
3-7 影像是否有重影								
3-8 影像是否闪烁		Ive ze						
3-9 清晰度 中心:	i	边角:						
. A STOLANTA								
4. 包装检验:		1. 75 10 1	Li iv	aler.				
抽样计划:GB/T2828.1-2	012	出货数量:	抽样	-		允收水准 AQL:		
检验项目:					果	备 注		
				OK	NG			
4-2 包装材料是否正确								
4-3 包装方式是否正确	T/2.							
4-4 包装标签内容是否正	10月							
• 10 70 / b III	A 16 —	<del></del>	lk —		I .			
4. 检验结果:	合格 口	不合	格 凵					
检验员:				审 核	<u> </u>			
备注:								
L								

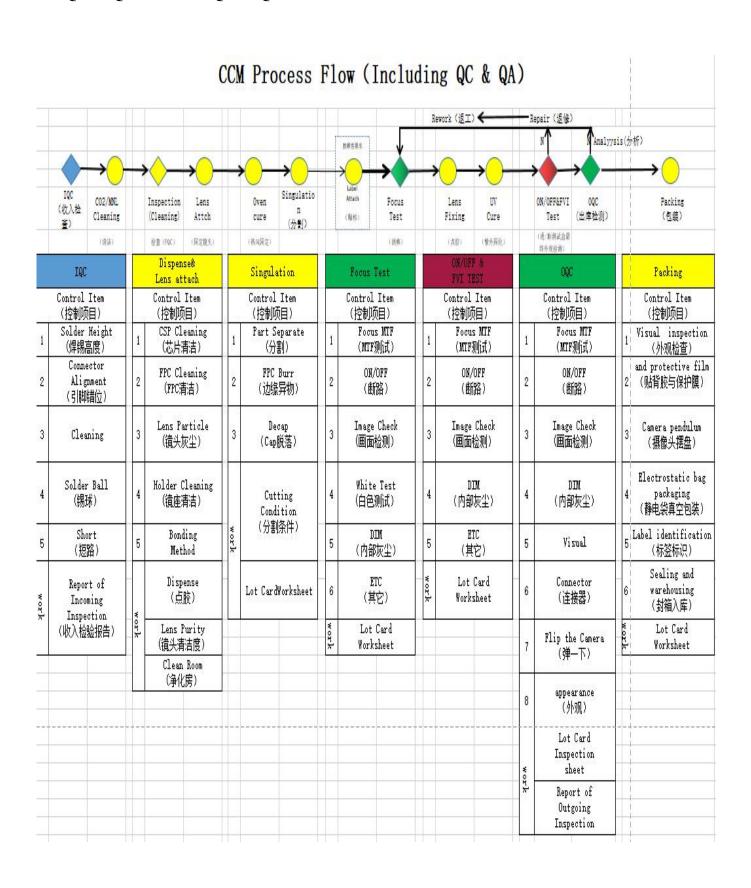
HJ-FM-PZ-24

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#### 10.QC&QA 流程图 QC&QA flow chart

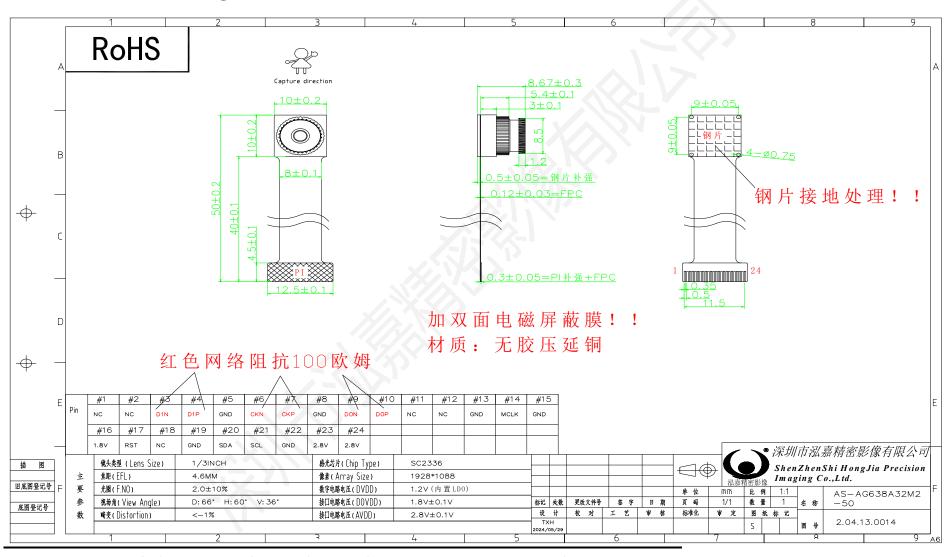


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### 11. 结构图 Structure Diagram



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公司网址(Company website address): http://www.cammodule.com.cn/



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### 12.接口定义 Connector Definition:

序号	接口定义	I/O	定义说明	备注
1	NC	NC	NC	
2	NC	NC	NC	
3	DIN	Output	MIPI data 1 negative electrode signal	
4	D1P	Output	MIPI data 1 positive electrode signal	
5	GND	Ground	Ground	
6	CKN	Output	MIPI clock negative electrode signal	
7	CKP	Output	MIPI clock positive electrode signal	
8	GND	Ground	Ground	
9	D0N	Output	MIPI data 0 negative electrode signal	
10	D0P	Output	MIPI data 0 positive electrode signal	
11	NC	NC	NC	
12	NC	NC	NC	
13	GND	Ground	Ground	
14	MCLK	Input	Clock input	
15	GND	Ground	Ground	
16	1.8V	Power	DOVDD Power	
17	RST	Input	Reset signal input (built-up resistance, low potential)	
18	NC	NC	NC	
19	GND	Ground	Ground	
20	SDA	I/O	SCCB serial interface data I/O	
21	SCL	Input	SCCB serial interface clock input	
22	GND	Ground	Ground	
23	2.8V	Power	AVDD Power	
24	2.8V	Power	AVDD Power	

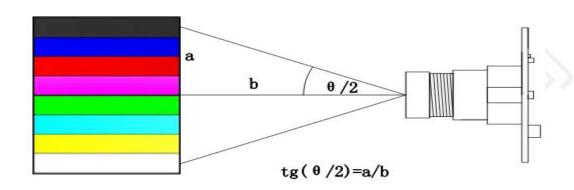
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#### 13.视场角 View angle



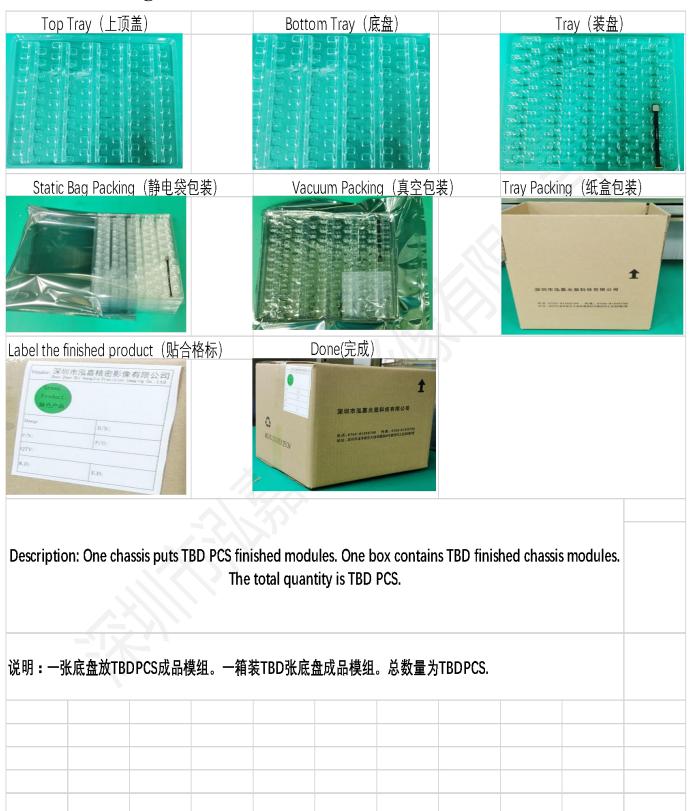
注:测量满景时镜头到彩条板距离 b,可以约算出视角

Note: The view angle could be calculated though measure b distance between lens to testing board.



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#### 14.包装 Packing



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#### 15.注意事项 Notes

1、输入电压请勿超过规格书上规定值以免损坏模组。

The input voltage don't exceed the value stated on the specification, in order to avoid damage to the module.

2、接口连接线不能接反,接反容易烧坏板子,对产品的使用造成影响。

The connector can't be reversed, reverse burn the board and affect the use of the product.

3、此驱动板为电子产品, 所以加工、组装、操作时需注意防静电措施, 以免影响产品性能。

This is a electronic product, so processing, assembly, operation need to take anti-static measures to avoid affecting product performance.

4、镜头是玻璃制品小心拿放,以免破裂。

Lens is glass product, place carefully to avoid breakage.

5、镜头是玻璃制品注意防尘、防损,以免影响图像较果。

Lens is glass-made product, please take anti-dust, loss prevention measures to prevent the image quality.

#### 16.配线 Accessory Cable

**TBD**