

## 产品规格书

## Specification

产品名称 (Product) 1/3" CMOS 彩色摄像模组 (1/3" CMOS Color camera module)摄像头 (Camera Module): JDFH430H版本号 (Version): VER:1.00镜头 (Lens): 3.7mm (650nm)

客户名称 (Customer): \_\_\_\_\_

客户型号 (Cust.P/N): \_\_\_\_\_

日期 (Date): \_\_\_\_\_

客户 CUSTOMER			承制方 MANUFACTURER		
品质 Quality	工程 Engineer	审批 Approved	审核 Checked	批准 Approved	销售 Sales

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## 1. 概况 Profile:

JDFH430H CMOS 彩色摄像模组，采用 1/3" CMOS 影像传感器。适用于需要摄取视频信号的各种电子设备中，有 PAL 制式、NTSC 制式，智能曝光系统，自动白平衡等功能。

JDFH430H camera module is comprised by 1/3" CMOS Image sensor, it applies to difference electric equipment that need capture video signal. such as PAL system, NTSC system, intelligent exposure, automatic white balance.

## 2. 可选镜头 Lens

可选 3.6mm 镜头，2.8mm，3.7mm 或其他客户指定的镜头。

Option 3.6mm lens, 2.8mm, 3.7mm or other lens which be specified.

## 3. 产品特性 Features


1. CVBS 视频输出 (1.0±0.2V<sub>p-p</sub>/ 75 欧姆)  
CVBS Video output (1.00 ±0.2 V<sub>p-p</sub>/ 75 ohms)
2. PAL 制式、NTSC 制式  
PAL system, NTSC system

## 4. 应用范围 Application

- 办公室电子设备 Office electronic device
- 仪器、仪表和测量用具 Equipment & Instrument and measuring tools
- 机器设备 Machine equipment
- 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）Home supplies (Video door phone & video phone)

## 5.电气规格 Specifications

NO	项目/Item	参数说明/Specification	备注/Remark
1	图像传感器/Image sensor	1/3 inch CMOS	
2	图像制式/Video Format	PAL, NTSC	默认(Default):PAL
3	有效像素/Effective pixel	733(H) ×493(V)	
4	同步方式/Synchronous mode	内置同步/Internal synchronous	
5	水平解析度/Resolution	CVBS: 480TVL	
6	像素大小/Pixel size	6.35um H *7.4um V	
7	信噪比/S/N radio	45dB	
8	灵敏度/Sensitivity	17V/Lux*s	
9	曝光系统/Exposure system	自动曝光/Automatic Exposure	
10	电子快门/Electronic Shutter	电子滚动快门/ Electronic Scroll Shutter	
11	动态范围	60dB	
12	白平衡/ white balance	自动白平衡/Automatic white balance	
13	视频输出/Video output	CVBS:1.0±0.2Vp-p/75 ohm	
14	帧率/Frame rate	CVBS:50FPS (PAL) /60FPS (NTSC)	
15	输入电压/Input voltage	DC12V	极限范围+5V~+30V Limit Range +5V~+30V
16	功耗/Power Consumption	DC+12V 电压时: 电流为 20mA±10MA DC+12V Voltage: current:20mA±10mA	
17	工作环境温度/Working Temp	-20℃ ~ 70℃	
18	储存环境温度/Storage Temp	-40℃ ~ 105℃	
19	湿度/Humidity	5~95% RH	
20	图像显示方向/Direction	拍摄正立图像时基板放置方位 Front Stand	
21	产品尺寸/Dimension	32mm (L) ×32 mm (W) ×14.3mm (H)	

NO	项目/Item	参数说明/Specification		备注/Remark
23	镜头参数/ Lens Parameter	焦距 Focus	3.7mm	
		对角线视角 Diagonal view angle	87±3°	
		水平视角 Horizontalview angle	67±3°	
		垂直视角 Vertical view angle	50±3°	
		对焦距离 Focus Distance	40CM(近焦 Near) 1.5M (远焦 Far)	
		相对畸变 Distortion	<-8.3%	
		光谱特性 Spectrum	650nm 不感红外型 Non-inductive infrared	

## 6. 可靠性测试 Reliability Testing

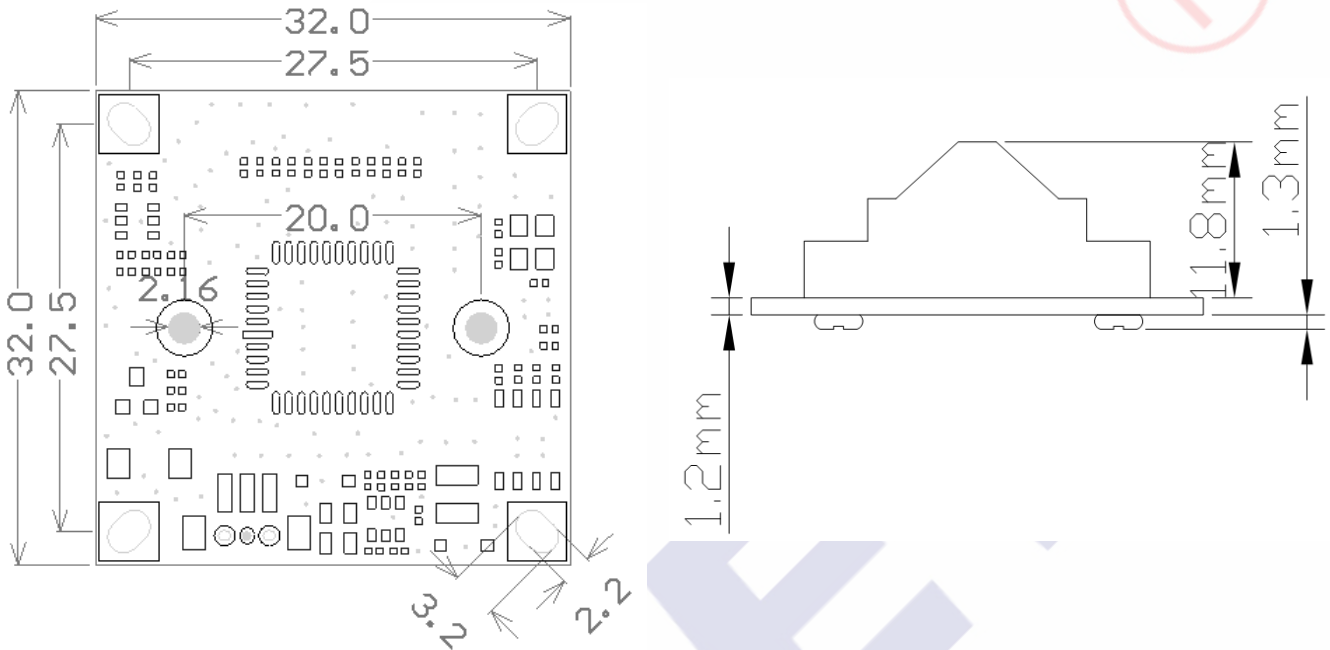
NO	试验项目 Testing Item	试验条件 Testing Conditions	判定标准 Judgment Standard
1	高温功能试验 High Temp. Test	+12V 通电, 高温 85℃; 8H 通电 +12V, high temp.85℃; 8H aging test	在 8H 测试中工作正常 Proper Functioning in 8H
2	低温功能试验 Low Temp. Test	+12V 通电, 低温-20℃; 8H 通电 +12V, low temp.-20℃; 8H aging test	在 8H 测试中工作正常 Proper Functioning in 8H
3	温湿度测试 Temp.& Humidity test	温度 70℃; 湿度 93%; 32H 通电 Temp.:70℃; Humidity 93%;32H aging	在 32H 测试中工作正常 Proper Functioning in 32H
4	高温贮存试验 High Temp. storage test	温度 105℃; 8H Temp.:105℃;8H	恢复常温后产品正常 Proper Functioning after test
5	低温贮存试验 Low Temp. storage test	温度-40℃; 8H Temp.: -40℃;8H	恢复常温后产品正常 Proper Functioning after test
6	寿命试验 Aging Test	12V 通电; 连续开关机; 48H 12V DC; Continuous on/off; 48H	在 48H 测试冲击中工作正常 Proper Functioning after 48H
7	间断电源试验 Discontinuous power supply test	常温下各输入 9V\12V\15V,5 秒循环开关机。每个电压通电 4H Input 9V\12V\15V,turn on/off in every 5s,test 4H for each voltage	每个电压冲击工作正常 Every Voltage works good after shock
8	静电放电试验 ESD test	接触放电 Contact discharge: 6.0KV 空气放电 Air discharge: 8.0KV 水平/垂直接触放电: 8.0KV Horizontal/Vertical discharge: 8.0KV	产品功能和外观无问题 Function and appearance are all ok

NO	试验项目 Testing Item	试验条件 Testing Conditions	判定标准 Judgment Standard										
9	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:1surface 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.										
10	跌落试验 Drop test	1.跌落标准: (1).跌落地面:水泥地板或钢板 (2).跌落方位:一角、三边、六面 (3).跌落方式:自由下落 (4).跌落高度:根据产品的重量依照下表而定 1. Drop standard: (1). Floor: concrete floor steel plate (2).Direction: corner, three sides, six surface (3). Drop way: free falling (4). Height: according to the product's weight as follows: <table border="1" data-bbox="518 1507 978 1733"> <thead> <tr> <th>重量 Weight</th> <th>高度 Height</th> </tr> </thead> <tbody> <tr> <td>0kg&lt;W≤4.5kg</td> <td>91cm</td> </tr> <tr> <td>4.5kg&lt;W≤11.8kg</td> <td>76cm</td> </tr> <tr> <td>11.8kg&lt;W≤23.1kg</td> <td>61cm</td> </tr> <tr> <td>23.1kg&lt;W≤45.4kg</td> <td>46cm</td> </tr> </tbody> </table>	重量 Weight	高度 Height	0kg<W≤4.5kg	91cm	4.5kg<W≤11.8kg	76cm	11.8kg<W≤23.1kg	61cm	23.1kg<W≤45.4kg	46cm	跌落后,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 and function is normal after dropped, all of accessories& blister are well.
重量 Weight	高度 Height												
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23.1kg<W≤45.4kg	46cm												

## 7. 结构图 Structure Diagram

以下标注尺寸单位为: mm, 公差为±0.2mm(已标注公差除外)

Following size units are: mm, tolerance ±0.2mm(exclude marked)



正面实物图(Front):

背面实物图(Back):



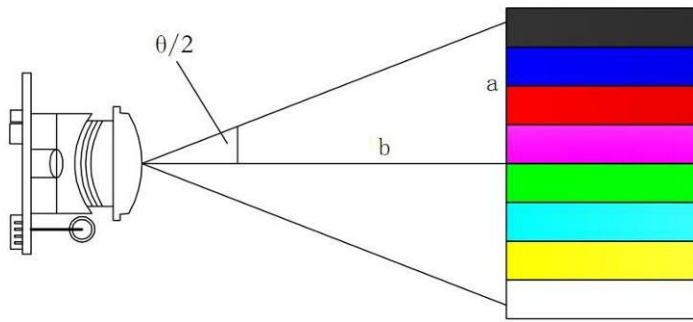
VIDEO GND 12V



## 8. 视场角 View Angle

标注尺寸单位为：mm，公差为±0.2mm

Size units are: mm, tolerance ±0.2mm



标准彩条

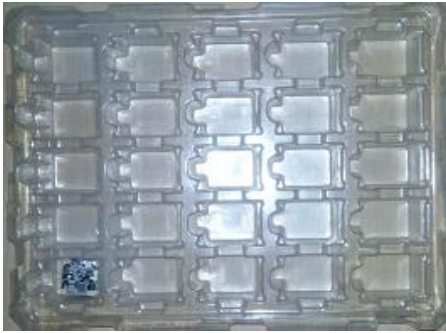
$$\text{tg}(\theta/2) = a/b \Rightarrow \theta = 2\text{arctg}(a/b)$$

测量满景时镜头到彩条板距离  $b$ ，可以约算出视角

注：测量满景时镜头到彩条板距离  $b$ ，可以约算出视角

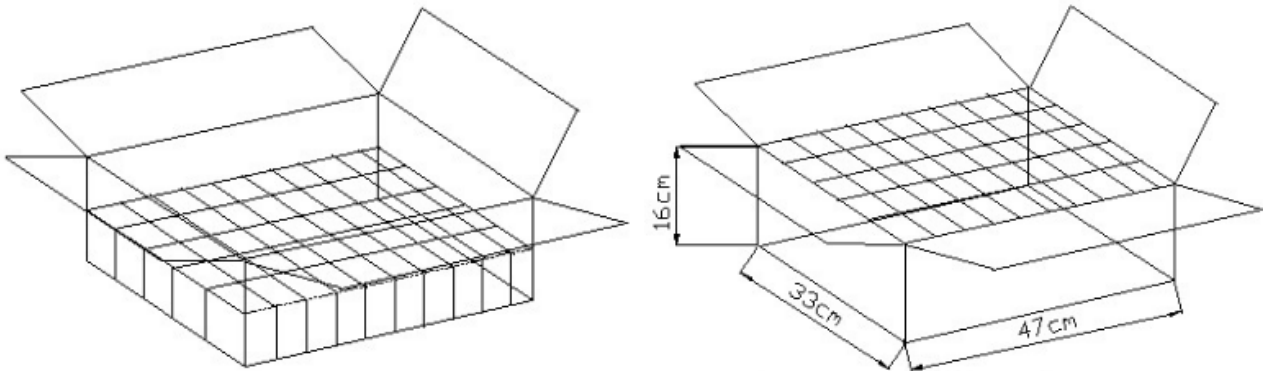
Note: The view angle could be calculated though measure  $b$  distance between lens to testing board.

## 9. 包装 Packing



**步骤 1：**将摄像模块放入吸塑盒中，放满为止；

Step1: Put the camera module into the blister box until it is full.

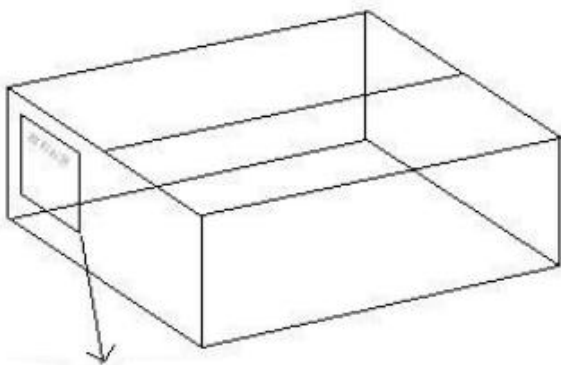


**步骤 2：**将吸塑盒放入纸箱；

Step2: Put the blister box into the carton.

**步骤 3：**逐层放入装有摄像模块的吸塑盒，直到放满为止；

Step3: Place the blister box with the camera module layer by layer until it is full.



**步骤 4：**检验员检验合格后放入合格证，贴好物品标签并用胶纸封好纸箱。

Step4: After inspection, the inspector puts in the certificate of qualification, affixed the label of the goods and sealed the cartons with adhesive paper.

## 10. 外箱标签 Carton Mark

外箱标签的内容如下 The carton box mark include below information:

厂家码 Vendor Number :

订单号 Order Number :

物料规格 Part Specifications :

原料编号 Part Number :

生产日期 Production Date :

交货数量 Delivery Qty :

保障期限 Delivery Date :

备注 Remark :

## 11. 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.

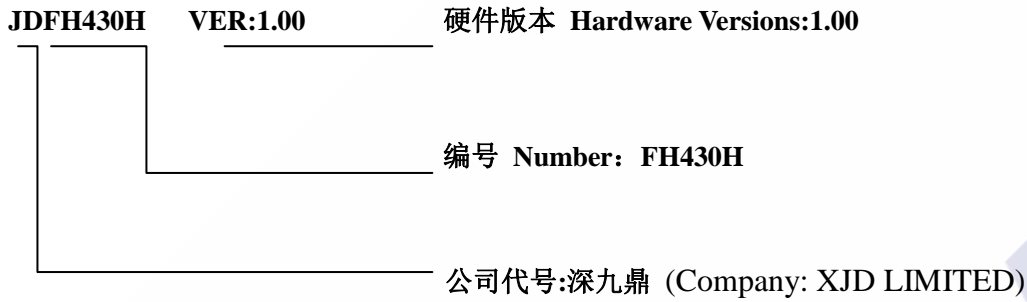
- 4、镜头是玻璃制品小心拿放，以免破裂。

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.

## 12. 命名规则 Naming Rule



## 13. 配线 Accessory Cable

无配线

No Accessory