

## 产品规格书

## Specification

产品名称 (Product) USB 摄像头模组(USB Camera Module)摄像头 (Camera Module): JDEPC-OV06版本号 (Version): VER:1.00镜头 (Lens): 3.36mm (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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# 版本更改 Version

日期/Date	版本/Ver.	修改版本/Modification
2017-05-15	VER:1.00	第一版 ( The First Version)

## 1. 概况 Profile:

JDEPCOV06V1.00 摄像模块,采用具有高画质的 1/4" CMOS 图像传感器; 产品适用于行车记录仪, 智能识别系统, 智能家居, 笔记本电脑, 警用执法仪, 高拍仪, 玩具, 汽车后视, 可视门铃, 扫描识别类产品等需要进行图像采集的领域, 支持 USB1.1/2.0 接口, 免装驱动。制成品摄像模块具有体积小, 色彩还原度准确、图像清晰、低功耗量、可靠性高之特点。

JDEPC-OV06 VER: 1.00 camera module, adopt 1/4" CMOS Sensor with high quality image ; it is suitable for vehicle traveling data recorder, the intelligent recognition system, smart home, laptop computers, police law enforcement apparatus, high instrument, toys, car rear view, visual doorbell, scan to identify products, such as the need for the field of image acquisition ;supporting USB 1.1/2.0 interface, no need for driver ; this camera module has small volume, high accuracy for color revert, clear image, low consumption, high dependability, etc.

## 2. 产品特性 Features

1. 1/4inch CMOS 传感器  
1/4" CMOS Sensor
2. 200 万像素 / 2MP Effective pixel
3. 支持 USB2.0 接口  
Supporting USB 2.0 interface
4. YUV422 视频输出  
YUV422 Video output
5. VGA/CIF/格式  
VGA/CIF/ format
6. IR 防红外线干扰滤镜(IR Filter).  
IR Anti-IR interference filter (IR Filter).
7. 自动聚焦/ Auto-focus

## 3. 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)

## 4. 电气规格 Specifications

NO	项目/Item	参数说明/Specification	备注/Note
1	图像传感器/ Image sensor	1/4" CMOS	
2	有效像素/ Effective pixel	2592um* 1944um	
3	输出图像格式/ Output image format	MJPEG/YUV2(YUYV)	
4	支持的分辨率及帧率 Support resolution and frame rate	2592X1944 MJPEG@12fps YUY2@2fps/ 1920X1080 MJPEG@ 25fps YUY2@ 5fps 1280X960 MJPEG@ 25fps YUY2@6fps/ 1280X720MJPEG@25fps YUY2@6fps 800X600 MJPEG@25fps YUY2@15fps/ 640X480 MJPEG@ 25fps YUY2@ 18fps 320X240 MJPEG@25fps YUY2@20fps	
5	像素大小/ Pixel Size	1.4um*1.4um	
6	信噪比/ S/N ratio	> 36dB	
7	动态范围/ Dynamic Range	83.5dB	
8	灵敏度/ Sensitivity	5.5V/ lux-sex @550nm	
9	快门类型/ Shutter Type	Electronic rolling shutter / Frame exposure	
10	支持免驱协议/ Support drive - free protocols	USB Video Class(UVC)	
11	输入电压/ Input Voltage	DC5V	
12	自动对焦/ Auto Focus	支持/ Support	
13	自动曝光控制/Automatic Exposure Control	支持/ Support	
14	自动白平衡/ Automatic White Balance	支持/ Support	
15	自动增益控制/Automatic Gain Control	支持/ Support	
16	工作环境温度/ Working temp	-30℃ ~ 70 ℃	
17	储存环境温度/ Storage temp	-40℃ ~ 80℃	
18	产品尺寸/ Size	62 (L) ×9 (W) mm	

19	镜头参数/Lens Parameter	焦距 Focus	3.36mm	
		对角线视角 Diagonal view angle	65° ±3°	
		水平视角 horizontal view	60° ±3°	
		垂直视角 Vertical view angle	35° ±3°	
		对焦距离 Focus Distance	40cm (近焦 Near) 1.5M (远焦 Far)	
		相对畸变 Distortion	<-6%	
		光谱特性 Spectrum	650nm 不感红外型 650nm without IR	

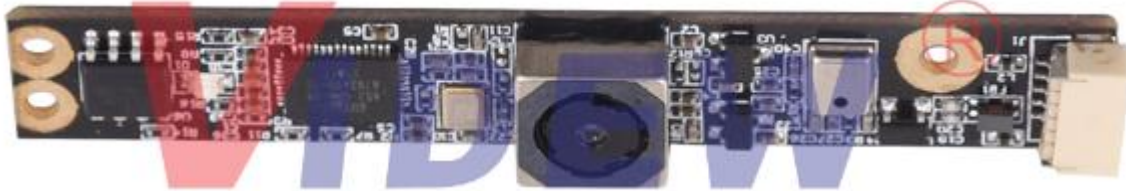
## 5. 可靠性测试 Reliability Testing

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 50°C; 8H 通电 +12V, high temp.50°C; 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 0°C; 8H 通电 +12V, low temp.0°C; 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°C; 湿度 93%; 32H 通电 Temp.:70°C; 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 80°C; 8H Temp.:80°C;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°C; 8H Temp.: -40°C;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="529 1579 992 1805"> <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												
0kg<W≤4.5kg	91cm												
4.5kg<W≤11.8kg	76cm												
11.8kg<W≤23.1kg	61cm												
23.1kg<W≤45.4kg	46cm												

## 6. 产品结构定义 Structure Diagram and Definition

### 6.1 产品实物图 Product Pictures



### 6.2. 背面图 Rear View



### 6.3. 接口定义 Connector Definition:

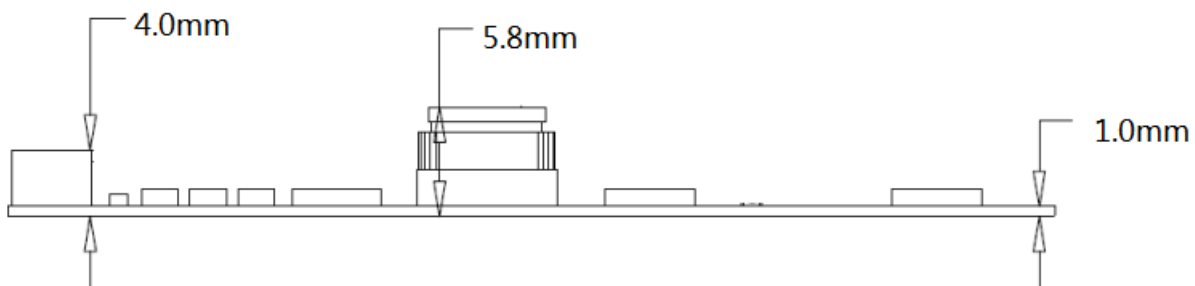
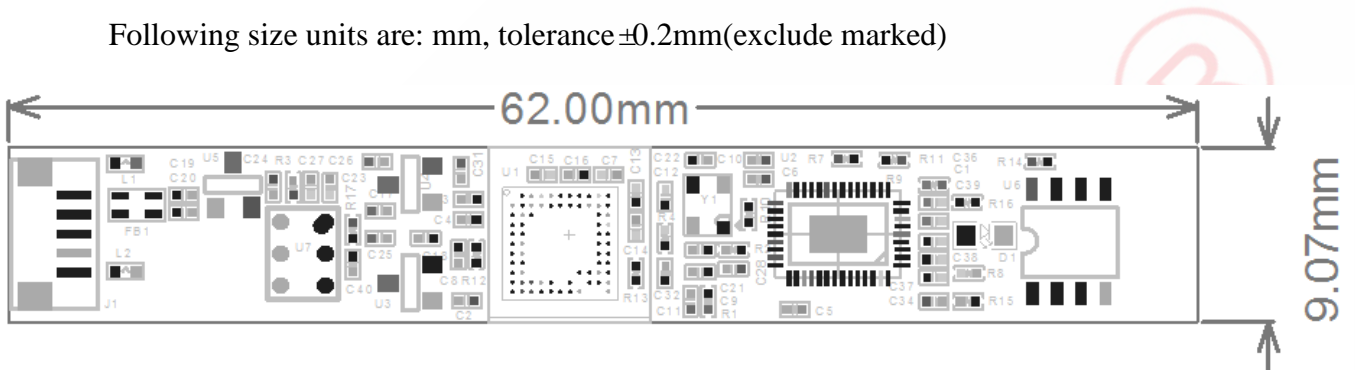
序号	接口定义	I/O/P	定义说明	备注
1	USB +5V	I	+5V 电源/+5V power supply	
2	USBD -	O	USB 数据线-/USB data cable-	
3	USBD +	O	USB 数据线+/USB data cable+	
4	USBGND	I	地/Ground	
5	USBGND	I	地/Ground	



**7. 线路板结构图 Structural Diagram** OV05 参数, 需研发人员确认

以下标注尺寸单位为: mm, 公差为±0.2mm(已标注公差除外)

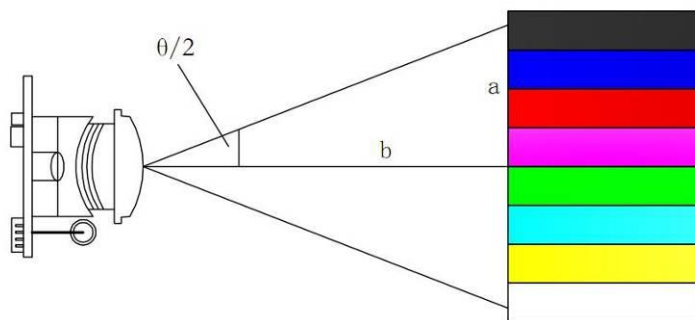
Following size units are: mm, tolerance±0.2mm(exclude marked)



**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  
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: 用防静电袋包装。

Step1: put the camera into antistatic bag box



步骤 2: 用 19.5CM(长)\*12CM(宽)\*3.3CM(高)包装盒。

Step 2: Use 19.5CM(L)\*12CM(W)\*3.3CM(H)Packing



步骤 3: 把装有板的防静电袋装入包装盒。

Step 3: Put the antistatic bag with board into the box



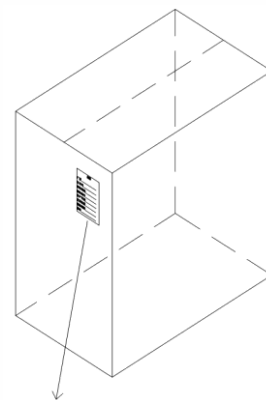
步骤 4: 然后盖上包装盒贴上型号。

Step 4: then packed and stick P/N No.



步骤 5:把已检验合格品放入包装箱

Step 5:put all the boxes to carton



步骤 6:贴好物品标签并用胶纸包好纸箱

Step 6: Stick label and packed the carton

## 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。

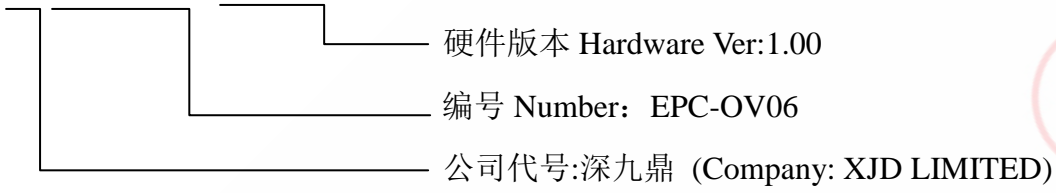
Lens is glass product, place carefully to avoid breakage.

- 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

JDEPC-OV06 Ver:1.00



## 13. 配线 Accessory Cable

无配线

No Accessory