

# Specification

**Product Model:** SJD-USB960P

**Product Version:** VER:1.00

**Customer part number:**

**Date:**

| USER  |            |             | MANUFACTURER |            |             |
|-------|------------|-------------|--------------|------------|-------------|
| QA by | Project by | Approved by | Prepared by  | Checked by | Approved by |
|       |            |             |              |            |             |

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# Catalogue

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## 1、Profile:

SJD-USB960P V1.00 camera module, adopt 1/3" CMOS Sensor with high quality image; The product is used for video door bell and monitoring field which need to capture the image; 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. advantage.

## 2、Capability Parameter:

| NO | Items                    | Parameters  |
|----|--------------------------|---|
| 1  | Image sensor             | Aptina AR0130   |
| 2  | Effective pixel          | 1280(H)X960(v)  |
| 3  | Output image format      | MIPEG/YUV2(YUYV)  |
| 4  | Resolution and FPS       | 1280X960 MJPEG@ 15fps YUY2@9fps/ 1280X720MJPEG@30fps YUY2@15fps<br>800X600 MJPEG@30fps YUY2@20fps/ 640X480 MJPEG@ 30fps YUY2@ 30fps |
| 5  | Pixel size               | 3.75um*3.75um   |
| 6  | S/N ratio                | 44dB  |
| 7  | Dynamic range            | 83.5dB  |
| 8  | Sensitivity              | 5.5V/lux-sex@550nm  |
| 9  | Min. illumination        | 0.01lux   |
| 10 | Shutter type             | Electronic rolling shutter / Frame exposure   |
| 11 | Interface type           | USB2.0 High Speed   |
| 12 | Support the agreement of | USB Video Class(UVC)  |
| 13 | Automatic exposure       | support   |
| 14 | Automatic white          | support   |
| 15 | Automatic gain cont      | support   |
| 16 | Adjustable parameter     | Brightness, Contrast, color saturation, Tonal, definition, Gamma, White balance, Backlight contrast, exposure etc.                  |
| 17 | Lens                     | Optional HS3001F1+H10   |
| 18 | Power supply mode        | USB BUS POWER 4P 2.0MM plug   |
| 19 | Input Voltage            | DC5V  |
| 20 | Working temp.            | 160mA~180mA   |
| 21 | Storage temp.            | -10~70°C  |
| 22 | Size                     | -20~75°C  |
| 23 | Power supply mode        | Optional 38X38mm and 32X32mm  |

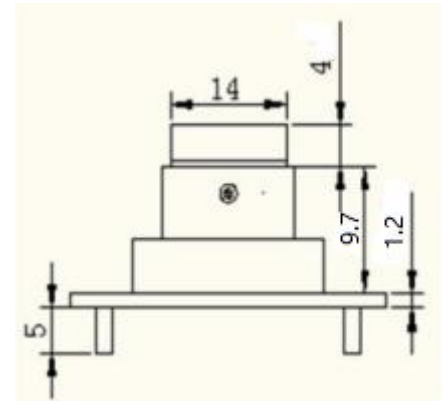
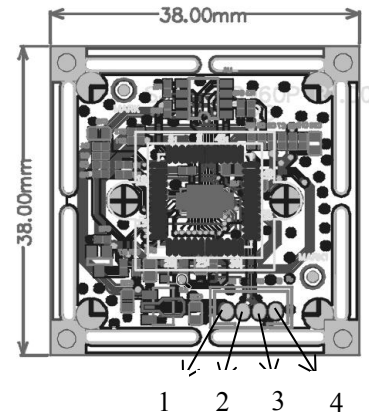
### 3、Reliability test:

| NO              | Test items                      | Testing conditions   | Judgment   |        |             |      |                |      |                 |      |                 |      |  |
|-----------------|---------------------------------|--|--|--------|-------------|------|----------------|------|-----------------|------|-----------------|------|--|
| 1               | High Temp. function test        | Normal electricity, high temp.70℃; 8H aging test   | Test is ok after 8H  |        |             |      |                |      |                 |      |                 |      |  |
| 2               | Low Temp. function test         | Normal electricity, low temp.-10℃; 8H aging test   | Test is ok after 8H  |        |             |      |                |      |                 |      |                 |      |  |
| 3               | Temp.& Humidity test            | Temp. 70℃; Humidity 93%; 32H aging test  | Test is ok after 32H   |        |             |      |                |      |                 |      |                 |      |  |
| 4               | High Temp. storage test         | Temp. 75℃; 8H  | Product will be ok after normal temp.  |        |             |      |                |      |                 |      |                 |      |  |
| 5               | Low Temp storage test           | Temp.-20℃; 8H  | Product will be ok after normal temp.  |        |             |      |                |      |                 |      |                 |      |  |
| 6               | Life test                       | Normal electricity; Continuous on/off; 48H   | Test is ok after 48H shock test  |        |             |      |                |      |                 |      |                 |      |  |
| 7               | Discontinuous power supply test | Contact discharge: 6.0KV<br>Air discharge:8.0KV Horizontal/Vertical discharge: 8.0KV   | Function and appearance are all ok   |        |             |      |                |      |                 |      |                 |      |  |
| 8               | Vibration test                  | 1. Vibration standard:<br>(1).Direction: Y direction<br>(2).Range: 2mm<br>(3).Frequency: 10HZ to 50HZ<br>(4).Surface:1surface fixed when testing another 3 surface<br>(5). Time: 30mins /every surface   | The camera structure &function is normal after vibration, all accessories& blister are ok. |        |             |      |                |      |                 |      |                 |      |  |
| 9               | Drop test                       | 1. Drop standard:<br>(1). Floor: concrete floor steel plate<br>(2). Direction: corner、three sides、six surface<br>(3). Drop way:free falling<br>(4). Height: according to the product's weight as follows:<br><table border="1" data-bbox="525 1556 948 1785"> <thead> <tr> <th>Weight</th> <th>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> | Weight   | Height | 0kg<W≤4.5kg | 91cm | 4.5kg<W≤11.8kg | 76cm | 11.8kg<W≤23.1kg | 61cm | 23.1kg<W≤45.4kg | 46cm | The camera structure and function is normal after dropped ,all of accessories& blister are well. |
| Weight          | Height                          |  |  |        |             |      |                |      |                 |      |                 |      |  |
| 0kg<W≤4.5kg     | 91cm                            |  |  |        |             |      |                |      |                 |      |                 |      |  |
| 4.5kg<W≤11.8kg  | 76cm                            |  |  |        |             |      |                |      |                 |      |                 |      |  |
| 11.8kg<W≤23.1kg | 61cm                            |  |  |        |             |      |                |      |                 |      |                 |      |  |
| 23.1kg<W≤45.4kg | 46cm                            |  |  |        |             |      |                |      |                 |      |                 |      |  |

## 4、 Structural drawing:

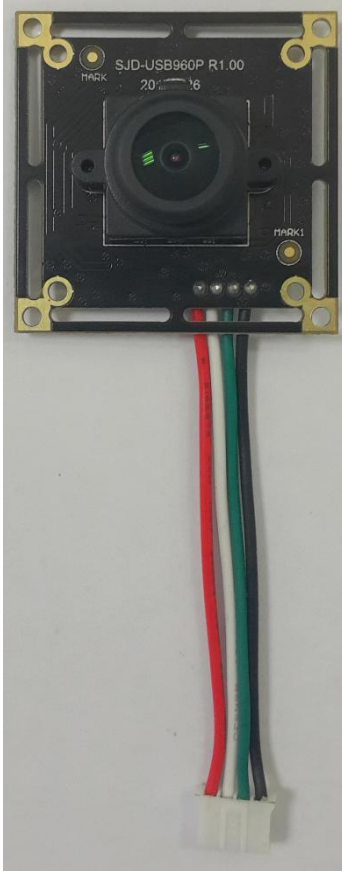
Following size units are: mm, tolerance±0.2mm(exclude marked)

|                                   |   |         |
|-----------------------------------|---|---------|
| RYS USB/IR 960P01(camera drawing) |   |         |
| Unit (mm)                         |   |         |
| Connect 4P USB cable              | 1 | DC5V 输入 |
|                                   | 2 | DM      |
| 4P 2.0                            | 3 | DP      |
| DC 5V input                       | 4 | GND     |
| Video output                      |   |         |

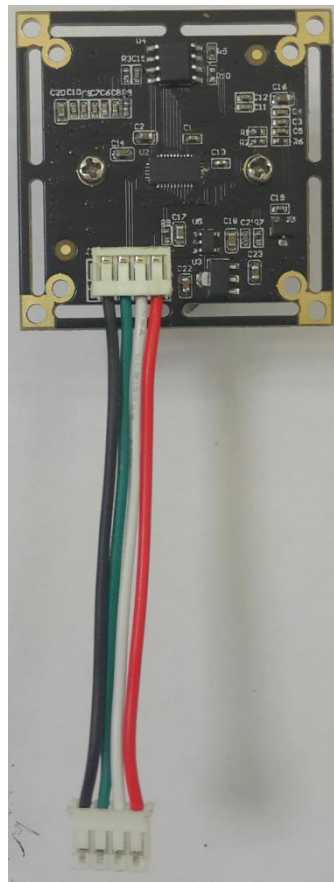


## Product pictures

**Front**

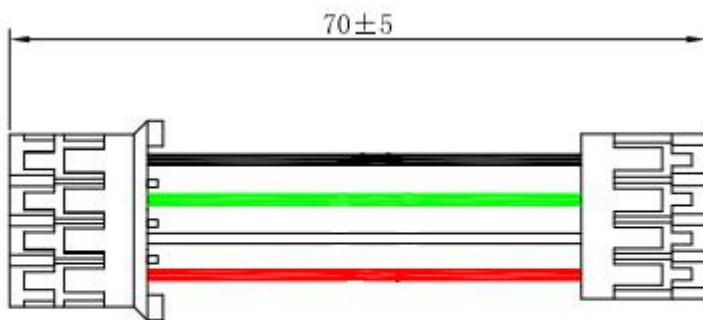


**Back**



## 5、Wiring:

PH2.0-4P/SAN2.0-4P



## 6、Packing:

TBD.

## 7. Label

The outside information of each carton as follows:

Manufacturer'S code:

Order Number:

Material Specification:

Raw numbers:

Production date:

Delivery Quantity:

Delivery Date:

Guarantee period:

Remark:

## 8、Precaution:

- 1、 the input voltage don't exceed the value stated on the specification , in order to avoid damage to the module.
- 2、 The connector can't be reversed , reverse burn the board and affect the use of the product.
- 3、 This is a electronic product, so processing, assembly , operation need to take anti -static measures to avoid affecting product performance.
- 4、 Lens is glass product, place carefully to avoid breakage.
- 5、 Lens is glass-made product, please take anti-dust, loss prevention measures to prevent the image quality.