

## OV5640 模组结构图

| REV. | DATE | EC NO. |  | APP. BY |
|------|------|--------|--|---------|
|      |      |        |  |         |

# CONNECTOR 24PIN DESCRIPTION

| NO. | SYMBOL  |
|-----|---------|
| 1   | STROBE  |
| 2   | AGND    |
| 3   | SIO-D   |
| 4   | AVDD    |
| 5   | SIO-C   |
| 6   | RESET   |
| 7   | VSYNC   |
| 8   | PWDN    |
| 9   | HREF    |
| 10  | DVDD    |
| 11  | DOVDD   |
| 12  | Y9/MDP1 |
| 13  | XCLK    |
| 14  | Y8/MDN1 |
| 15  | DGND    |
| 16  | Y7/MCP  |
| 17  | PCLK    |
| 18  | Y6/MCN  |
| 19  | Y2      |
| 20  | Y5/MDPO |
| 21  | Y3      |
| 22  | Y4/MDNO |
| 23  | AF-VDD  |
| 24  | AF-GND  |

The image contains three technical views of a connector:

- TOP VIEW:** Shows a square footprint with a central circular lens area. Dimensions include 8.5mm width, 6.6mm height, and a 12.5mm base width. Labels indicate "Protect film", "PI substrate", and "PI glue". A note mentions "Micro pin array".
- SIDE VIEW:** Shows the profile of the connector. Key dimensions include a total height of 4.8 ± 0.2 mm (micro pin array state), 4.92 ± 0.2 mm (normal pin array state), 0.05 mm thickness of the back layer, 0.2 mm copper plate, 0.12 mm FPC, and 0.3 mm PI + FPC.
- BOTTOM VIEW:** Shows the underside of the connector. It features a yellow hatched rectangular area labeled "双面铜箔" (Double-sided copper foil) with dimensions 7.5mm by 7.5mm. The overall width is 12.5mm. Pin pitch dimensions are shown as 0.5mm and 0.3mm.

\* 未注公差为：±0.1mm

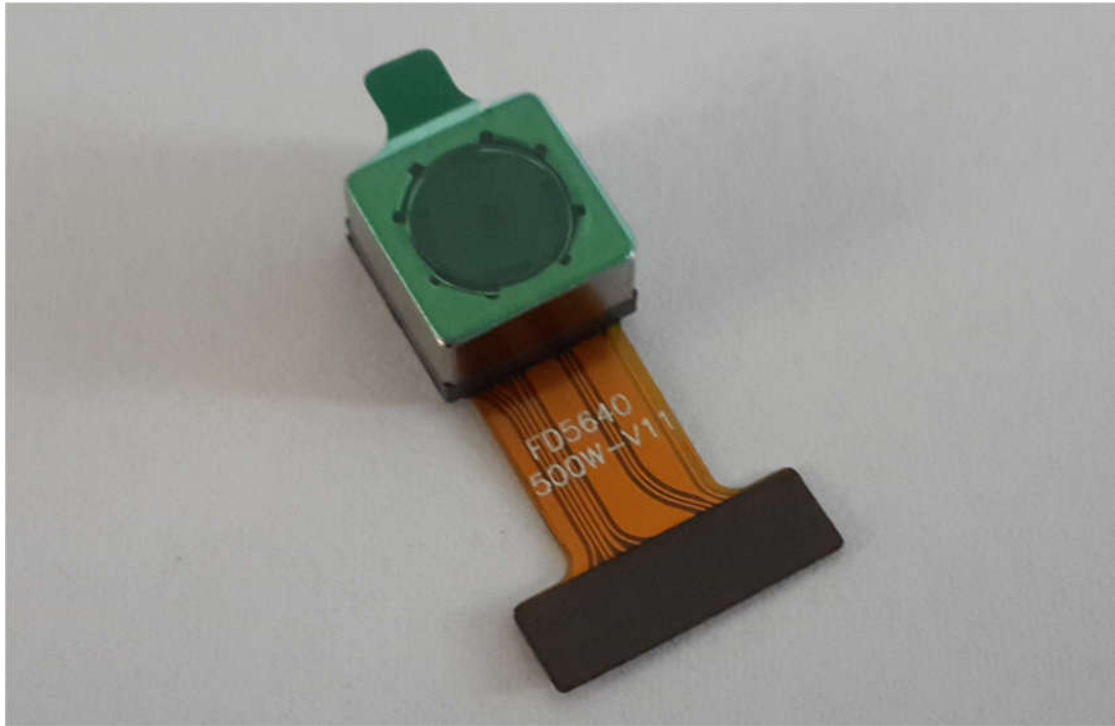
| Lens parameter     |                     |                 |            |
|--------------------|---------------------|-----------------|------------|
| 焦距(EFL)            | 2.7mm               | 像素(Array Size)  | 2592X1944  |
| 光圈(F.NO)           | 2.8                 | 镜头类型(Lens Size) | 1/4inch    |
| 视场角(View Angle)    | 66°                 | 数字电路电压(DVDD)    | 1.5V       |
| 畸变(Distortion)     | < 0.4%              | 模拟电路电压(AVDD)    | 2.6Vto3.0V |
| 景深(Focusing Range) | 20cm ~0.6M(ATO. 6M) | 接口电路电压(DOVDD)   | 1.8V/2.8V  |
| 感光芯片(Chip Type)    | OV5640 SENSOR       | 接口电路电压(AF-VDD)  | 2.8Vto3.3V |

| ITEM   | PART NAME | DWG NO. | QTY | MATERIAL REMARKS |
|--|-----------|---------|-----|------------------|
| TITLE : FD5640-500W-V11  |           |         |     |                  |
| DRAWING :  |           |         |     | TREATMENT :      |
| UNSPECIFIED TOL. DIM. IN : IS / BS / AS PROJECT NO. :                              |           |         |     |                  |
| DIM. IN : KING DIM. NO. : / /  |           |         |     |                  |
| APP. BY : / / C.D. NO. :   |           |         |     |                  |
| ALL DIMENSION IN MM REMOVE ALL BURRS INSURE SHARP EDGES DO NOT SCALE SHEET OF P1/1 |           |         |     |                  |

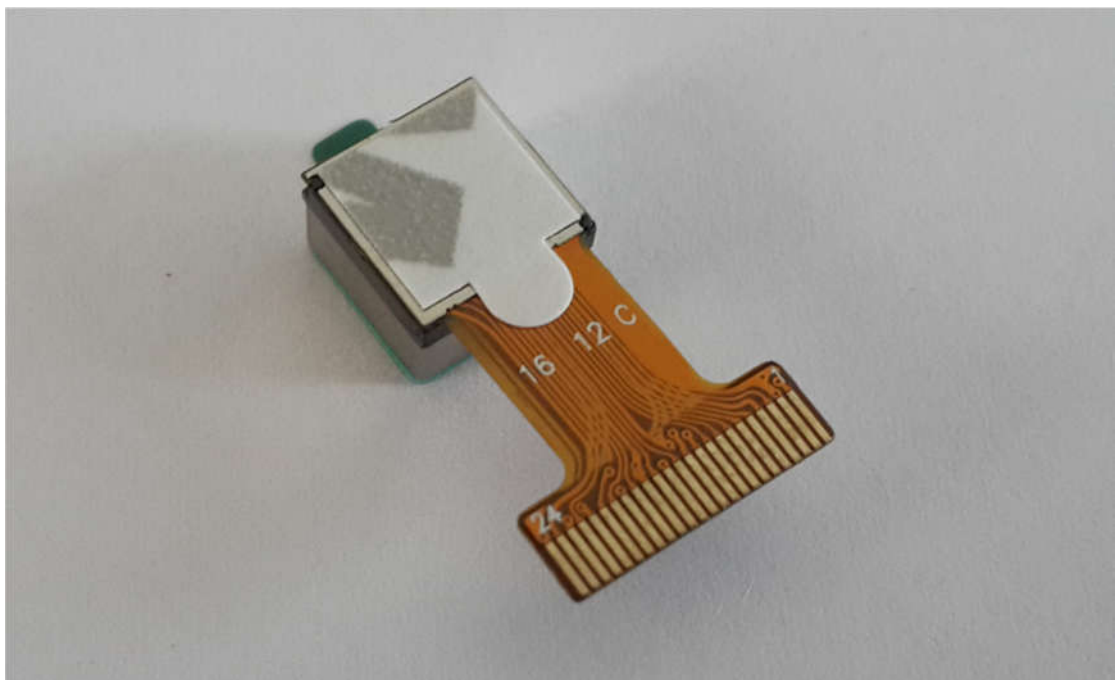
## OV5640 模组引脚说明

| Name   | Type                      | Description   | Name   | Type   | Description  |
|--------|---------------------------|---|--------|--------|--|
| STROBE | I/O                       | Strobe output   | XCLK1  | Input  | System clock input   |
| AGND   | Ground                    | Ground for analog circuit   | Y6     | I/O    | Video port output bit[6]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| SIO_D  | I/O                       | SCCB serial interface data I/O  | DGND   | Ground | Ground for digital video port  |
| AVDD   | Power                     | Power for analog circuit  | Y5     | I/O    | Video port output bit[5]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| SIO_C  | Input                     | SCCB serial interface clock input<br>Note: There is no internal pull-up/pull-down resistor.                 | PCLK   | I/O    | Pixel clock output<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor.       |
| RESET  | Function<br>(Default = 0) | Clears all registers and resets them to their default values. Active low, internal pull-down resistor.      | Y4     | I/O    | Video port output bit[4]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| VSYNC  | I/O                       | Vertical synchronization output<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. | Y0     | I/O    | Video port output bit[0]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| PWDN   | Input                     | Power-down mode enable, active high<br>Note: There is an internal pull-down resistor.                       | Y3     | I/O    | Video port output bit[3]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| HREF   | I/O                       | Horizontal reference output<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor.     | Y1     | I/O    | Video port output bit[1]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| DVDD   | Power                     | Sensor digital power (Core)   | Y2     | I/O    | Video port output bit[2]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor. |
| DOVDD  | Power                     | Power for digital video port  | AF-VDD | -      | Automatic zoom power   |
| Y7     | I/Ot                      | Video port output bit[7]<br>Default: Input<br>Note: There is no internal pull-up/pull-down resistor.        | AF-GND | -      | Automatic zoom power ground  |

## OV5640 模组实物图



正面



背面（24PIN，引脚间距为 0.5MM）