

YDS-U7MF-OV7251 V1.0 NIR

**0.3MP OmniVision OV7251 Global Shutter MIPI Interface No IR Filter
Fixed Focus Camera Module**



Front View



Back View

Specifications

| | |
|---------------------------------|--------------------------------------|
| Camera Module No. | YDS-U7MF-OV7251 V1.0 NIR |
| Resolution | 0.3MP |
| Image Sensor | OV7251 Global Shutter |
| Sensor Type | 1/7.5" |
| Pixel Size | 3.0 um x 3.0 um |
| EFL | 1.84 mm |
| F.NO | 2.55 |
| Pixel | 640 x 480 |
| View Angle | 100.0°(DFOV) 84.0°(HFOV) 44.0°(VFOV) |
| Lens Dimensions | 8.00 x 8.00 x 12.50 mm |
| Module Size | 100.00 x 10.00 mm |
| Module Type | Fixed Focus |
| Interface | MIPI |
| Auto Focus VCM Driver IC | None |
| Lens Model | YDS-LENS-50202A1 |
| Lens Type | No IR Filter Lens |
| Operating Temperature | -30°C to +70°C |
| Mating Connector | AXT524124 |



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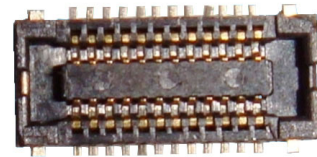
Top View



Side View



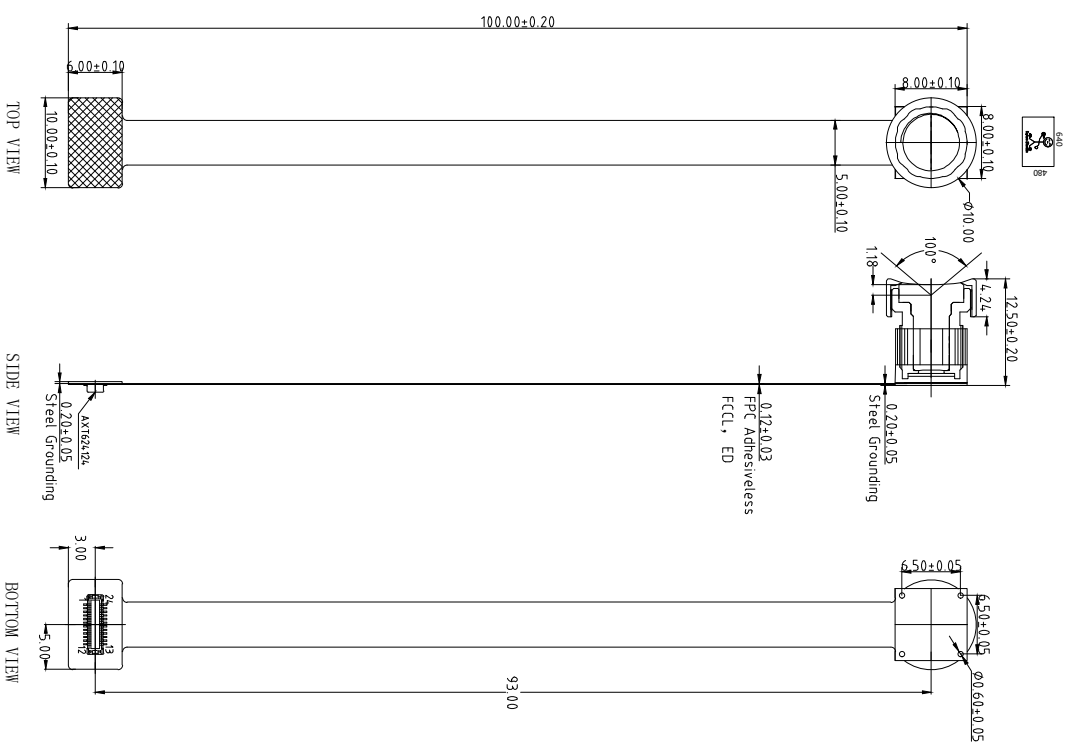
Bottom View



Mating Connector

| Version | Information | Date |
|---------|---------------|----------|
| V1.0 | First Version | 7-5-2021 |

| | |
|----|-----------|
| 1 | SDA |
| 2 | SCL |
| 3 | DOVDD1.8V |
| 4 | MCP |
| 5 | MCN |
| 6 | GND |
| 7 | MDP |
| 8 | MDN |
| 9 | GND |
| 10 | STROBE |
| 11 | ULPM |
| 12 | GND |
| 13 | PWM |
| 14 | NC |
| 15 | GND |
| 16 | FSIN |
| 17 | NC |
| 18 | DVDD1.5V |
| 19 | XCLK |
| 20 | NC |
| 21 | RESET |
| 22 | AVDD2.8V |
| 23 | NC |
| 24 | GND |



Parameters:

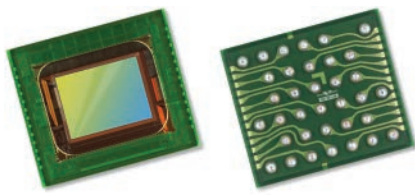
1、Sensor specification:

Image Sensor: OV7251
 Pixel: $3\mu\text{m} \times 3\mu\text{m}$
 Lens Type: 1/7.5
 Important Voltage Description: DVDD1.5V (external power supply);

2、Lens specification:

FOV: $100^\circ(\text{D}); 84^\circ(\text{H}); 44^\circ(\text{V})$;
 F/NO: 2.55
 TV distortion: $< -13.5\%$
 Focal length: 184mm
 Composition: 5G

| | | | |
|-------------|-------|------------------|----------------------|
| Designed By | Kevin | Model Name: | UTMF-OV7251 V1.0 NIR |
| Checked By | Aouly | Projection Type: | Third Angle |
| | | Unit: | mm |
| | | Scale: | 1:1 |
| | | Material: | ----- |
| | | Sheet: | 1 of 1 |
| | | Version: | 1/0 |



OV7251 VGA product brief



Low Power and Compact CameraChip™ Sensor with Industry's Smallest Global Shutter Pixel



available in a lead-free package

The OV7251 is a small form factor, low power CameraChip™ sensor that uses a global shutter to reduce or eliminate unwanted image artifacts, which occur with traditional rolling shutter image sensors as a result of motion during image capture. The sensor's global shutter and excellent low-light sensitivity allow it to be used for any application that has a need for gesture detection, head and eye tracking, and depth and motion detection.

The OV7251's compact form factor makes it a highly attractive camera solution for space-constrained applications such as head-mounted displays, smartphones, tablets, notebooks and Ultrabooks. Likewise, the sensor's low-power consumption makes it an ideal dedicated gesture sensor for similar application areas.

Leveraging the industry's smallest global shutter pixel, the black and white OV7251 is capable of capturing VGA (640x480) resolution video at 120 frames per

second (fps), QVGA (320x240) at 180 fps with binning, and QQVGA (160x120) at 360 fps with binning and skipping. The OV7251's high frame rates make it an ideal solution for low-latency machine vision applications.

The 1/7.5-inch OV7251 features multiple low-power modes, including light sensing mode and ultra-low power standby mode. In light sensing mode, the OV7251 behaves like an Ambient Light Sensor (ALS), which wakes the sensor up from "sleep mode" only when a change in light has been detected. Similarly, in ultra-low power mode, the sensor can reduce the resolution and frame rates to further reduce power consumption.

Find out more at www.ovt.com.



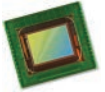
Applications

- Computer Vision
- 3D Systems
- Gesture Recognition
- Feature Tracking

Product Features

- improved shutter efficiency for machine vision applications
- integral 850 nm bandpass filter
- 3 μm x 3 μm pixel with OmniPixel³-GS technology
- automatic black level calibration (ABLC)
- programmable controls for:
 - frame rate
 - mirror and flip
 - cropping
 - windowing
- support output formats: 8/10-bit RAW
- support for image sizes:
 - 640 x 480
 - 320 x 240
 - 160 x 120
- fast mode switching
- supports horizontal and vertical 2:1 and 4:1 monochrome subsampling
- supports 2x2 monochrome binning
- one-lane MIPI serial output interface
- one-lane LVDS serial output interface
- embedded 256 bits of one-time programmable (OTP) memory for part identification
- two on-chip phase lock loops (PLLs)
- built-in 1.5V regulator for core
- PWM
- built-in strobe control

OV7251



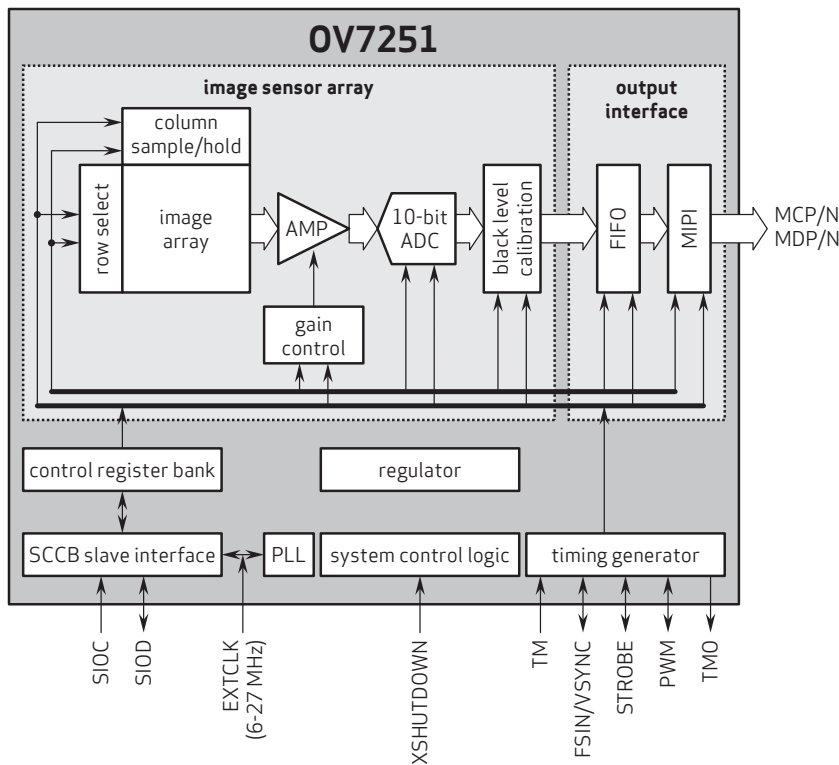
Ordering Information

- OV7251-A35A-1G (b&w, lead-free, 35-pin CSP)
- OV7251-A35A-2B (b&w, improved PLS, lead-free, 35-pin CSP)
- OV7251-G04A-1G (b&w, reconstructed wafer with good die)
- OV7251-G04A-2B (b&w, improved PLS, reconstructed wafer with good die)
- OV7251-A35A-1J (b&w, lead-free, 35-pin CSP, black mask)

Technical Specifications

- active array size: 640 x 480
- maximum image transfer rate:
 - 640 x 480: 120 fps
- power supply:
 - analog: 2.8V (nominal)
 - core: 1.5V (optional)
 - I/O: 1.8V (nominal)
- power requirements:
 - active: 119 mW @ 120 fps, VGA output
 - standby: 15 μA for AVDD, 40 μA for DOVDD without input clock, 700 μA for DOVDD with input clock
 - XSHUTDOWN: 5 μA for AVDD, 5 μA for DOVDD
- output formats: 10-bit B&W RAW
- temperature range:
 - operating: -30°C to +70°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- output interface: 1-lane MIPI/LVDS serial output
- lens size: 1/7.5"
- lens chief ray angle: 29° non-linear
- scan mode: progressive
- pixel size: 3 μm x 3 μm
- image area: 1968 μm x 1488 μm

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

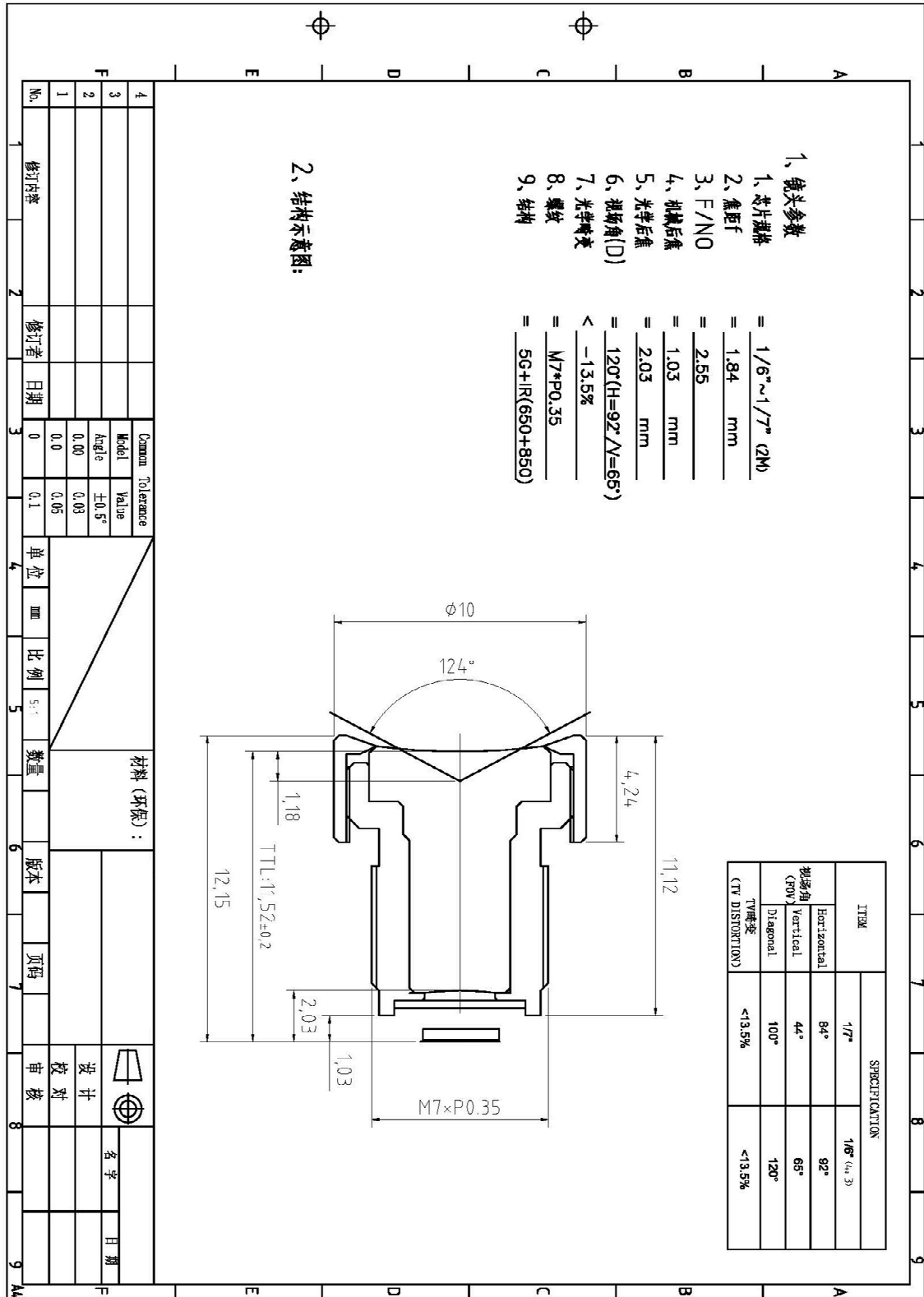
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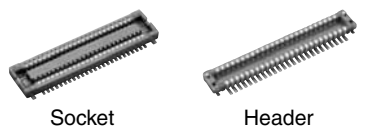
OmniVision

YDS-LENS-50202A1



NARROW-PITCH, THIN AND SLIM CONNECTOR FOR BOARD-TO-FPC CONNECTION

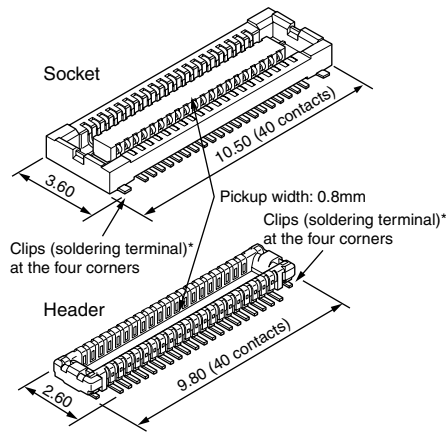
NARROW PITCH (0.4 mm) CONNECTORS F4S SERIES



Compliance with RoHS Directive

FEATURES

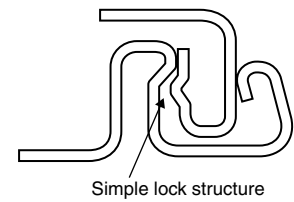
1. Space-saving (3.6 mm widthwise)
 The required space is smaller than our F4 series (40-contact type):
 Socket — 27% smaller,
 Header — 38% smaller
 The small size contributes to the miniaturization of target equipment.



* Clips for preventing the solder joints from being removed

2. Highly reliable
TOUGH CONTACT has strong resistance to adverse environments.
 (See Page 6 for details of the structure)
 Note: If extra resistance to shock caused by dropping is required, we recommend using our previous F4 Series.

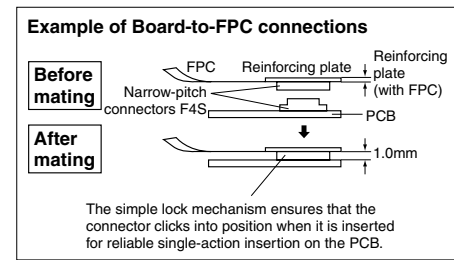
3. The simple lock structure gives tactile feedback that ensures a superior mating/unmating operation feel.



4. Gull-wing type terminals
 The gull-wing type terminals facilitate automatic mounting inspections.
5. Connectors for inspection available
 Connectors for inspection are available that are ideal for modular unit inspection and inspection in device assembly processes.

APPLICATIONS

Compact portable devices “Cellular phones, DVC, Digital cameras, etc”



ORDERING INFORMATION

AXT **4**

5: Narrow Pitch Connector F4S (0.4 mm pitch) Socket
 6: Narrow Pitch Connector F4S (0.4 mm pitch) Header

Number of contacts (2 digits)

Mated height
 <Socket>
 1: For mated height 1.0 mm
 2: For mated height 1.2 mm
 <Header>
 1: For mated height 1.0 mm
 2: For mated height 1.2 mm

Functions
 <Socket, Header>
 2: Without positioning bosses

Surface treatment (Contact portion / Terminal portion)
 <Socket>
 4: Base: Ni plating Surface: Au plating (for Ni barrier available)
 <Header>
 4: Base: Ni plating Surface: Au plating

Note: Please note that models with a mated height of 1.0 mm (7th digit of part number is “1”) and 1.2 mm (7th digit of part number is “2”) are not compatible.

AXT5, 6

PRODUCT TYPES

| Mated height | Number of contacts | Part number | | Packing | |
|--------------|--------------------|-------------|-----------|--------------|--------------|
| | | Socket | Header | Inner carton | Outer carton |
| 1.0mm | 10 | AXT510124 | AXT610124 | 3,000 pieces | 6,000 pieces |
| | 12 | AXT512124 | AXT612124 | | |
| | 14 | AXT514124 | AXT614124 | | |
| | 16 | AXT516124 | AXT616124 | | |
| | 18 | AXT518124 | AXT618124 | | |
| | 20 | AXT520124 | AXT620124 | | |
| | 22 | AXT522124 | AXT622124 | | |
| | 24 | AXT524124 | AXT624124 | | |
| | 26 | AXT526124 | AXT626124 | | |
| | 28 | AXT528124 | AXT628124 | | |
| | 30 | AXT530124 | AXT630124 | | |
| | 32 | AXT532124 | AXT632124 | | |
| | 34 | AXT534124 | AXT634124 | | |
| | 36 | AXT536124 | AXT636124 | | |
| | 38 | AXT538124 | AXT638124 | | |
| | 40 | AXT540124 | AXT640124 | | |
| | 42 | AXT542124 | AXT642124 | | |
| | 44 | AXT544124 | AXT644124 | | |
| | 46 | AXT546124 | AXT646124 | | |
| | 48 | AXT548124 | AXT648124 | | |
| 50 | AXT550124 | AXT650124 | | | |
| 54 | AXT554124 | AXT654124 | | | |
| 60 | AXT560124 | AXT660124 | | | |
| 64 | AXT564124 | AXT664124 | | | |
| 70 | AXT570124 | AXT670124 | | | |
| 80 | AXT580124 | AXT680124 | | | |
| 1.2mm | 10 | AXT510224 | AXT610224 | | |
| | 30 | AXT530224 | AXT630224 | | |
| | 40 | AXT540224 | AXT640224 | | |
| | 50 | AXT550224 | AXT650224 | | |
| | 80 | AXT580224 | AXT680224 | | |

- Notes: 1. Order unit: For mass production: in 1-inner-box (1-reel) units
 Samples for mounting check: in 50-connector units. Please contact our sales office.
 Samples: Small lot orders are possible. Please contact our sales office.
2. The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.
3. Please contact us for connectors having a number of contacts other than those listed above.

SPECIFICATIONS

1. Characteristics

| | Item | Specifications | Conditions |
|---|--|--|---|
| Electrical characteristics | Rated current | 0.3A/contact (Max. 5 A at total contacts) | |
| | Rated voltage | 60V AC/DC | |
| | Breakdown voltage | 150V AC for 1 min. | No short-circuiting or damage at a detection current of 1 mA when the specified voltage is applied for one minute. |
| | Insulation resistance | Min. 1,000M Ω (initial) | Using 250V DC megger (applied for 1 min.) |
| | Contact resistance | Max. 90m Ω | Based on the contact resistance measurement method specified by JIS C 5402. |
| Mechanical characteristics | Composite insertion force | Max. 0.981N/contacts \times contacts (initial) | |
| | Composite removal force | Min. 0.165N/contacts \times contacts | |
| Environmental characteristics | Contact holding force (Socket contact) | Min. 0.49N/contacts | Measuring the maximum force. As the contact is axially pull out. |
| | Ambient temperature | -55°C to +85°C | No freezing at low temperatures. No dew condensation. |
| | Soldering heat resistance | Peak temperature: 260°C or less (on the surface of the PC board around the connector terminals) 300°C within 5 sec. 350°C within 3 sec. | Infrared reflow soldering Soldering iron |
| | Storage temperature | -55°C to +85°C (product only) -40°C to +50°C (emboss packing) | No freezing at low temperatures. No dew condensation. |
| | Thermal shock resistance (header and socket mated) | 5 cycles, insulation resistance min. 100M Ω , contact resistance max. 90m Ω | Sequence 1. -55 $\frac{3}{5}$ °C, 30 minutes 2. ~, Max. 5 minutes 3. 85 $\frac{3}{5}$ °C, 30 minutes 4. ~, Max. 5 minutes |
| | Humidity resistance (header and socket mated) | 120 hours, insulation resistance min. 100M Ω , contact resistance max. 90m Ω | Bath temperature 40 \pm 2°C, humidity 90 to 95% R.H. |
| | Saltwater spray resistance (header and socket mated) | 24 hours, insulation resistance min. 100M Ω , contact resistance max. 90m Ω | Bath temperature 35 \pm 2°C, saltwater concentration 5 \pm 1% |
| H ₂ S resistance (header and socket mated) | 48 hours, contact resistance max. 90m Ω | Bath temperature 40 \pm 2°C, gas concentration 3 \pm 1 ppm, humidity 75 to 80% R.H. | |
| Lifetime characteristics | Insertion and removal life | 50 times | Repeated insertion and removal speed of max. 200 times/hours |
| Unit weight | | 20-contact type: Socket: 0.03 g Header: 0.01 g | |

2. Material and surface treatment

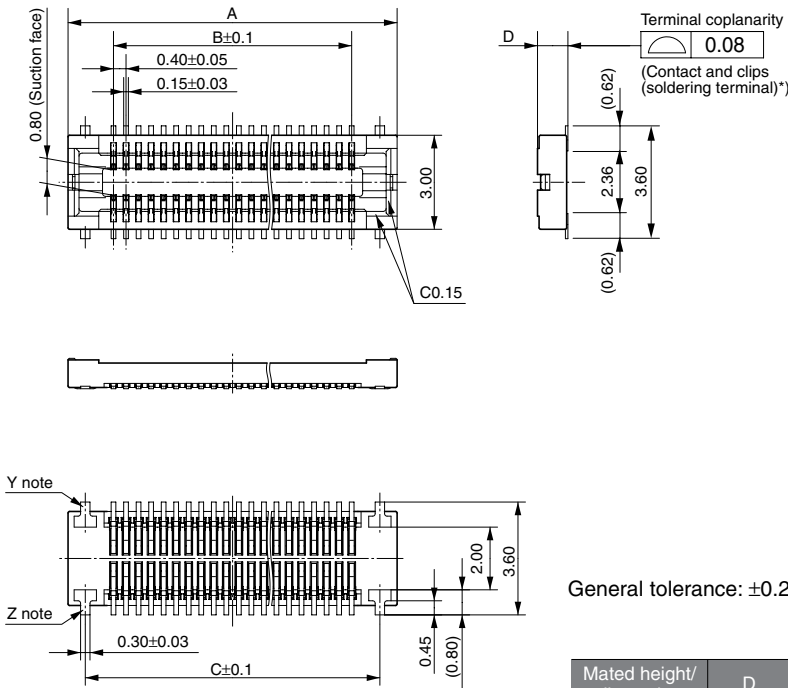
| Part name | Material | Surface treatment |
|------------------|---------------------|--|
| Molded portion | LCP resin (UL94V-0) | — |
| Contact and Post | Copper alloy | Contact portion: Base: Ni plating Surface: Au plating Terminal portion: Base: Ni plating Surface: Au plating (except the terminal tips) The socket terminals close to the portion to be soldered have nickel barriers (exposed nickel portions). Metal clips: Sockets: Base: Ni plating Surface: Pd+Au flash plating (except the terminal tips) Headers: Base: Ni plating Surface: Au plating (except the terminal tips) |

AXT5, 6

DIMENSIONS (Unit: mm) The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://panasonic-electric-works.net/ac>

Socket (Mated height: 1.0 mm and 1.2 mm)

CAD Data



General tolerance: ±0.2

| Mated height/ dimension | D |
|----------------------------|------|
| 1.0mm | 0.97 |
| 1.2mm | 1.17 |

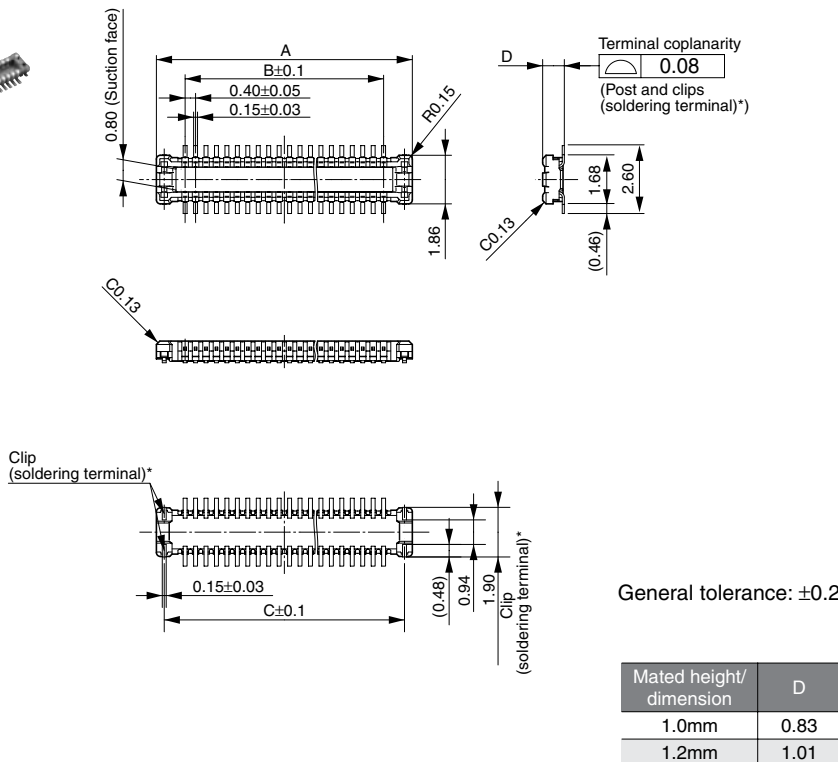
Note: Since the clip (soldering terminal)* has a single-piece construction, sections Y and Z are electrically connected.

Dimension table (mm)

| Number of contacts/ dimension | A | B | C |
|----------------------------------|------|------|------|
| 10 | 4.5 | 1.6 | 3.4 |
| 12 | 4.9 | 2.0 | 3.8 |
| 14 | 5.3 | 2.4 | 4.2 |
| 16 | 5.7 | 2.8 | 4.6 |
| 18 | 6.1 | 3.2 | 5.0 |
| 20 | 6.5 | 3.6 | 5.4 |
| 22 | 6.9 | 4.0 | 5.8 |
| 24 | 7.3 | 4.4 | 6.2 |
| 26 | 7.7 | 4.8 | 6.6 |
| 28 | 8.1 | 5.2 | 7.0 |
| 30 | 8.5 | 5.6 | 7.4 |
| 32 | 8.9 | 6.0 | 7.8 |
| 34 | 9.3 | 6.4 | 8.2 |
| 36 | 9.7 | 6.8 | 8.6 |
| 38 | 10.1 | 7.2 | 9.0 |
| 40 | 10.5 | 7.6 | 9.4 |
| 42 | 10.9 | 8.0 | 9.8 |
| 44 | 11.3 | 8.4 | 10.2 |
| 46 | 11.7 | 8.8 | 10.6 |
| 48 | 12.1 | 9.2 | 11.0 |
| 50 | 12.5 | 9.6 | 11.4 |
| 54 | 13.3 | 10.4 | 12.2 |
| 60 | 14.5 | 11.6 | 13.4 |
| 64 | 15.3 | 12.4 | 14.2 |
| 70 | 16.5 | 13.6 | 15.4 |
| 80 | 18.5 | 15.6 | 17.4 |

Header (Mated height: 1.0 mm and 1.2 mm)

CAD Data



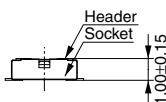
General tolerance: ±0.2

| Mated height/ dimension | D |
|----------------------------|------|
| 1.0mm | 0.83 |
| 1.2mm | 1.01 |

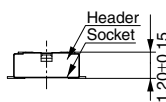
Dimension table (mm)

| Number of contacts/ dimension | A | B | C |
|----------------------------------|------|------|------|
| 10 | 3.8 | 1.6 | 3.2 |
| 12 | 4.2 | 2.0 | 3.6 |
| 14 | 4.6 | 2.4 | 4.0 |
| 16 | 5.0 | 2.8 | 4.4 |
| 18 | 5.4 | 3.2 | 4.8 |
| 20 | 5.8 | 3.6 | 5.2 |
| 22 | 6.2 | 4.0 | 5.6 |
| 24 | 6.6 | 4.4 | 6.0 |
| 26 | 7.0 | 4.8 | 6.4 |
| 28 | 7.4 | 5.2 | 6.8 |
| 30 | 7.8 | 5.6 | 7.2 |
| 32 | 8.2 | 6.0 | 7.6 |
| 34 | 8.6 | 6.4 | 8.0 |
| 36 | 9.0 | 6.8 | 8.4 |
| 38 | 9.4 | 7.2 | 8.8 |
| 40 | 9.8 | 7.6 | 9.2 |
| 42 | 10.2 | 8.0 | 9.6 |
| 44 | 10.6 | 8.4 | 10.0 |
| 46 | 11.0 | 8.8 | 10.4 |
| 48 | 11.4 | 9.2 | 10.8 |
| 50 | 11.8 | 9.6 | 11.2 |
| 54 | 12.6 | 10.4 | 12.0 |
| 60 | 13.8 | 11.6 | 13.2 |
| 64 | 14.6 | 12.4 | 14.0 |
| 70 | 15.8 | 13.6 | 15.2 |
| 80 | 17.8 | 15.6 | 17.2 |

• Socket and Header are mated



Mated height: 1.0 mm



Mated height: 1.2 mm



YDS CAMERA MODULE

your best camera partner

Camera Module Pinout Definition Reference Chart

| OmniVision | Sony | Samsung | On-Semi | Aptina | Himax | GalaxyCore | PixArt | SmartSens | Sensors |
|-------------------------------|--|---|-------------------------|---|------------------------------------|------------|--------|-----------|---------|
| Pin Signal | | Description | | | | | | | |
| DGND | GND | ground for digital circuit | | | | | | | |
| AGND | | ground for analog circuit | | | | | | | |
| PCLK | DCK | DVP PCLK output | | | | | | | |
| XCLR | PWDN | XSHUTDOWN | STANDBY | power down active high with internal pull-down resistor | | | | | |
| MCLK | XVCLK | XCLK | INCK | system input clock | | | | | |
| RESET | RST | reset active low with internal pull-up resistor | | | | | | | |
| NC | NULL | no connect | | | | | | | |
| SDA | SIO_D | SIOD | SCCB data | | | | | | |
| SCL | SIO_C | SIOC | SCCB input clock | | | | | | |
| VSYNC | XVS | FSYNC | DVP VSYNC output | | | | | | |
| HREF | XHS | DVP HREF output | | | | | | | |
| DOVDD | power for I/O circuit | | | | | | | | |
| AFVDD | power for VCM circuit | | | | | | | | |
| AVDD | power for analog circuit | | | | | | | | |
| DVDD | power for digital circuit | | | | | | | | |
| STROBE | FSTROBE | strobe output | | | | | | | |
| FSIN | synchronize the VSYNC signal from the other sensor | | | | | | | | |
| SID | SCCB last bit ID input | | | | | | | | |
| ILPWM | mechanical shutter output indicator | | | | | | | | |
| FREX | frame exposure / mechanical shutter | | | | | | | | |
| GPIO | general purpose inputs | | | | | | | | |
| SLASEL | I2C slave address select | | | | | | | | |
| AFEN | CEN chip enable active high on VCM driver IC | | | | | | | | |
| MIPI Interface | | | | | | | | | |
| MDN0 | DN0 | MD0N | DATA_N | DMO1N | MIPI 1st data lane negative output | | | | |
| MDP0 | DP0 | MD0P | DATA_P | DMO1P | MIPI 1st data lane positive output | | | | |
| MDN1 | DN1 | MD1N | DATA2_N | DMO2N | MIPI 2nd data lane negative output | | | | |
| MDP1 | DP1 | MD1P | DATA2_P | DMO2P | MIPI 2nd data lane positive output | | | | |
| MDN2 | DN2 | MD2N | DATA3_N | DMO3N | MIPI 3rd data lane negative output | | | | |
| MDP2 | DP2 | MD2P | DATA3_P | DMO3P | MIPI 3rd data lane positive output | | | | |
| MDN3 | DN3 | MD3N | DATA4_N | DMO4N | MIPI 4th data lane negative output | | | | |
| MDP3 | DP3 | MD3P | DATA4_P | DMO4P | MIPI 4th data lane positive output | | | | |
| MCN | CLKN | CLK_N | DCKN | MIPI clock negative output | | | | | |
| MCP | CLKP | MCP | CLK_P | DCKN | MIPI clock positive output | | | | |
| DVP Parallel Interface | | | | | | | | | |
| D0 | DO0 | Y0 | DVP data output port 0 | | | | | | |
| D1 | DO1 | Y1 | DVP data output port 1 | | | | | | |
| D2 | DO2 | Y2 | DVP data output port 2 | | | | | | |
| D3 | DO3 | Y3 | DVP data output port 3 | | | | | | |
| D4 | DO4 | Y4 | DVP data output port 4 | | | | | | |
| D5 | DO5 | Y5 | DVP data output port 5 | | | | | | |
| D6 | DO6 | Y6 | DVP data output port 6 | | | | | | |
| D7 | DO7 | Y7 | DVP data output port 7 | | | | | | |
| D8 | DO8 | Y8 | DVP data output port 8 | | | | | | |
| D9 | DO9 | Y9 | DVP data output port 9 | | | | | | |
| D10 | DO10 | Y10 | DVP data output port 10 | | | | | | |
| D11 | DO11 | Y11 | DVP data output port 11 | | | | | | |

www.YDSCAM.com sales@ydscam.com Phone (WeChat, QQ): (+86) 177 2732 6718

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Cameras Applications



Camera Reliability Test

| Reliability Inspection Item | | Testing Method | Acceptance Criteria | |
|-----------------------------|-----------------------------|---|-------------------------|-------------------------|
| Category | Item | | | |
| Environmental | Storage Temperature | High 60°C 96 Hours | Temperature Chamber | No Abnormal Situation |
| | | Low -20°C 96 Hours | Temperature Chamber | No Abnormal Situation |
| | Operation Temperature | High 60°C 24 Hours | Temperature Chamber | No Abnormal Situation |
| | | Low -20°C 24 Hours | Temperature Chamber | No Abnormal Situation |
| | Humidity | 60°C 80% 24 Hours | Temperature Chamber | No Abnormal Situation |
| | Thermal Shock | High 60°C 0.5 Hours Low -20°C 0.5 Hours Cycling in 24 Hours | Temperature Chamber | No Abnormal Situation |
| Physical | Drop Test (Free Falling) | Without Package 60cm | 10 Times on Wood Floor | Electrically Functional |
| | | With Package 60cm | 10 Times on Wood Floor | Electrically Functional |
| | Vibration Test | 50Hz X-Axis 2mm 30min | Vibration Table | Electrically Functional |
| | | 50Hz Y-Axis 2mm 30min | Vibration Table | Electrically Functional |
| | | 50Hz Z-Axis 2mm 30min | Vibration Table | Electrically Functional |
| | Cable Tensile Strength Test | Loading Weight 4 kg 60 Seconds Cycling in 24 Hours | Tensile Testing Machine | Electrically Functional |
| Electrical | ESD Test | Contact Discharge 2 KV | ESD Testing Machine | Electrically Functional |
| | | Air Discharge 4 KV | ESD Testing Machine | Electrically Functional |
| | Aging Test | On/Off 30 Seconds Cycling in 24 Hours | Power Switch | Electrically Functional |
| | USB Connector | On/Off 250 Times | Plug and Unplug | Electrically Functional |



Camera Inspection Standard

| Inspection Item | | Inspection Method | Standard of Inspection | | |
|------------------|----------|-------------------|-----------------------------|--|---------------------------------|
| Category | Item | | | | |
| Appearance | FPC/ PCB | Color | The Naked Eye | Major Difference is Not Allowed. | |
| | | Be Torn/Chopped | The Naked Eye | Copper Crack Exposure is Not Allowed. | |
| | | Marking | The Naked Eye | Clear, Recognizable (Within 30cm Distance) | |
| | Holder | Scratches | The Naked Eye | The Inside Crack Exposure is Not Allowed | |
| | | Gap | The Naked Eye | Meet the Height Standard | |
| | | Screw | The Naked Eye | Make Sure Screws Are Presented (If Any) | |
| | | Damage | The Naked Eye | The Inside Crack Exposure is Not Allowed | |
| | Lens | Scratch | The Naked Eye | No Effect On Resolution Standard | |
| | | Contamination | The Naked Eye | No Effect On Resolution Standard | |
| | | Oil Film | The Naked Eye | No Effect On Resolution Standard | |
| | | Cover Tape | The Naked Eye | No Issue On Appearance. | |
| | Function | Image | No Communication | Test Board | Not Allowed |
| | | | Bright Pixel | Black Board | Not Allowed In the Image Center |
| Dark Pixel | | | White board | Not Allowed In the Image Center | |
| Blurry | | | The Naked Eye | Not Allowed | |
| No Image | | | The Naked Eye | Not Allowed | |
| Vertical Line | | | The Naked Eye | Not Allowed | |
| Horizontal Line | | | The Naked Eye | Not Allowed | |
| Light Leakage | | | The Naked Eye | Not Allowed | |
| Blinking Image | | | The Naked Eye | Not Allowed | |
| Bruise | | | Inspection Jig | Not Allowed | |
| Resolution | | | Chart | Follows Outgoing Inspection Chart Standard | |
| Color | | | The Naked Eye | No Issue | |
| Noise | | | The Naked Eye | Not Allowed | |
| Corner Dark | | | The Naked Eye | Less Than 100px By 100px | |
| Color Resolution | | | The Naked Eye | No Issue | |
| Dimension | Height | The Naked Eye | Follows Approval Data Sheet | | |
| | Width | The Naked Eye | Follows Approval Data Sheet | | |
| | Length | The Naked Eye | Follows Approval Data Sheet | | |
| | Overall | The Naked Eye | Follows Approval Data Sheet | | |

YDSCAM Package Solutions

YDS Camera Module



Complete with Lens Protection Film



Tray with Grid and Space



Place Cameras on the Tray



YDSCAM Package Solutions

Full Tray of Cameras



Cover Tray with Lid



Place Tray into Anti-Static Bag



Vacuum the Anti-Static Bag



YDSCAM Package Solutions

Sealed Vacuum Anti-Static Bag with Labels

1. Model and Description 2. Quantity 3. Manufacturing Date Code 4. Caution



YDSCAM Package Solutions

Place Foam Sheets Between Tray Bags



Foam Sheets are Larger Than Trays



Place Foam Sheets and Trays into Box



Foam Sheets are Tightly Fitting in Box



Seal the Carbon Box



Label the Carbon Shipping Box





YDSCAM Package Solutions

USB Camera Module

Complete with Lens Protection Film



Place Camera Sample into Anti-Static Bag

Place USB Cameras into Tray



Seal the Tray with Anti-Static Bag

Label the Carbon Shipping Box



YDSCAM Package Solutions

Place Camera Sample into Anti-Static Bag



Place Connectors into Anti-Static Bag



Label the Sample Bags



Place Connectors into Reel



Place Samples into the Carbon Box



Place Connectors into the Carbon Box





YDS CAMERA MODULE

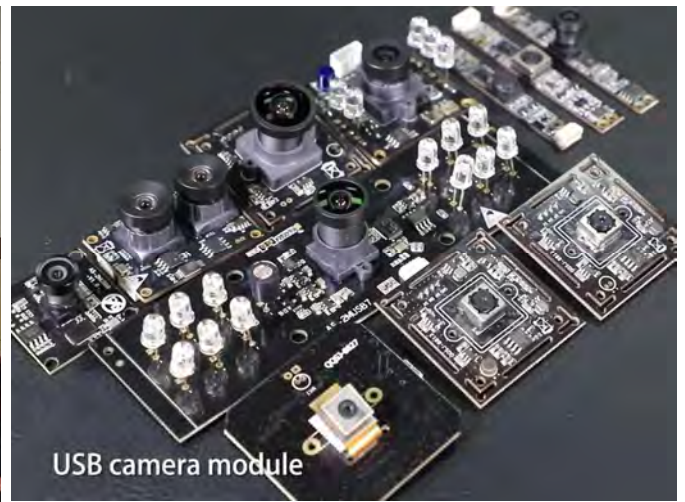
your best camera partner

Company YDSCAM

YingDeShun Co. Ltd. (YDS) was established in 2017, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. YDS is occupying 20,000 square feet automated plants with 100 employees of annual throughput 30,000,000 units cameras.

YDS provides OEM, ODM design, contract manufacturing, and builds the camera products. You may provide the requirements to us, even with a hand draft, our sales and engineering work together to meet your needs. We consider ourselves your last-term partner in developing practical and innovative solutions.

Our team covers everything from initial concept development to mass produced product. YDS specializes in customized camera design, raw material, electronic engineering, firmware/software development, product testing, and packing design. Our experienced strategic supply systems offer a robust and dependable manufacturing capacity for orders of various sizes.



Limited Warranty

YDS provides the following limited warranty if you purchased the Product(s) directly from YDS company or from YDS's website www.YDSCAM.com. Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. YDS guarantees that the Product(s) will be free from defects in materials and workmanship under normal use for a period of one (1) year from the date you receive the product ("Warranty Period").

For all Product(s) that contain or develop material defects in materials or workmanship during the Warranty Period, YDS will, at its sole option, either: (i) repair the Product(s); (ii) replace the Product(s) with a new or refurbished Product(s) (replacement Product(s) being of identical model or functional equivalent); or (iii) provide you a refund of the price you paid for the Product(s).

This Limited Warranty of YDS is solely limited to repair and/or replacement on the terms set forth above. YDS is not reliable or responsible for any subsequent events.



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YDS CAMERA MODULE

your best camera partner

YDS Strength

Powerful Factory



Professional Service



Promised Delivery



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