YDS-OV8865-E602B V2.0
8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module

Front View

Back View

Specifications

Camera Module No.	YDS-OV8865-E602B V2.0
Resolution	8MP
Image Sensor	OV8865
Sensor Type	1/3.2"
Pixel Size	1.4 um x 1.4 um
EFL	3.85 mm
F.NO	2.20
Pixel	3264 x 2448
View Angle	72.9°(DFOV) 61.1°(HFOV) 47.9°(VFOV)
Lens Dimensions	8.50 x 8.50 x 5.40 mm
Module Size	22.52 x 8.50 mm
Module Type	Auto Focus
Interface	MIPI
Auto Focus VCM Driver IC	DW9714P
Lens Model	YDS-LENS-50008A1
Lens Type	650nm IR Cut
Operating Temperature	-30°C to +85°C
Mating Connector	AXT524124

www.YDSCAM.com   sales@ydscam.com   Phone (WeChat, QQ): (+86) 177 2732 6718
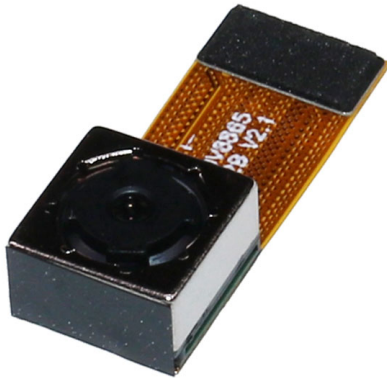
YDS-OV8865-E602B V2.0
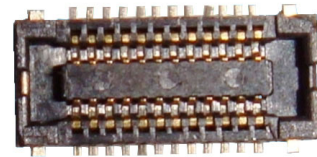## 8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module

Top View

Side View

Bottom View

Mating Connector
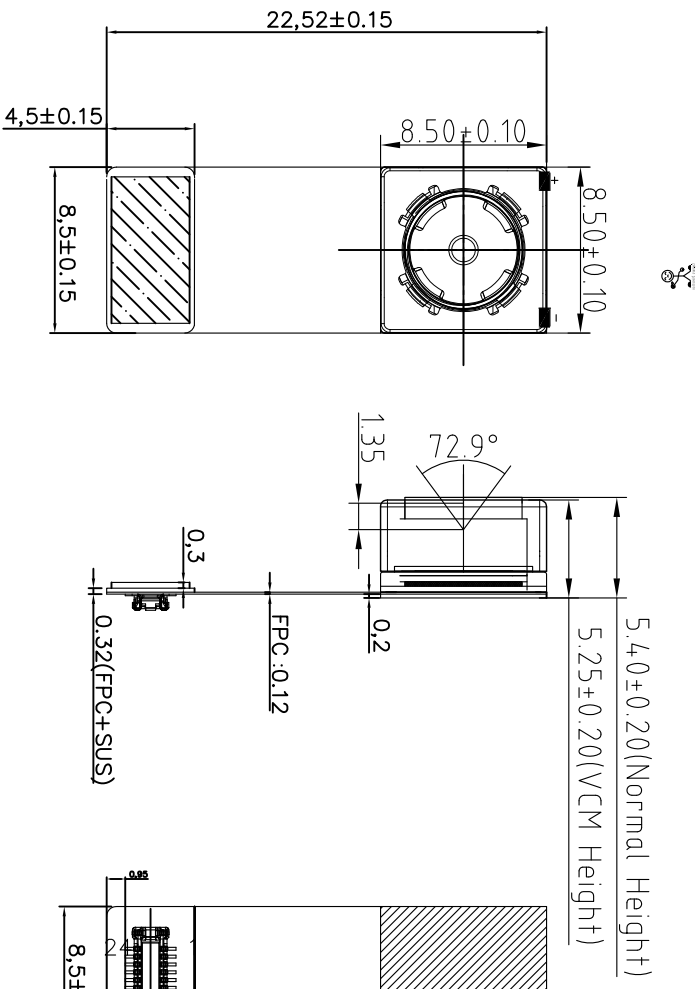
CONNECTOR 24PIN DESCRIPTION

NO.	SIGNAL		
1	GND	A	
2	MDN1		1
3	MDP1		
4	GND		
5	MCN		
6	MCP		
7	GND		
8	MDN0		
9	MDP0		
10	GND		
11	AVDD 2.8V		
12	GND		2
13	MCLK		
14	GND		
15	DOVDD 1.8V		
16	PWDN		
17	SDA		
18	SCL		
19	RESET		
20	GND		
21	DVDD 1.2V		
22	AFVDD 2.8V		3
23	NC		
24	NC		
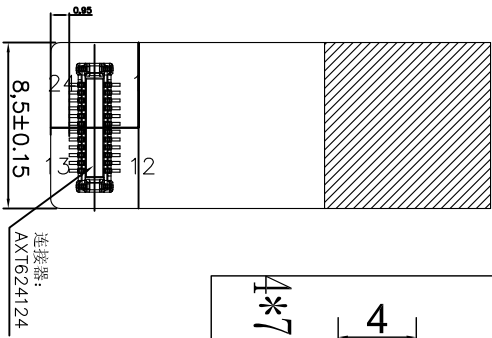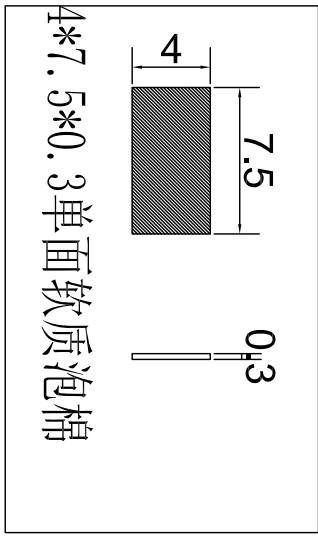
TECHNOLOGY SPEC (技术规范)

焦距 (EFL)	Focal (EFL)	3.85
光圈 (F.NO)		2.2
视场角 (View Angle)		72.9°
畸变 (Distortion)		< 1%
镜头类型 (Lens Size)		1/3.2inch
像素 (Pixels)		3264*2448
感光芯片 (Chip Type)		OV8865
芯片地址 (Sensor I2C) Write:0x6c		
马达驱动 (VCM Driver)		DW9814

SELECT

level dim.	A	B	C	D
~ 5	±0.03	±0.05	±0.08	±0.10
5~10	±0.05	±0.08	±0.10	±0.15
10~~50	±0.08	±0.10	±0.15	±0.20
50~100	±0.10	±0.15	±0.20	±0.25
100~	±0.10%	±0.15%	±0.20%	±0.30%

22,52±0.15
4,5±0.15
8,5±0.15
8.50±0.10
8.50±0.10

72.9°
1.35
0.3
0.2
FPC :0.12
0.32(FPC+SUS)

5.40±0.20(Normal Height)
5.25±0.20(VCM Height)

0.95
8,5±0.15
24
13 12
连接器: AXT624124

4*7.5*0.3单面软质泡棉
4
7.5
0.3

1/0	All	First Release	
REV.	Zone	Description	Approved
Designed By:	Kevin	2018-03-14	Client Name: E602
Checked By:	Feng Liu	2018-03-14	Model Name: OV8865-E602B V2.0
Approved By:	Aouly_Yan	2018-03-14	Projection Type: Third Angle

Unit: mm
Scale: 1:1
Material: ————
Sheet: 1 of 1
Version: 1/0

Kevin 2018-03-14
Approved Date 3

RoHS
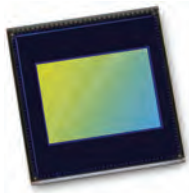
OV8865 8MP product brief

High-Performance, Low-Power 8-Megapixel Image Sensor for Mainstream Smartphones and Tablets

available in a lead-free package

OmniVision's OV8865 is a low-power high-performance 8-megapixel camera solution for mainstream smartphones and tablets. Utilizing an improved 1.4-micron OmniBSI-2™ pixel, the OV8865 delivers best-in-class pixel performance in a smaller, more power efficient package compared to the previous generation OV8835 sensor.

The OV8865 offers a number of performance improvements including a five percent improvement in dynamic range and a 50 percent reduction in dark current, resulting in superior high- and low-light images. Furthermore, the OV8865 consumes considerably less power than the OV8835, achieving the sub 200 mW benchmark preferred by high-end mobile device manufacturers.

The 1/3.2-inch OV8865 supports an active array of 3264 x 2448 (8-megapixels) operating at 30 frames per second (fps) for high-speed photography. The sensor is also capable of capturing 1080p high-definition (HD) video at 30 fps or 720p at 60 fps.

The OV8865 fits into an industry standard 8.5 x 8.5 x 5 mm package.

Find out more at www.ovt.com.

Applications

- Cellular Phones
- Tablets
- PC Multimedia

OV8865

Product Features

- automatic black level calibration (ABLC)
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- static defective pixel canceling
- supports output formats: 10-bit RAW RGB (MIPI)
- supports horizontal and vertical subsampling
- supports images sizes: 3264x2448, 3264x1836, 2816x1584, 1632x1224, 1408x792
- supports 2x2 binning, re-sampling filter
- standard serial SCCB interface
- up to 4-lane MIPI serial output interface
- embedded 1536 bytes one-time programmable (OTP) memory for part identification, etc.
- two on-chip phase lock loops (PLLs)
- programmable I/O drive capability
- built-in temperature sensor
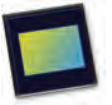
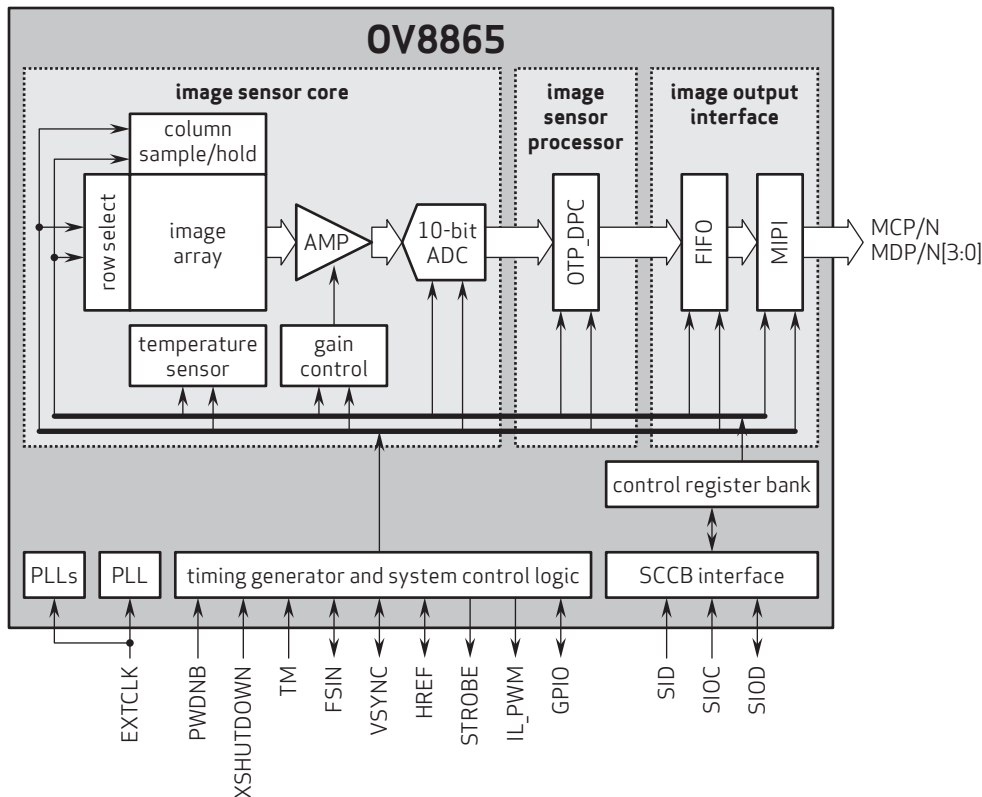# Product Specifications

- **active array size:** 3264 x 2448
- **power supply:**
  - **core:** 1.2V
  - **analog:** 2.8V
  - **I/O:** 1.8V, 2.8V
- **power requirements:**
  - **active:** 196 mW (full resolution @ 30 fps)
  - **XSHUTDOWN:** 5 µW
- **temperature range:**
  - **operating:** -30°C to +85°C junction temperature
  - **stable image:** 0°C to +60°C junction temperature
- **output formats:** 10-bit RAW RGB data
- **lens size:** 1/3.2"
- **lens chief ray angle:** 32.2° non-linear
- **input clock frequency:** 6 - 27 MHz
- **max S/N ratio:** 36.7 dB
- **dynamic range:** 68.8 dB
- **maximum image transfer rate:** 30 fps
- **sensitivity:** 940 mV/lux-sec
- **scan mode:** progressive
- **pixel size:** 1.4 µm x 1.4 µm
- **dark current:** 20 e-/sec @ 60°C junction temperature
- **image area:** 4614.4 µm x 3472 µm
- **die dimensions:** 5850 µm x 5700 µm

Functional Block Diagram

OmniVision

DW9714P
Upgraded Conventional AF Driver IC

FEATURES

120mA output driver with 10-bit resolution DAC

Smart Actuator Control (SAC[TM]) modes

Supply voltage (V_{DD}): 2.3V to 4.3V

I/O voltage (V_{IN}): 1.8V to V_{DD}

Fast mode and Fast mode plus I^{2}C interface compatible

Power On Reset (POR)

Power Down (PD) mode current consumption less than 1uA

Package: 6-pin WLCSP (0.77mm x 1.14mm x 0.30mm)

APPLICATIONS

Mobile camera

Digital still camera

Camcorder

Web camera

Action camera

GENERAL DESCRIPTION

  The DW9714P designed for linear control of Voice Coil Motors (VCM). This device is compatible with DW9714. The DW9714P has a single 10-bit DAC with 120mA output current sink capability. This device features SAC[TM] mode which can minimize the mechanical vibration and achieve very fast mechanical settling time. The SAC[TM] is protected by patent and registered trademark of DONGWOON ANATECH.

  The DW9714P operates from a single 2.3V to 4.3V supply. The internal DAC is controlled via an I^{2}C serial interface that operates at clock rate up to 1MHz. The I^{2}C address for the DW9714P is 0x18. The DW9714P offers PD mode with current consumption less than 1uA.

  The DW9714P can be used for auto focus applications in mobile cameras, digital still cameras, camcorders, web cameras and action cameras.

TYPICAL APPLICATION CIRCUIT
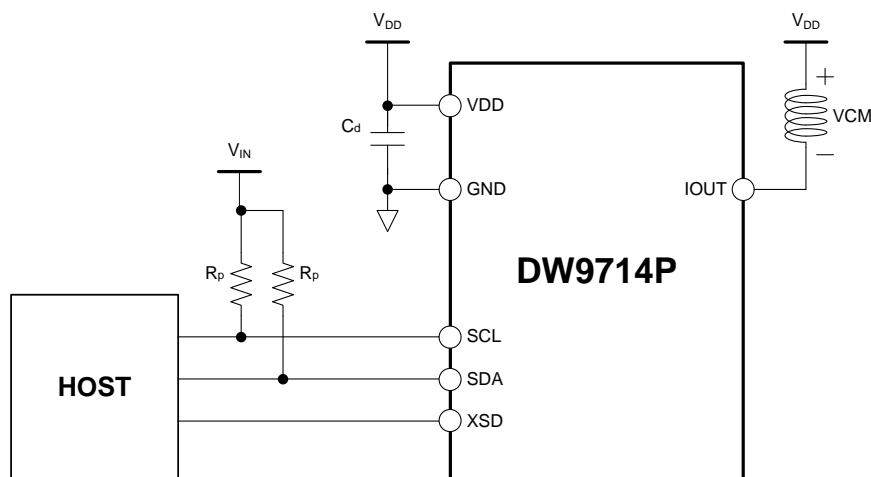
Figure 1. Typical application circuit

YDS-LENS-50008A1

COMPOSITION:5 ELEMENTS,ALL PLASTIC
SENSOR:8M-1/3.2" CMOS(4.57x3.427,DIAGONAL=5.712)
EFLm=3.85
FB=4.38±0.1(AIR,INFINITY)
  =4.45±0.1(INFINITY,WITH 0.21mm IR FILTER)
FNO=2.2±5%
  =4.604±0.1(AT 0.1m,WITH 0.21mm IR FILTER)
FIELD OF VIEW (INFINITE)
  VERTICAL:47.9°(Y'=1.714)
  HORIZONTAL:61.1°(Y'=2.285)
  DIAGONAL:72.9°(Y'=2.856)
TV-DISTORTION(Traditional*2) < 1.5%
RELATIVE ILLUMINANCE=38%(@Y'=2.856)(Ref.)
CHIEF RAY ANGLE < 32.4°
MAXIMUM IMAGE CIRCLE:φ6.17
IR-CUT COATING FILTER:NONE
VCM TYPE:TDK TVF-658
BARREL MATERIAL:PC(BLACK)
PATENT NO.:US8179614

4-40°
50°
2.9
φ5
φ5.1

Light entry area
φ6
76.8°
0.8
1.35
1.05
1.33
3.4±0.05
4.45±0.1(AT ∞)
4.604±0.1(AT 0.1m)
(1.05)
0.21(IR FILTER)
IMAGE PLANE
φ6max
M6.5 P0.25

REV	DESCRIPTION	DSGN	APPD	DATE
TOLERANCE ±0.1/±30'		3RD ANGLE PROJ.N		

M'TL
TREAT
SCALE 10/1
NO.
NAME
PS
DATE DEC/24/12
DRAWN
CHECKED
APPROVED

RoHS

Panasonic
ideas for life

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

NARROW PITCH (0.4 mm) CONNECTORS F4S SERIES
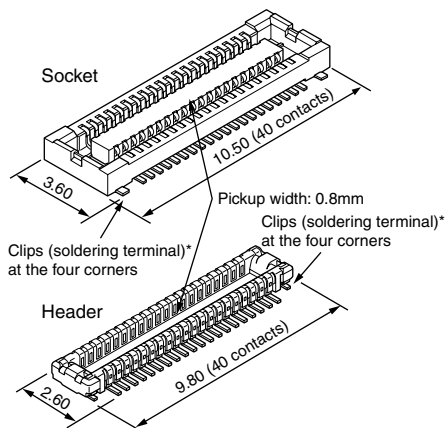
TOUGH CONTACT
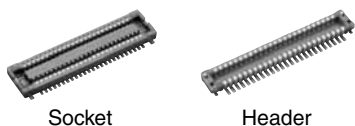
Socket   Header

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.

Socket

10.50 (40 contacts)
3.60
Pickup width: 0.8mm

Clips (soldering terminal)* at the four corners

Clips (soldering terminal)* at the four corners

Header

9.80 (40 contacts)
2.60

* 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)
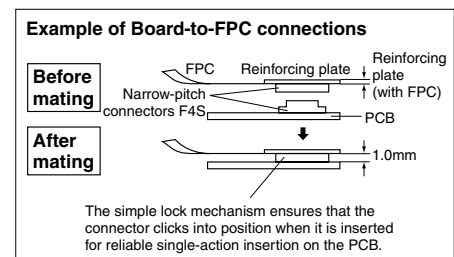Note: If extra resistance to shock caused by dropping is required, we recommend using our previous F4 Series.

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

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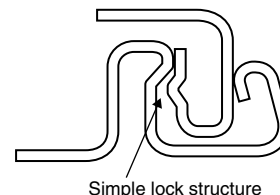
4. Gull-wing type terminals
The gull-wing type terminals facilitate automatic mounting inspections.
5. Connectors for inspection available
Connectors for inspection are available that are ideal for modular unit inspection and inspection in device assembly processes.

APPLICATIONS
Compact portable devices "Cellular phones, DVC, Digital cameras, etc"

Example of Board-to-FPC connections

| Before mating | FPC / Reinforcing plate / Reinforcing plate (with FPC) |
| After mating | Narrow-pitch connectors F4S / PCB / 1.0mm |

The simple lock mechanism ensures that the connector clicks into position when it is inserted for reliable single-action insertion on the PCB.

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　TOUGH CONTACT

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

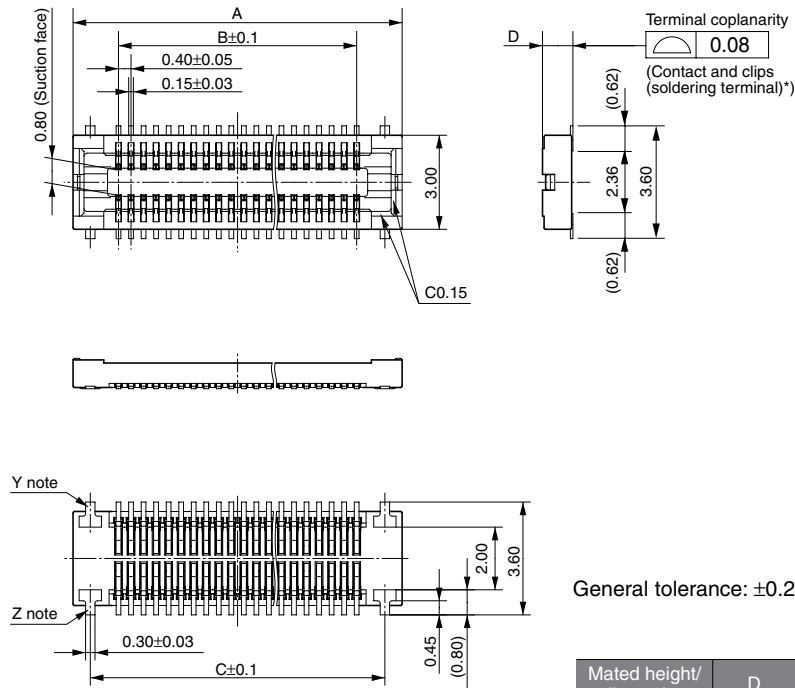|	Item	Specifications	Conditions
Electrical characteristics	Rated current	0.3A/contact (Max. 5 A at total contacts)	
	Rated voltage	60V AC/DC	
	Breakdown voltage	150V AC for 1 min.	No short-circuiting or damage at a detection current of 1 mA when the specified voltage is applied for one minute.
	Insulation resistance	Min. 1,000MΩ (initial)	Using 250V DC megger (applied for 1 min.)
	Contact resistance	Max. 90mΩ	Based on the contact resistance measurement method specified by JIS C 5402.
Mechanical characteristics	Composite insertion force	Max. 0.981N/contacts × contacts (initial)	
	Composite removal force	Min. 0.165N/contacts × contacts	
	Contact holding force (Socket contact)	Min. 0.49N/contacts	Measuring the maximum force. As the contact is axially pull out.
Environmental characteristics	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)	Infrared reflow soldering
		300°C within 5 sec. 350°C within 3 sec.	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. 100MΩ, contact resistance max. 90mΩ	Sequence 1. −55$^{-0}_{-3}$°C, 30 minutes 2. ～, Max. 5 minutes 3. 85$^{+3}_{0}$°C, 30 minutes 4. ～, Max. 5 minutes
	Humidity resistance (header and socket mated)	120 hours, insulation resistance min. 100MΩ, contact resistance max. 90mΩ	Bath temperature 40±2°C, humidity 90 to 95% R.H.
	Saltwater spray resistance (header and socket mated)	24 hours, insulation resistance min. 100MΩ, contact resistance max. 90mΩ	Bath temperature 35±2°C, saltwater concentration 5±1%
	H_2S resistance (header and socket mated)	48 hours, contact resistance max. 90mΩ	Bath temperature 40±2°C, gas concentration 3±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

Terminal coplanarity ⌒ 0.08
(Contact and clips (soldering terminal)*)

General tolerance: ±0.2

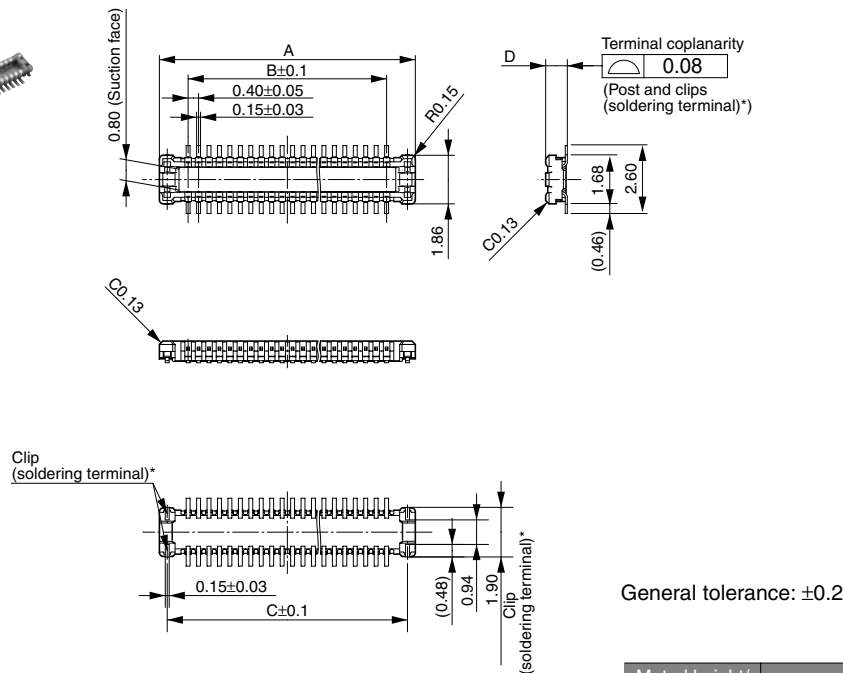| Mated height/ dimension	D
1.0mm	0.97
1.2mm	1.17

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

Terminal coplanarity ⌒ 0.08
(Post and clips (soldering terminal)*)

Clip (soldering terminal)*

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
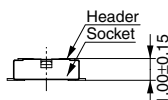
Header
Socket
1.00±0.15
Mated height: 1.0 mm

Header
Socket
1.20±0.15
Mated height: 1.2 mm
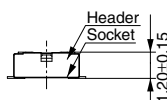
Camera Module Pinout Definition Reference Chart

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

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
Storage Temperature	Low -20°C 96 Hours	Temperature Chamber	No Abnormal Situation
Operation Temperature	High 60°C 24 Hours	Temperature Chamber	No Abnormal Situation
Operation Temperature	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
Drop Test (Free Falling)	With Package 60cm	10 Times on Wood Floor	Electrically Functional
Vibration Test	50Hz X-Axis 2mm 30min	Vibration Table	Electrically Functional
Vibration Test	50Hz Y-Axis 2mm 30min	Vibration Table	Electrically Functional
Vibration Test	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
ESD Test	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

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

YDS CAMERA MODULE

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

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

YDS CAMERA MODULE

your best camera partner

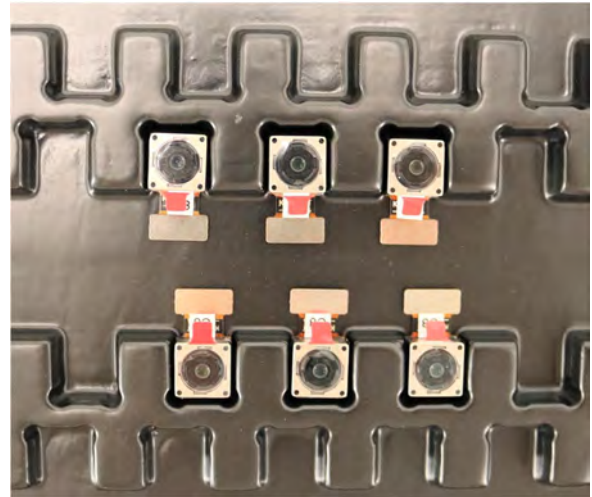## YDSCAM Package Solutions

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

YDS
YDS CAMERA

YDS Model No.

YDS-MAA12-IMX586 V1.0

IMX586, MIPI Interface

Auto Focus, 79.4 Degree

www.ydscam.com MADE IN CHINA

YDS
YDS CAMERA

Tray 1 of 1
100 PIECES

Production Date
20 August 2022

Date Code
2234 (Week 34, 2022)

www.ydscam.com MADE IN CHINA

CAUTION
STATIC SENSITIVE
DEVICES

NOT TO BE HANDLED
BY UNAUTHORISED
PERSONNEL

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

your best camera partner

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

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

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

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

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.

USB camera module
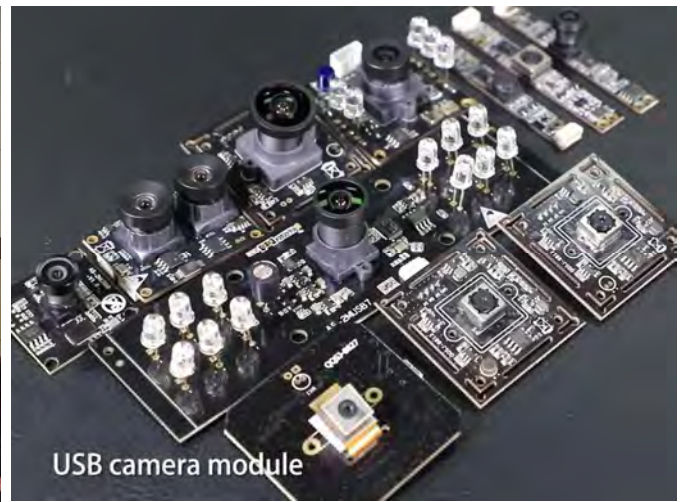
Limited Warranty

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 subsequential events.

YDS Strength

Powerful Factory

Professional Service

Promised Delivery