

YDS-OV8865-E602B V3.0

8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module



Front View



Back View

Specifications

Camera Module No.	YDS-OV8865-E602B V3.0	
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 5.60 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	

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YDS-OV8865-E602B V3.0

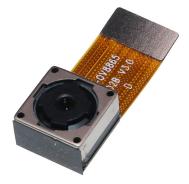
8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module

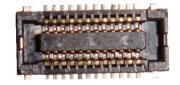




Top View

Side View



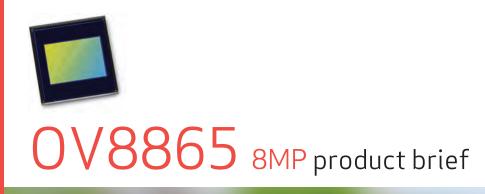


Bottom View

Mating Connector

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[Version: 1/0	1:1 1 of 1	rd Angle				650nm±10nm@50%	IR Cut Coating: 650	IF	oply);	external power supply);	(externi
	Vanio	Э		Aouly Yan		Checked Bv	FILTER	Composition: 5P+IR FILTER		Important Voltage Description: DVDD1.2V	nt Voltage [Importa
		Material:	Projection Type: Unit:	Pro				Focal length: 3.85mm			Lens Type: 1/3.2	Lens Ty
	0V8865-E602B V3.0	0V8865-E	Model Name:	Kevin Mot		Designed By	~	TV distortion: <1.5%			1.4um×1.4um	
(J								F/NO.: 2.2		865	Sensor: OV8865	ح Image S
)							H);47.9°(V);	FOV: 72.9°(D);61.1°(H);47.9°(V);		specification.	Sensor spec	
							pecification.	• Lens s	2		eter•	Parameter.
										dress: If SID=1	1.5ensor 12L slave address: 0x6C If SID=0;or 0x20 If SID=1	0x6C lf
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		W	ROTTOM VIEW	BOT		VTEW	V HULS	TOD VIEW	Г			
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					1) <u>+ ()</u> _		1.2V	20 GND 21 DVDD 1.2V
N			12	_ 					10			
				-, ED	ss FCCL	FPC Adhesiveless FCCL,				22		1/ SDA 18 SCL
						0.12±0.03	, 			<u>2.52</u>		
					-	Steel Grouding				<u>2 ± 0</u>	D 1.8V	
					- <u></u>	0.20 ± 0.05				.20		13 MCLK
									8.5			12 GND
							2;9°	72	0 <u>+</u>		2.8V	
									<u>)</u> ()			
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					< - -		-∞6.00		+			7 GND
,			I	Heinht)	/rm f	5 10+0 20(V/M Height)		8 5N+N 1N				6 MCP
•				5.40±0.20(Normal Height)	Norm	5.40 ± 0.20						5 MCN
				Height)	MICLO	5.60±0.20(Micro Height	▲ ▼ ↓	2448 I				
1	5-6-2021	pin SID	Add p	V3.0	-		1	3264				
	2-22-2021	Version	First V	V2.0) MDN1
	Date	nation	Information	Version								NO. SIGNAL
		ריז					\cap		В		A	







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

PC Multimedia

Tablets

Product Features

static defective pixel canceling

supports output formats:

supports horizontal and vertical subsampling

10-bit RAW RGB (MIPI)

- automatic black level calibration (ABLC) supports 2x2 binning, re-sampling filter
- programmable controls for frame rate, standard serial SCCB interface mirror and flip, cropping, and windowing
 - 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
- supports images sizes: 3264x2448, 3264x1836, 2816x1584, built-in temperature sensor 1632x1224, 1408x792

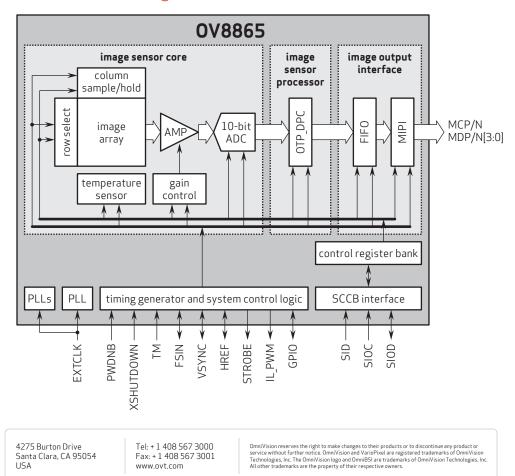
- OV08865-G04A-1D
 - (color, chip probing, 200 µm backgrinding, reconstructed wafer with good die)

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) sensitivity: 940 mV/lux-sec 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

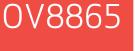
- input clock frequency: 6 27 MHz
- max S/N ratio: 36.7 dB
- dynamic range: 68.8 dB
- maximum image transfer rate: 30 fps
- scan mode: progressive
- **pixel size:** 1.4 μm x 1.4 μm
- dark current: 20 e⁻/sec @ 60°C junction temperature
- image area: 4614.4 μm x 3472 μm
- die dimensions: 5850 μm x 5700 μm

Functional Block Diagram





Version 1.3, October, 2014



DONGWOON ANATECH

DW9714P

Upgraded Conventional AF Driver IC

FEATURES

120mA output driver with 10-bit resolution DAC Smart Actuator Control (SACTM) 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 I²C 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^2C serial interface that operates at clock rate up to 1MHz. The I^2C 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

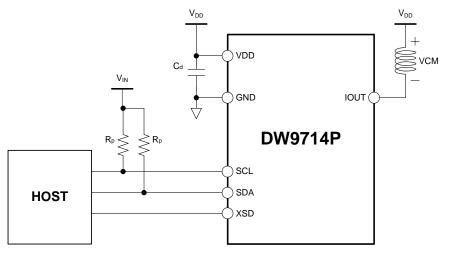


Figure 1. Typical application circuit

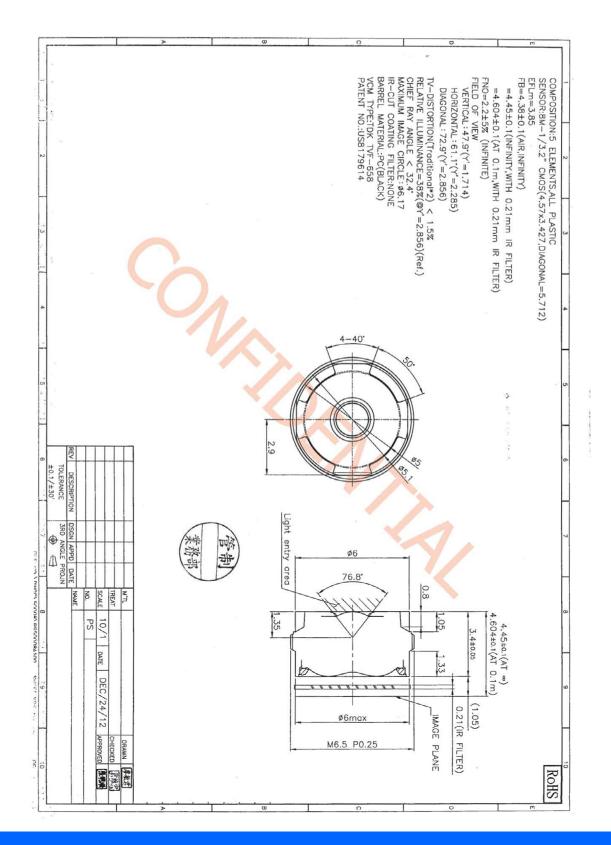
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YDS-LENS-50008A1

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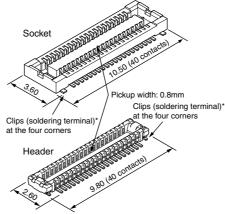




NARROW-PITCH, THIN AND SLIM CONNECTOR FOR BOARD-TO-FPC CONNECTION

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

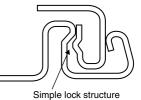
2. Highly reliable **TDLIGH CONTRET** has strong resistance to adverse environments.

(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.

NARROW PITCH (0.4 mm) CONNECTORS F4S 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"

Example	of Board-to-FPC connections
Before mating	Reinforcing plate Narrow-pitch f (with FPC) connectors F4S
After mating	+ 1.0mm
CO	e simple lock mechanism ensures that the nnector clicks into position when it is inserted reliable single-action insertion on the PCB.

ORDERING INFORMATION

5: Narrow Pitch Connector F4S (0.4 mm pitch) Socket 6: Narrow Pitch Connector F4S (0.4 mm pitch) Header	AXT 4
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</header></socket>	
Functions <socket, header=""> 2: Without positioning bosses</socket,>	
Surface treatment (Contact portion / Terminal portion) <socket> 4: Base: Ni plating Surface: Au plating (for Ni barrier av <header> 4: Base: Ni plating Surface: Au plating</header></socket>	ailable)

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 CONTRET

Matad baight	Number of contacts	Part r	number	Pac	king
Mated height	Number of contacts	Socket	Header	Inner carton	Outer carton
	10	AXT510124	AXT610124		
	12	AXT512124	AXT612124		
	14	AXT514124	AXT614124		
	16	AXT516124	AXT616124		
	18	AXT518124	AXT618124		
	20	AXT520124	AXT620124		
1.0mm	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	3,000 pieces	6,000 pieces
	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		
	10	AXT510224	AXT610224		
	30	AXT530224	AXT630224		
1.2mm	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.

The above part numbers are for connectors without positioning bosses, which are standard. When ordering connectors with positioning bosses, please contact our sales office.
 Please contact us for connectors having a number of contacts other than those listed above.

SPECIFICATIONS

1. Characteristics

	Item	Specifications	Conditions
	Rated current	0.3A/contact (Max. 5 A at total contacts)	
	Rated voltage	60V AC/DC	
Electrical characteristics	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.
characteristics	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.
	Composite insertion force	Max. 0.981N/contacts × contacts (initial)	
Vechanical	Composite removal force	Min. 0.165N/contacts × contacts	
characteristics	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. 100M Ω , contact resistance max. 90m Ω	Sequence 155. ⁹ / ₂ °C, 30 minutes 2. ~, Max. 5 minutes 3. 85* ³ / ₂ °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±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 ₂ S resistance (header and socket mated)	48 hours, contact resistance max. $90m\Omega$	Bath temperature $40\pm2^{\circ}C$, 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) table (mm)

1.2mm

1.17

0.83

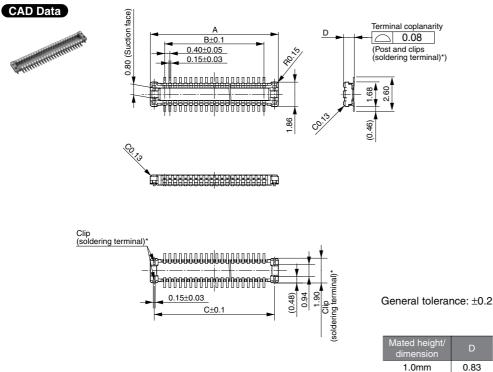
1.01

1.2mm

······	Dimension table (m
CAD Data	8 Number of contacts/ dimension
	28
	30
	32
L 	34
	36
	38
Y note	40
	42
	44
	46
	e: ±0.2 48
	50
	54
A CTU. I Mated height/	D 60
dimension	64
1.0mm 0	0.97 70

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

Header (Mated height: 1.0 mm and 1.2 mm)



Dimension table (mm)

80

Number of contacts/ dimension	А	В	С
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

4.5

4.9

5.3

5.7

6.1

6.5

6.9

7.3

77

8.1

8.5

8.9

9.3

9.7

10.1

10.5

10.9

11.3

11.7

12.1

12.5

13.3

14.5

15.3

16.5

18.5

1.6

2.0

2.4

2.8

3.2

3.6

4.0

4.4

4.8

5.2

5.6

6.0

6.4

6.8

7.2

7.6

8.0

8.4

8.8

9.2

9.6

10.4

11.6

12.4

13.6

15.6

3.4

3.8

4.2

4.6

5.0

5.4

5.8

6.2

6.6

7.0

7.4

7.8

8.2

8.6

9.0

9.4

9.8

10.2

10.6

11.0

11.4

12.2

13.4

14.2

15.4

17.4

· Socket and Header are mated





Mated height: 1.0 mm

Mated height: 1.2 mm



Camera Module Pinout Definition Reference Chart

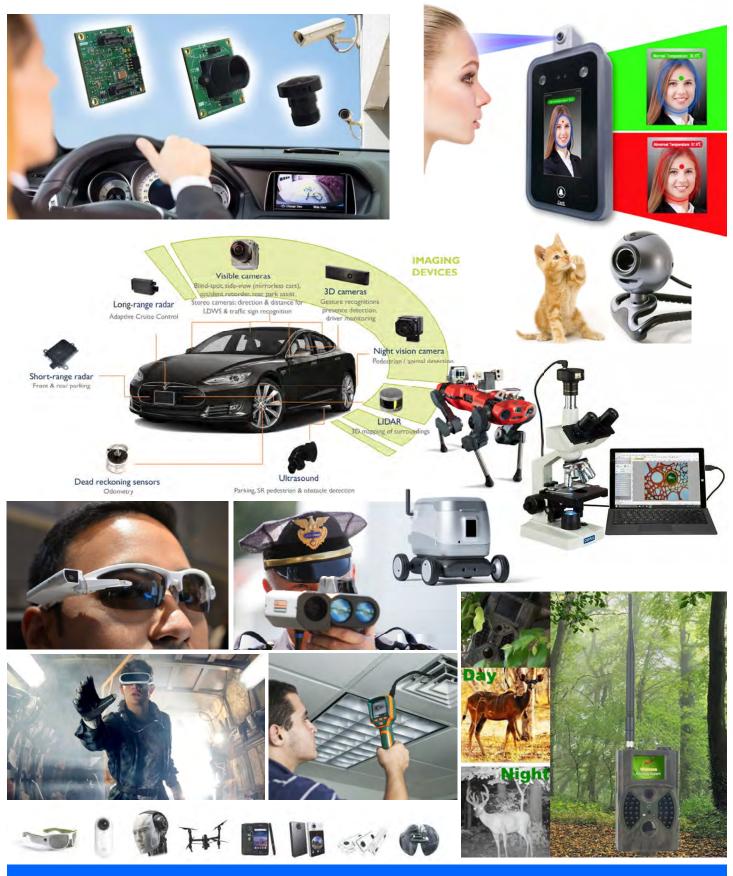
OmniVision Sony Samsung On-Semi Ap	tina Himax GalaxyCore PixArt SmartSens Sensors
Pin Signal	Description
DGND GND	ground for digital circuit
AGND	ground for analog circuit
PCLK DCK	DVP PCLK output
XCLR PWDN XSHUTDOWN STANDBY	power down active high with internal pull-down resistor
MCLK XVCLK XCLK INCK	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 D00 Y0	DVP data output port 0
D1 D01 Y1	DVP data output port 1
D2 D02 Y2	DVP data output port 2
D3 D03 Y3	DVP data output port 2
D4 D04 Y4	DVP data output port 3
D5 D05 Y5	DVP data output port 5
D6 D06 Y6	DVP data output port 6
D7 D07 Y7	DVP data output port 7
D8 D08 Y8	DVP data output port 7
D9 D09 Y9	DVP data output port 9
D10 D010 Y10	DVP data output port 9 DVP data output port 10
D11 D011 Y11	DVP data output port 10 DVP data output port 11
	עשר שמומ שעוףטו דיו

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Cameras Applications

8

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Camera Reliability Test

Reliability Inspection Item			Testing Mathed	Acceptance Criteria	
Cat	egory	Item	Testing Method	Acceptance Criteria	
	Storage	High 60°C 96 Hours	Temperature Chamber	No Abnormal Situation	
	Temperature	Low -20°C 96 Hours	Temperature Chamber	No Abnormal Situation	
Environmental	Operation	High 60°C 24 Hours	Temperature Chamber	No Abnormal Situation	
	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	
	Drop Test	Without Package 60cm	10 Times on Wood Floor	Electrically Functional	
	(Free Falling)	With Package 60cm	10 Times on Wood Floor	Electrically Functional	
		50Hz X-Axis 2mm 30min	Vibration Table	Electrically Functional	
Physical	Vibration Test	50Hz Y-Axis 2mm 30min	Vibration Table	Electrically Functional	
		50Hz Z-Axis 2mm 30min	Vibration Table	Electrically Functional	
	Cable Tensile Strength Test Cable Tensile Cycling in 24 Hours		Tensile Testing Machine	Electrically Functional	
Electrical		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	



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Camera Inspection Standard

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Inspection		ı Item	Increation Mathed	Standard of Inspection
Categ	gory	Item	Inspection Method	Standard of Inspection
		Color	The Naked Eye	Major Difference is Not Allowed.
	FPC/ PCB	Be Torn/Chopped	The Naked Eye	Copper Crack Exposure is Not Allowed.
		Marking	The Naked Eye	Clear, Recognizable (Within 30cm Distance)
		Scratches	The Naked Eye	The Inside Crack Exposure is Not Allowed
	Holder	Gap	The Naked Eye	Meet the Height Standard
Appearance	Holdel	Screw	The Naked Eye	Make Sure Screws Are Presented (If Any)
		Damage	The Naked Eye	The Inside Crack Exposure is Not Allowed
		Scratch	The Naked Eye	No Effect On Resolution Standard
	Lens	Contamination	The Naked Eye	No Effect On Resolution Standard
	Lens	Oil Film	The Naked Eye	No Effect On Resolution Standard
		Cover Tape	The Naked Eye	No Issue On Appearance.
		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
Function	Image	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
		Height	The Naked Eye	Follows Approval Data Sheet
Dimen	sion	Width	The Naked Eye	Follows Approval Data Sheet
Dimen	1910[1	Length	The Naked Eye	Follows Approval Data Sheet
		Overall	The Naked Eye	Follows Approval Data Sheet

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YDS Camera Module



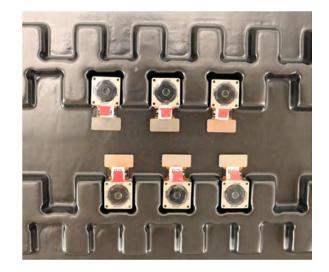
Tray with Grid and Space

Complete with Lens Protection Film



Place Cameras on the Tray





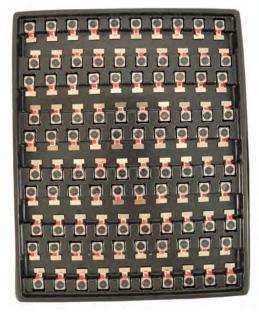
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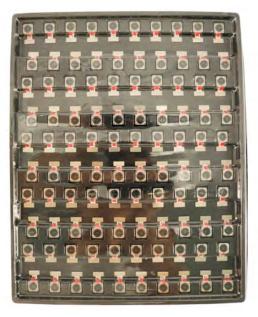
Full Tray of Cameras

DS



Place Tray into Anti-Static Bag

Cover Tray with Lid



Vacuum the Anti-Static Bag



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Sealed Vacuum Anti-Static Bag with Labels

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



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YDSCAM Package Solutions

Place Foam Sheets Between Tray Bags



Place Foam Sheets and Trays into Box



Seal the Carbon Box



Foam Sheets are Larger Than Trays



Foam Sheets are Tightly Fitting in Box



Label the Carbon Shipping Box



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USB Camera Module







Place Camera Sample into Anti-Static Bag

Place USB Cameras into Tray







Seal the Tray with Anti-Static Bag



Label the Carbon Shipping Box



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Complete with Lens Protection Film



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Place Camera Sample into Anti-Static Bag





Label the Sample Bags

Place Connectors into Anti-Static Bag



Place Connectors into Reel



Place Samples into the Carbon Box





Place Connectors into the Carbon Box



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YDS

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 <u>www.YDSCAM.com</u>. 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.



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YDS Strength

Y

Powerful Factory



Professional Service



Promised Delivery



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