

JAL-OV8865-A898B V2.5

8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module



Front View



Back View

Specifications

| | |
|---------------------------------|-------------------------------------|
| Camera Module No. | JAL-OV8865-A898B V5.2 |
| 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 | 100.90 x 9.00 mm |
| Module Type | Auto Focus |
| Interface | MIPI |
| Auto Focus VCM Driver IC | DW9714P |
| Lens Type | 650nm IR Cut |
| Operating Temperature | -30°C to +85°C |
| Mating Connector | 24-5804-030-000-829 |

JAL-OV8865-A898B V2.5

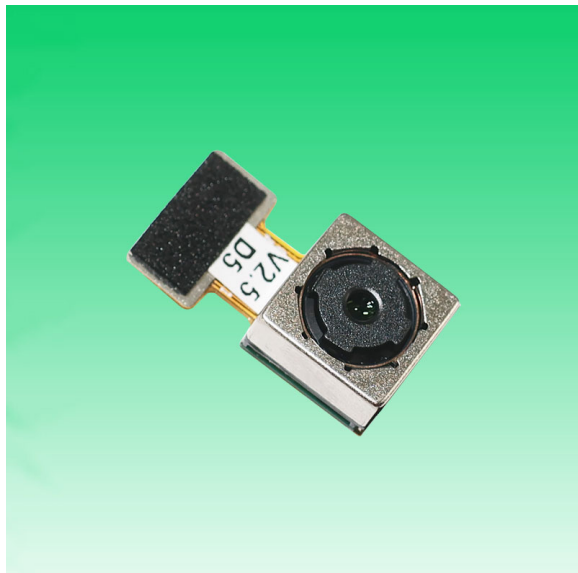
8MP OmniVision OV8865 MIPI Interface Auto Focus Camera Module



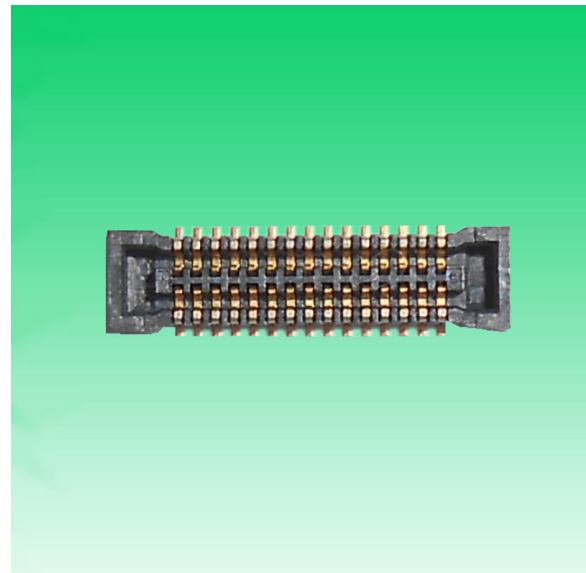
Top View



Side View



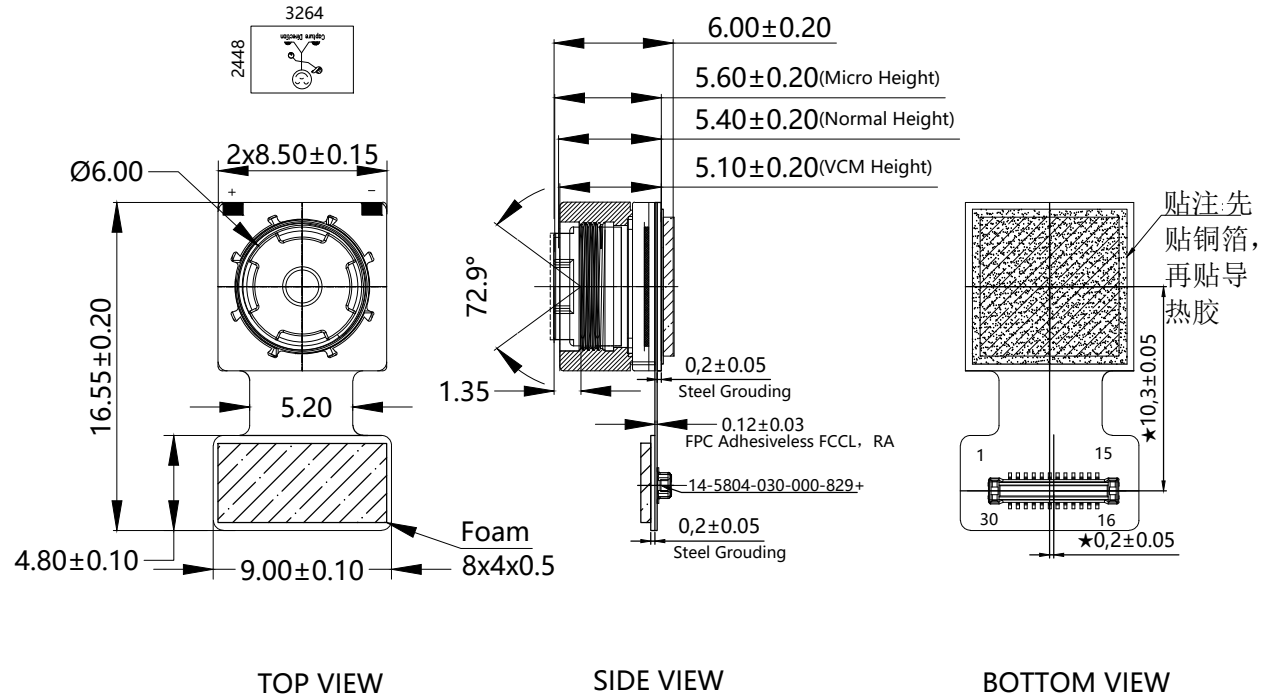
Bottom View



Mating Connector

| | |
|----|-----------|
| NO | SIGNAL |
| 1 | DGND |
| 2 | AFVDD2.8V |
| 3 | DVDD1.2V |
| 4 | DOVDD1.8V |
| 5 | NC |
| 6 | AGND |
| 7 | AVDD2.8V |
| 8 | DGND |
| 9 | I2C-SDA |
| 10 | I2C-SCL |
| 11 | RST |
| 12 | PWDN |
| 13 | DGND |
| 14 | MCLK |
| 15 | DGND |
| 16 | DP3 |
| 17 | DN3 |
| 18 | DGND |
| 19 | DP2 |
| 20 | DN2 |
| 21 | DGND |
| 22 | DP1 |
| 23 | DN1 |
| 24 | DGND |
| 25 | CLKP |
| 26 | CLKN |
| 27 | DGND |
| 28 | DPO |
| 29 | DNO |
| 30 | DGND |

| Version | Information | Date |
|---------|--------------------------|----------|
| V2.1 | Update capture direction | 5-8-2021 |
| V2.3 | Change VCM | 6-8-2021 |
| V2.5 | Change VCM | 5-8-2023 |



Parameter:
1、Sensor specification:
 Image Sensor: OV8865
 Pixel: 1.4um*1.4um
 Lens Type: 1/3.2
 Important Voltage Description:
 DVDD1.2V (external power supply);

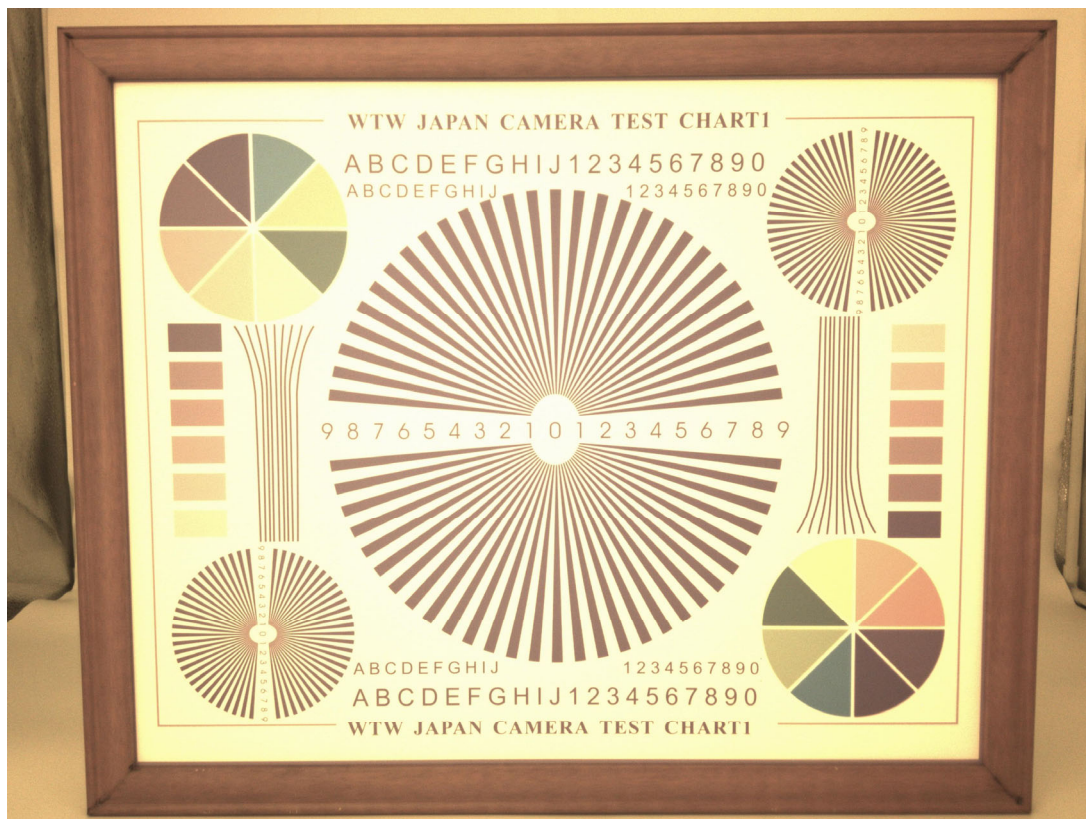
2、Lens specification:
 FOV: 72.9°(D);61.1°(H);47.9°(V);
 F/NO.: 2.2
 TV distortion: <1.5%
 Focal length: 3.85mm
 Composition: 5P+IR FILTER
 IR Cut Coating: 650nm±10nm@50%

Kai Lap Technologies Group Ltd

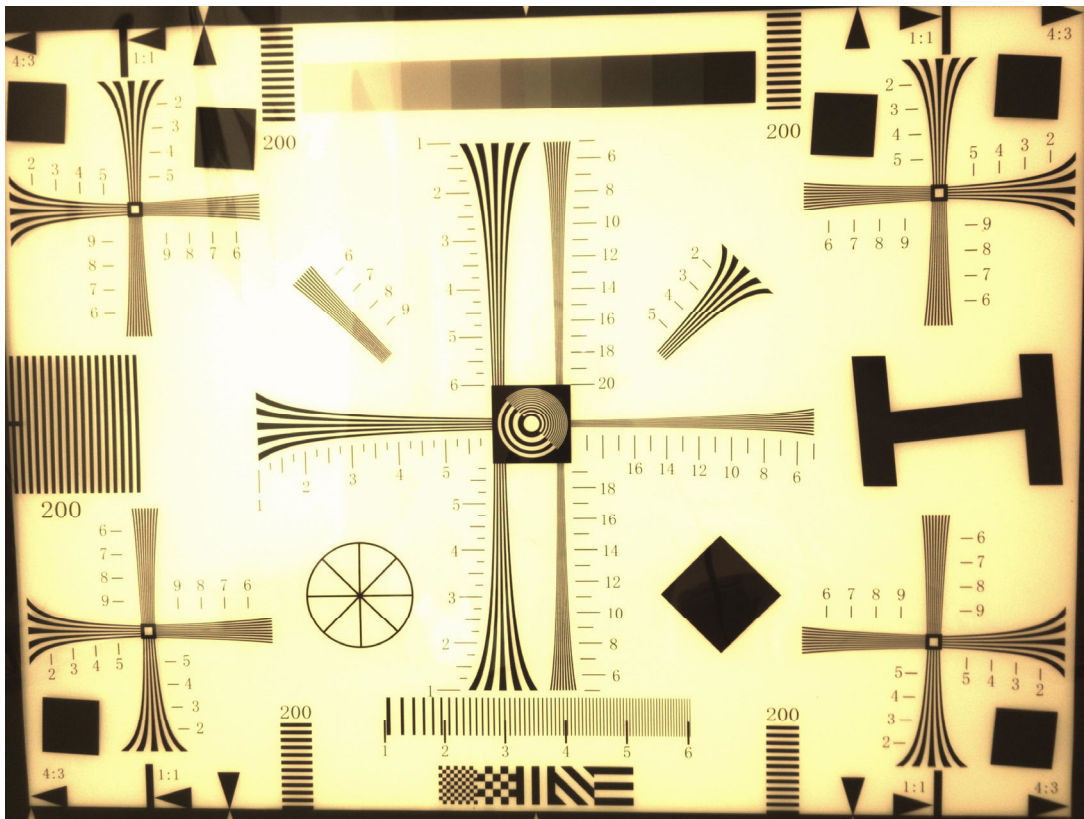
| | | | | | |
|-------------|-----------|------------------|-----------------------|-----------------|--------------|
| Designed By | Kevin | Model Name: | JAL-OV8865-A898B V2.5 | | |
| Checked By | Aouly_Yan | Projection Type: | Unit: mm | Material: ----- | |
| | | | Scale: 1:1 | Sheet: 1 of 1 | Version: 1/0 |

Real Test Images

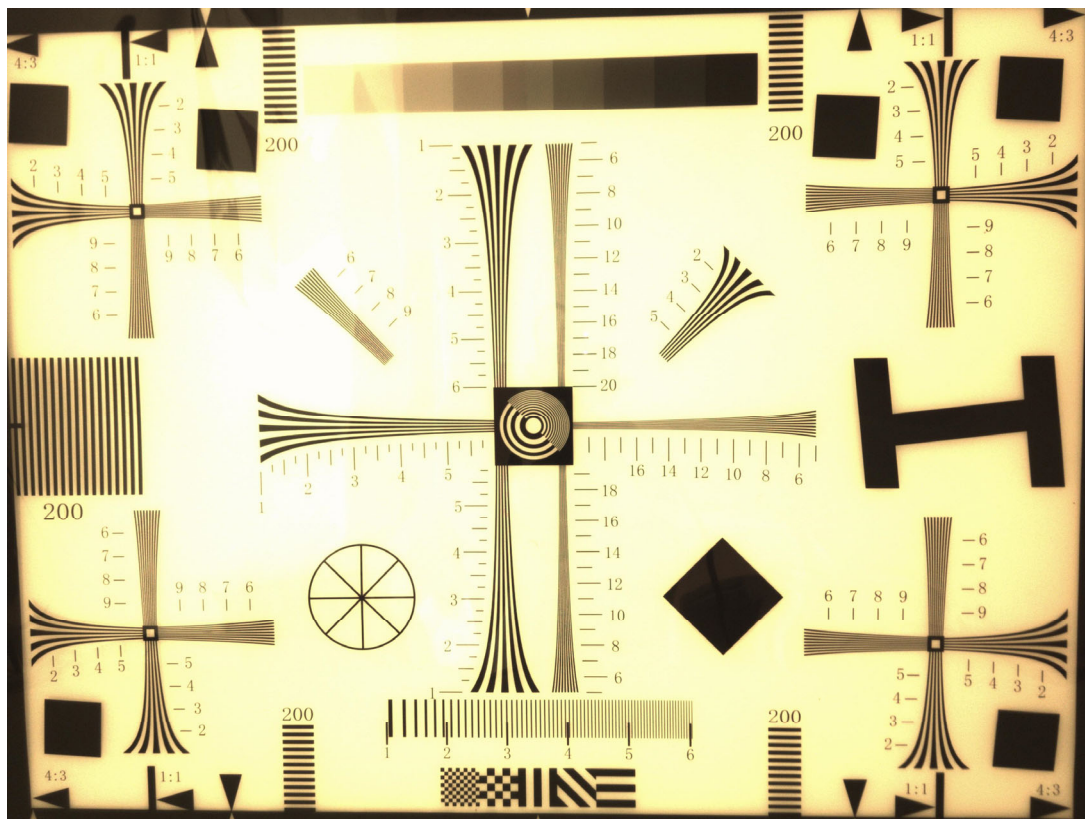
OV8865-A898B V2.5

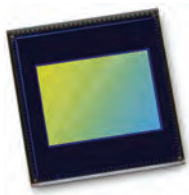


Real Test Images OV8865-A898B V2.5



Real Test Images OV8865-A898B V2.5





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.



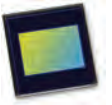
Applications

- Cellular Phones
- Tablets
- PC Multimedia

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

OV8865



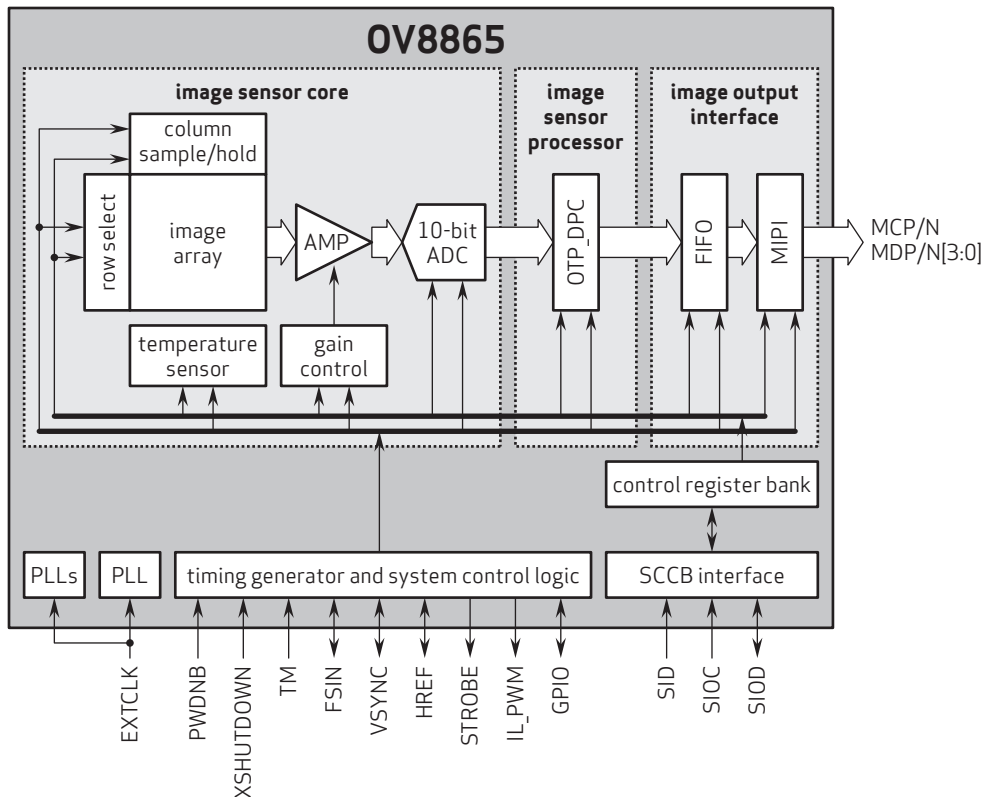
Ordering Information

- OV8865-G04A-1D**
(color, chip probing, 200 μm backgrinding, reconstructed wafer with good die)

Product Specifications

- active array size:** 3264 x 2448
- input clock frequency:** 6 - 27 MHz
- power supply:**
 - core: 1.2V
 - analog: 2.8V
 - I/O: 1.8V, 2.8V
- max S/N ratio:** 36.7 dB
- dynamic range:** 68.8 dB
- maximum image transfer rate:** 30 fps
- 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
- 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
- output formats:** 10-bit RAW RGB data
- image area:** 4614.4 μm x 3472 μm
- die dimensions:** 5850 μm x 5700 μm
- lens size:** 1/3.2"
- lens chief ray angle:** 32.2° non-linear

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

Tel: +1 408 567 3000
Fax: +1 408 567 3001
www.ovt.com

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OmniVision

FEATURES

- 120mA output driver with 10-bit resolution DAC
- Smart Actuator Control (SAC™) 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™ mode which can minimize the mechanical vibration and achieve very fast mechanical settling time. The SAC™ 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 I²C serial interface that operates at clock rate up to 1MHz. The I²C 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

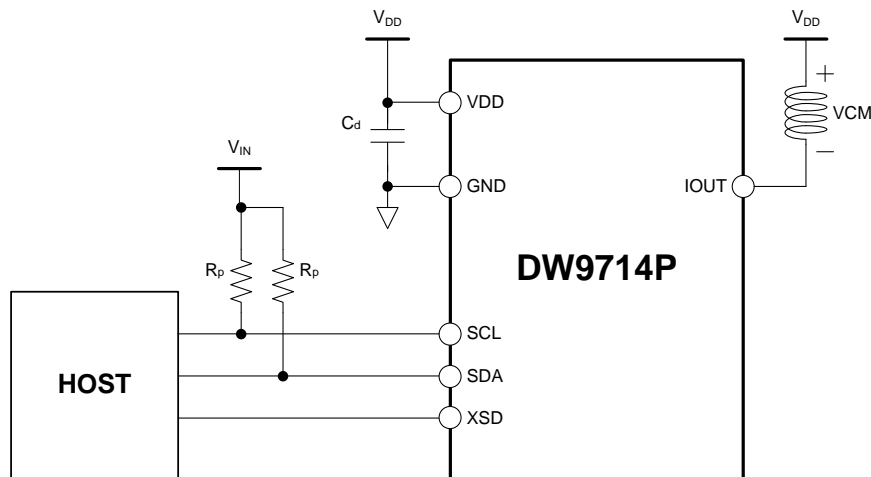
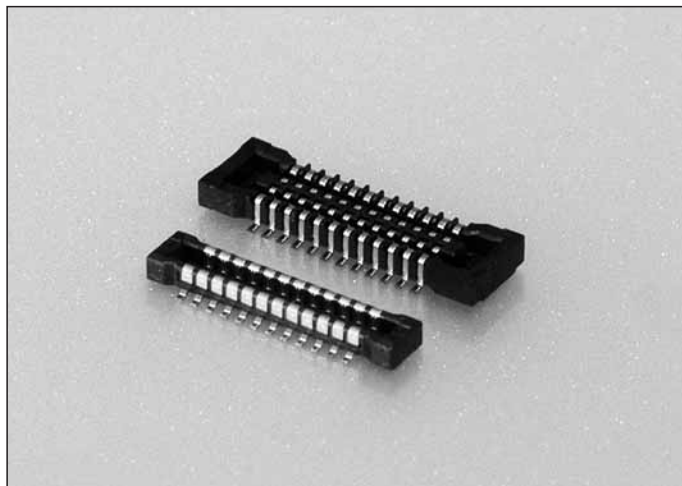


Figure 1. Typical application circuit

0.4mm Pitch

Series 5804



| | |
|-----------------------------------|------------------------------|
| シリーズ (Series) | 5804 |
| 基板間高さ (Stacking Height) | 0.9mm |
| 極間隔 (Pitch) | 0.4mm |
| 極数 (No. of Positions) | 10~80 |
| 定格電流 (Rated Current) | DC 0.3A |
| 定格電圧 (Rated Voltage) | DC 50V |
| 耐電圧 (D.W.Voltage) | AC 250Vrms/min. |
| コンタクト材質 (Contact Material) | 銅合金 Copper alloy |
| インシュレータ材質 (Insulator Material) | 耐熱樹脂 Heat resistance plastic |
| 使用温度範囲 (Operating Temperature) | -40~85°C |

SERIES 5804

◇概要

5804シリーズは、市場における携帯電話やデジタルAV機器等の小型化、薄型化の要求に基づき開発された0.4mmピッチ、嵌合高さ0.9mmの超低背基板対基板コネクタです。幅寸法は2.4mmと、より一層の省面積化を実現しています。

◇Outline

Series 5804 is a 0.4mm pitch and ultra low profile Board to Board connector with 0.9mm in mating height is developed to meet marketing needs for minimum size of cell phones, digital AV equipment, etc. A great deal of space saving is achieved with 2.4mm in width.

◇特長

- (1) スリム・低背でありながらコネクタ裏面に下壁を設け金属の露出がなく、製品の端子ランド対向間にパターン配線が可能であり、高密度実装に最適な構造です。
- (2) 高い接触信頼性を実現するために、接触構造は振動や落下衝撃に強い挟み込み構造を採用するとともに、接触部は飛散したフラックスや付着した異物を排除する独自の構造を採用しました。
- (3) 嵌合時のロック構造は、独自のロック構造を採用。低背でありながらも優れたクリック感と、抜去時の保持力を強化しています。

◇Features

- (1) Pattern can be laid out between connector leads, which is suitable for high density package, because no metal is exposed on the bottom of the connector besides its slim and low profile.
- (2) The pinching structure, highly resistant to vibration and drop shock, is adopted in contacts and the original structure excluding splashed flux or foreign matters attached is adopted on contacting points in order to obtain high contacting reliability.
- (3) Original locking structure is adopted for mating lock mechanism that realizes the firm clicking response and enhances the retention force when connectors unmated even with their low profile.

本カタログには推奨めっきを掲載しております。めっき種類・仕様、ならびに生産対応可能極数については営業部に御確認願います。
Recommended plating types are mentioned in this catalogue.
For other plating types and their specifications, and available numbers of positions, please feel free to contact our sales department.

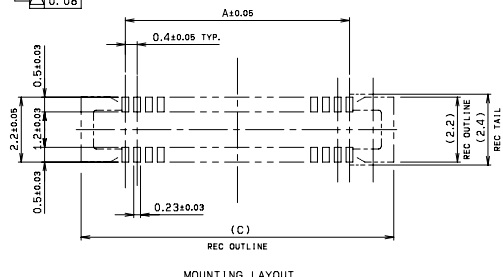
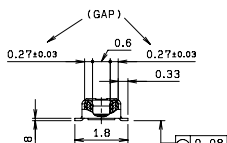
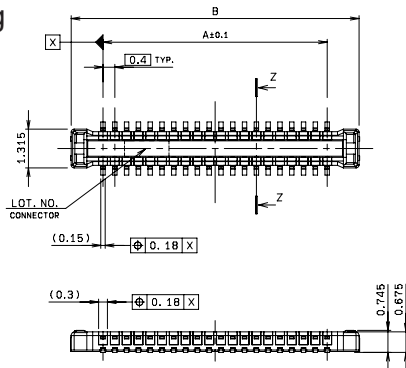
0.4mm Pitch

SERIES

5804 プラグ/リセ ST SMT

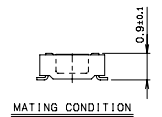
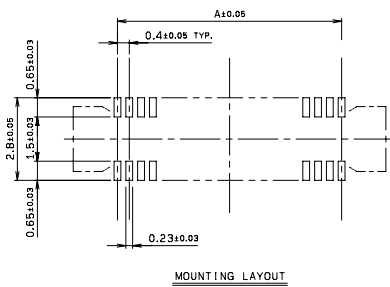
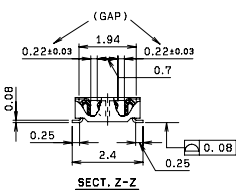
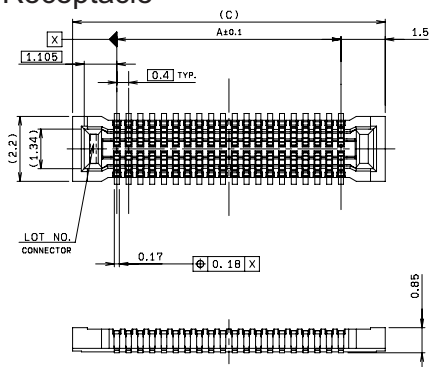
Plug/Receptacle Vertical SMT

● Plug



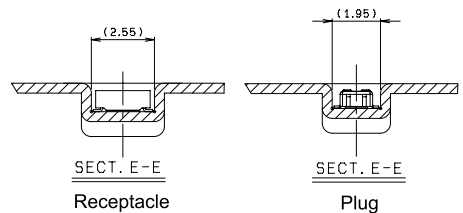
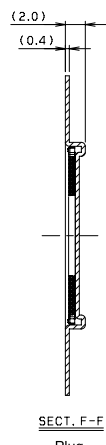
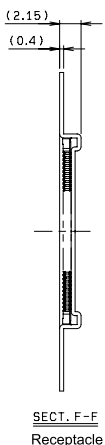
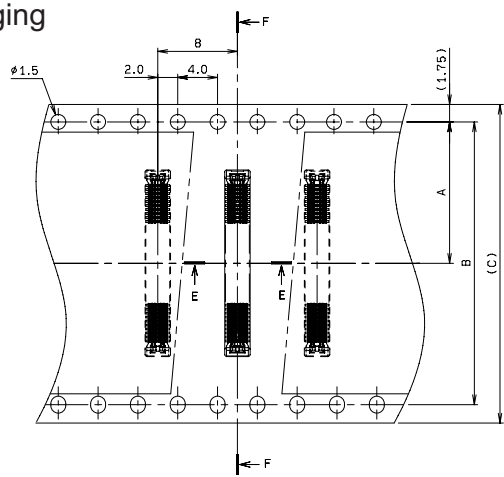
| 極数 NO. OF POS. | A | B | C |
|----------------------|------|-------|------|
| 10 | 1.6 | 3.76 | 4.6 |
| 12 | 2.0 | 4.16 | 5.0 |
| 14 | 2.4 | 4.56 | 5.4 |
| 16 | 2.8 | 4.96 | 5.8 |
| 18 | 3.2 | 5.36 | 6.2 |
| 20 | 3.6 | 5.76 | 6.6 |
| 22 | 4.0 | 6.16 | 7.0 |
| 24 | 4.4 | 6.56 | 7.4 |
| 26 | 4.8 | 6.96 | 7.8 |
| 30 | 5.6 | 7.76 | 8.6 |
| 32 | 6.0 | 8.16 | 9.0 |
| 34 | 6.4 | 8.56 | 9.4 |
| 40 | 7.6 | 9.76 | 10.6 |
| 44 | 8.4 | 10.56 | 11.4 |
| 50 | 9.6 | 11.76 | 12.6 |
| 54 | 10.4 | 12.56 | 13.4 |
| 60 | 11.6 | 13.76 | 14.6 |
| 70 | 13.6 | 15.76 | 16.6 |
| 80 | 15.6 | 17.76 | 18.6 |

● Receptacle



| 極数 NO. OF POS. | A | C |
|----------------------|------|------|
| 10 | 1.6 | 4.6 |
| 12 | 2.0 | 5.0 |
| 14 | 2.4 | 5.4 |
| 16 | 2.8 | 5.8 |
| 18 | 3.2 | 6.2 |
| 20 | 3.6 | 6.6 |
| 22 | 4.0 | 7.0 |
| 24 | 4.4 | 7.4 |
| 26 | 4.8 | 7.8 |
| 30 | 5.6 | 8.6 |
| 32 | 6.0 | 9.0 |
| 34 | 6.4 | 9.4 |
| 40 | 7.6 | 10.6 |
| 44 | 8.4 | 11.4 |
| 50 | 9.6 | 12.6 |
| 54 | 10.4 | 13.4 |
| 60 | 11.6 | 14.6 |
| 70 | 13.6 | 16.6 |
| 80 | 15.6 | 18.6 |

● Packaging



| 極数 NO. OF POS. | A | B | C |
|----------------------|------|------|------|
| 10 | 5.5 | - | 12.0 |
| 12 | 5.5 | - | 12.0 |
| 14 | 7.5 | - | 16.0 |
| 16 | 7.5 | - | 16.0 |
| 18 | 7.5 | - | 16.0 |
| 20 | 7.5 | - | 16.0 |
| 22 | 7.5 | - | 16.0 |
| 24 | 7.5 | - | 16.0 |
| 26 | 7.5 | - | 16.0 |
| 30 | 7.5 | - | 16.0 |
| 32 | 7.5 | - | 16.0 |
| 34 | 11.5 | - | 24.0 |
| 40 | 11.5 | - | 24.0 |
| 44 | 11.5 | - | 24.0 |
| 50 | 11.5 | - | 24.0 |
| 54 | 11.5 | - | 24.0 |
| 64 | 11.5 | - | 24.0 |
| 70 | 11.5 | - | 24.0 |
| 80 | 14.2 | 28.4 | 32.0 |

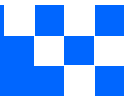
注文コード ORDERING CODE
X4 5804 0XX 000 829+

RoHS 対応品
RoHS Compliant Product

1 : Plug
2 : Receptacle
極数 Number of positions

注) 生産可能極数については営業部にご確認願います。
Note) Feel free to contact our sales department for available numbers of positions.

梱包数量 : 3000個/リール
PACKING QUANTITY : 3000/Reel



Cameras Applications



Automotive Driver Pilot



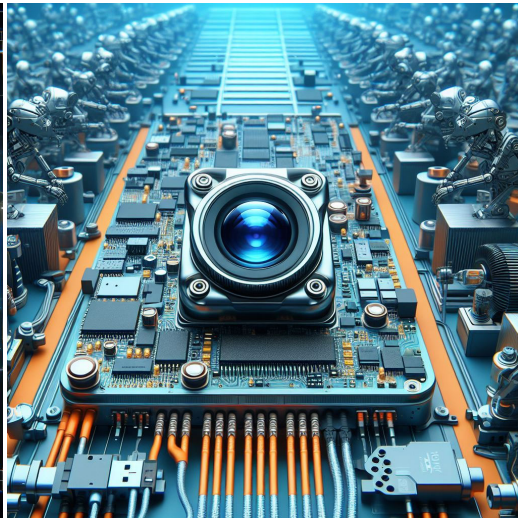
Live Streaming



Video Conference



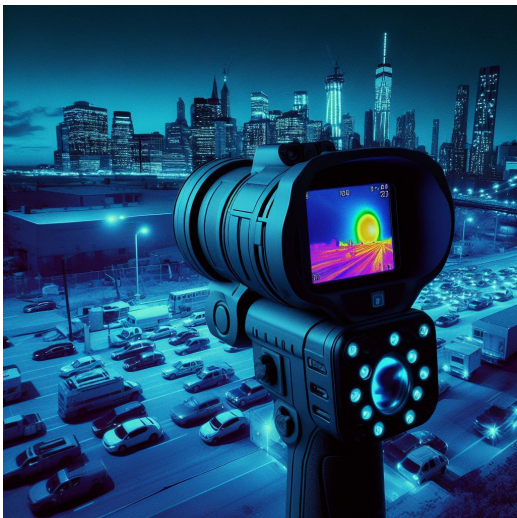
Eye Tracker Biometric Detection



Machine Vision



Agricultural Monitor



Night Vision Security



Drone and Sports Eagle Eyes

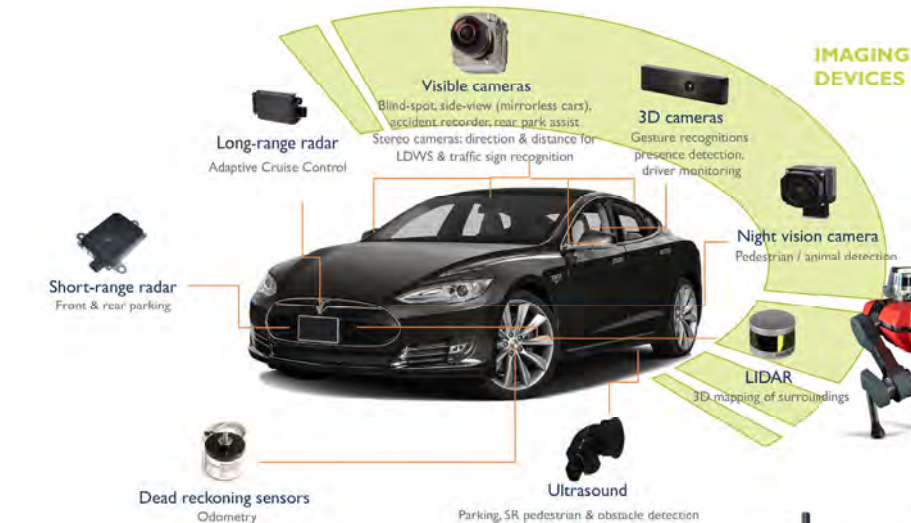


Interactive Pet Camera



your **BEST** camera module partner

Cameras Applications





Camera Module Pinout Definition Reference Chart

| OmniVision | Sony | Samsung | On-Semi | Aptina | Himax | GalaxyCore | PixArt | SmartSens | Sensors |
|-------------------------------|---------|-----------|---------|--------|-------|------------|--------|-----------|---------|
| Pin Signal | | | | | | | | | |
| Description | | | | | | | | | |
| DGND | GND | | | | | | | | |
| AGND | | | | | | | | | |
| PCLK | DCK | | | | | | | | |
| XCLR | PWDN | XSHUTDOWN | STANDBY | | | | | | |
| MCLK | XVCLK | XCLK | INCK | | | | | | |
| RESET | RST | | | | | | | | |
| NC | NULL | | | | | | | | |
| SDA | SIO_D | SIOD | | | | | | | |
| SCL | SIO_C | SIOC | | | | | | | |
| VSYNC | XVS | FSYNC | | | | | | | |
| HREF | XHS | | | | | | | | |
| DOVDD | | | | | | | | | |
| AFVDD | | | | | | | | | |
| AVDD | | | | | | | | | |
| DVDD | | | | | | | | | |
| STROBE | FSTROBE | | | | | | | | |
| FSIN | | | | | | | | | |
| SID | | | | | | | | | |
| ILPWM | | | | | | | | | |
| FREX | | | | | | | | | |
| GPIO | | | | | | | | | |
| SLASEL | | | | | | | | | |
| AFEN | | | | | | | | | |
| MIPI Interface | | | | | | | | | |
| MDN0 | DN0 | MD0N | DATA_N | DMO1N | | | | | |
| MDP0 | DP0 | MD0P | DATA_P | DMO1P | | | | | |
| MDN1 | DN1 | MD1N | DATA2_N | DMO2N | | | | | |
| MDP1 | DP1 | MD1P | DATA2_P | DMO2P | | | | | |
| MDN2 | DN2 | MD2N | DATA3_N | DMO3N | | | | | |
| MDP2 | DP2 | MD2P | DATA3_P | DMO3P | | | | | |
| MDN3 | DN3 | MD3N | DATA4_N | DMO4N | | | | | |
| MDP3 | DP3 | MD3P | DATA4_P | DMO4P | | | | | |
| MCN | CLKN | CLK_N | DCKN | | | | | | |
| MCP | CLKP | MCP | CLK_P | DCKN | | | | | |
| DVP Parallel Interface | | | | | | | | | |
| D0 | DO0 | Y0 | | | | | | | |
| D1 | DO1 | Y1 | | | | | | | |
| D2 | DO2 | Y2 | | | | | | | |
| D3 | DO3 | Y3 | | | | | | | |
| D4 | DO4 | Y4 | | | | | | | |
| D5 | DO5 | Y5 | | | | | | | |
| D6 | DO6 | Y6 | | | | | | | |
| D7 | DO7 | Y7 | | | | | | | |
| D8 | DO8 | Y8 | | | | | | | |
| D9 | DO9 | Y9 | | | | | | | |
| D10 | DO10 | Y10 | | | | | | | |
| D11 | DO11 | Y11 | | | | | | | |



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 |



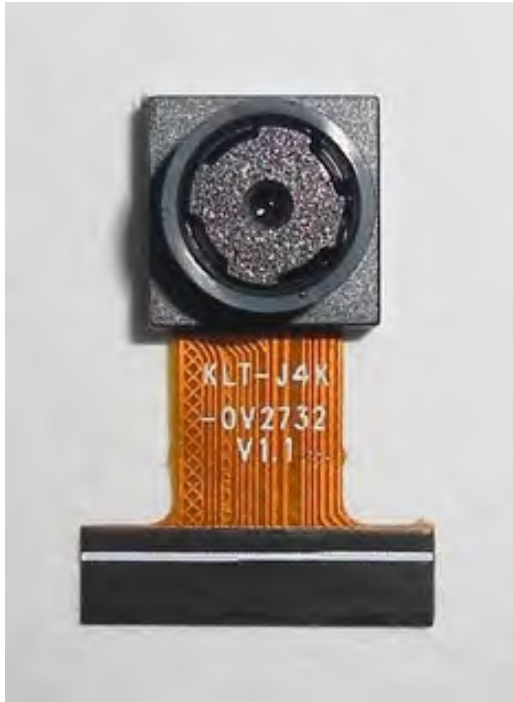


| Inspection Item | | Inspection Method | Standard of Inspection | | |
|------------------|----------|-------------------|-----------------------------|--|---------------------------------|
| Category | Item | | | | |
| Appearance | FPC/ PCB | Color | The Naked Eye | Major Difference is Not Allowed. | |
| | | 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 | | |



KLT Package Solutions

KLT Camera Module



Complete with Lens Protection Film



Tray with Grid and Space



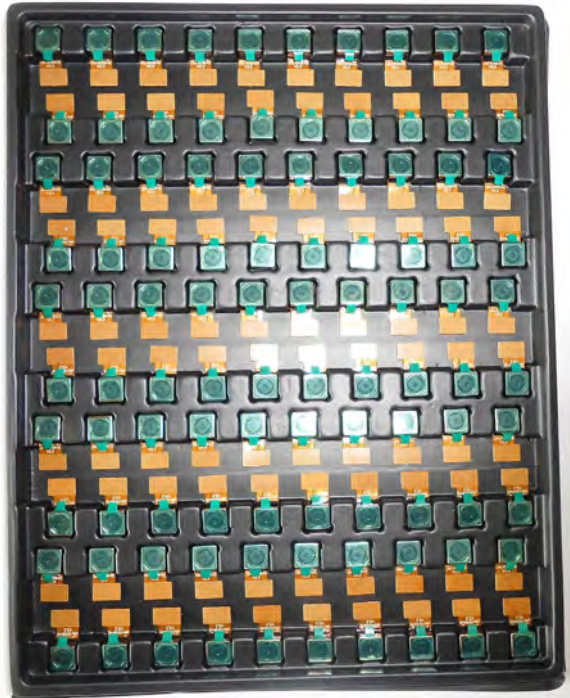
Place Cameras on the Tray





Camera Modules Package Solution

Full Tray of Cameras



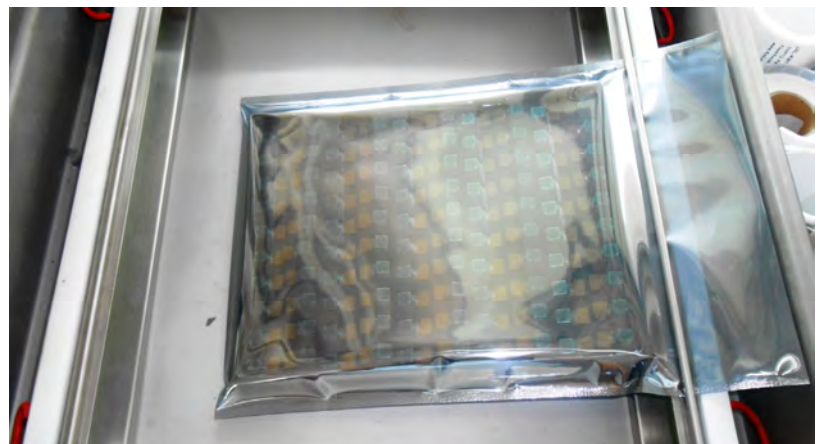
Cover Tray with Lid



Put Tray into Anti-Static Bag



Vacuum the Anti-Static Bag





Camera Modules Package Solution

Sealed Vacuum Bag with Labels

1. Model and Description 2. Quantity 3. Shipping Date 4. Caution





Large Order Package Solution

Place Foam Sheets Between Trays



Foam Sheets are Slightly Larger than Trays



Place Foam Sheets and Trays into Box



Foam Sheets are Tightly Fitting Box





Small Order Package Solution

Place Foam Sheets and Trays into Small Box



Foam Sheets are Nicely Fitting the Small Box



Package in Small Box for Shipment



Place Small Boxes into Larger Box





your BEST camera module partner

Carbon Box Package Solution

Seal the Carbon Box

Final Package Labelled Box



Carbon Box Ready for Shipment

1. Delivery Address and Phone No. 2. Box No. and Ship Date 3. Fragile Caution





Sample Order Package Solution

Place Sample into Small Anti-Static Bag



Place Connectors into Small Ant-Static Bag



Sample Labels on the Small Bag

1. Camera Module or Connector Model 2. Shipping Date and Quantity 3. Caution





Connectors Large Order Package Solution

Connectors in a Wheel



Label Connectors in the Wheel



The Wheel is Perfectly Fitting the Box



Connectors Box Ready for Shipment



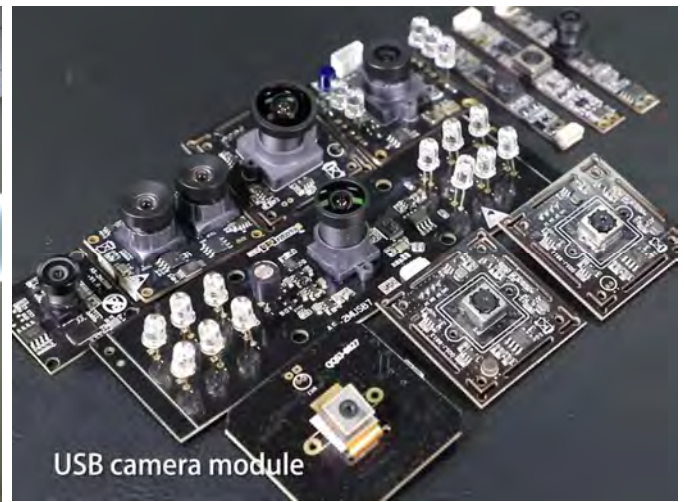


Company Kai Lap Technologies (KLT)

Kai Lap Technologies Group Limited. (KLT) was established in 2009, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. KLT is occupying 20,000 square feet automated plants with 100 employees of annual throughput 30,000,000 units cameras.

KLT 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. KLT 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

KLT provides the following limited warranty if you purchased the Product(s) directly from KLT company or from KLT's website, www.KaiLapTech.com. Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. KLT 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, KLT 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 KLT is solely limited to repair and/or replacement on the terms set forth above. KLT is not reliable or responsible for any subsequent events.





CMOS CAMERA MODULES



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KLT Strength

Powerful Factory



Professional Service



Promised Delivery



www.KaiLapTech.com sales@KaiLapTech.com Tel: (852) 6908 1256 Fax: (852) 3017 6778

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