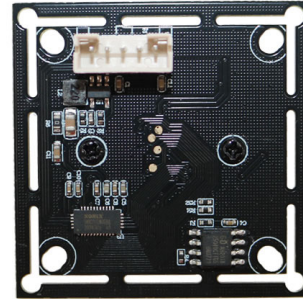## YDS-USB-1484 V1
2MP 1484 PrimeSensor PixArt PS5268 M12 Fixed Focus
USB 2.0 Camera Module

YDS-USB-1484 V1 is a 2MP Fixed Focus USB camera module based on 1/2.7" PS5268 image sensor. It delivers high-speed, 2K resolution ultra sharp image.

The S-mount (M12) lens holder enables customers to choose different lens as per varies applications. This camera module is ideal solution for mobile payment, home supplies, dog and cat monitor, visitor terminal equipment, medical imaging, gaming.

Key Features

- 2K resolution (1920 x 1080) PixArt (PrimeSensor) PS5268 sensor
- High speed USB 2.0 Plug and Play
- MJPG/YUV2 dual output format
- Low power consumption
- UVC compliant to Windows, Linux, OS with UVC driver
- USB OTG (On-The-Go) support

your best camera partner

YDS-USB-1484 V1

2MP 1484 PrimeSensor PixArt PS5268 M12 Fixed Focus USB 2.0 Camera Module

Camera Module No.	YDS-USB-1484 V1
Resolution	2MP
Image Sensor	PS5268
Sensor Type	1/2.7"
Pixel Size	3.0 um x 3.0 um
EFL	1.86 mm
F.NO	1.86
Pixel	1920 x 1080
View Angle	135.0°(DFOV) 124.6°(HFOV) 84.7°(VFOV)
Lens Dimensions	13.20 x 13.20 x 15.72 mm
Module Type	Fixed Focus
Lens Model	YDS-LENS-1484 V1
Interface	USB 2.0
Output Format	MJPG / YUV2
Auto Control	Saturation, Contrast, Acutance White Balance, Exposure
Audio	Digital Microphone, Single, Dual Channel
Input Voltage	DC 5V
Working Current	Max 500mA
PCB Size	32 x 32 mm
System Compatibility	Windows XP (SP2, SP3), Vista, 7, 8, 10, 11 Android, Mac OS, Linux or OS with UVC Driver Raspberry Pi by USB Port
Software for USB Camera	AMCAP, Webcam Viewer, V4L2 Controls Contacam, VLC Player, MotionEye OS iSpy, ZoneMider, Yawcam
Lens Type	650nm IR Cut
Operating Temperature	-20°C to +70°C
USB Cable	YDS-Cable-U023

Wide Compatibility with Windows, Android, Mac OS, Linux, or Raspberry Pi

YDS-USB-1484 V1
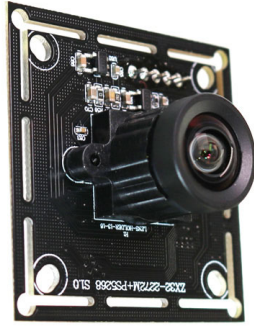## 2MP 1484 PrimeSensor PixArt PS5268 M12 Fixed Focus
USB 2.0 Camera Module

Top View
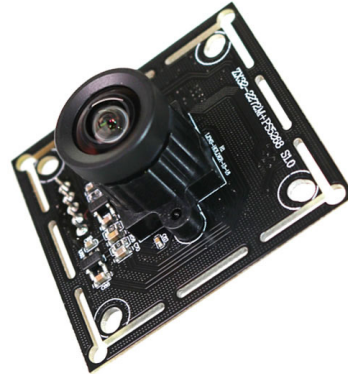
Side View
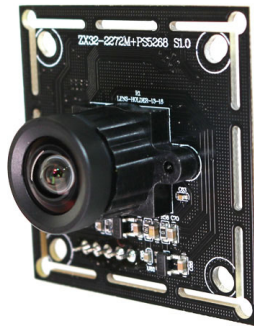
Bottom View

Mating Connector

YDS-USB-1484 V1
2MP 1484 PrimeSensor PixArt PS5268 M12 Fixed Focus
USB 2.0 Camera Module

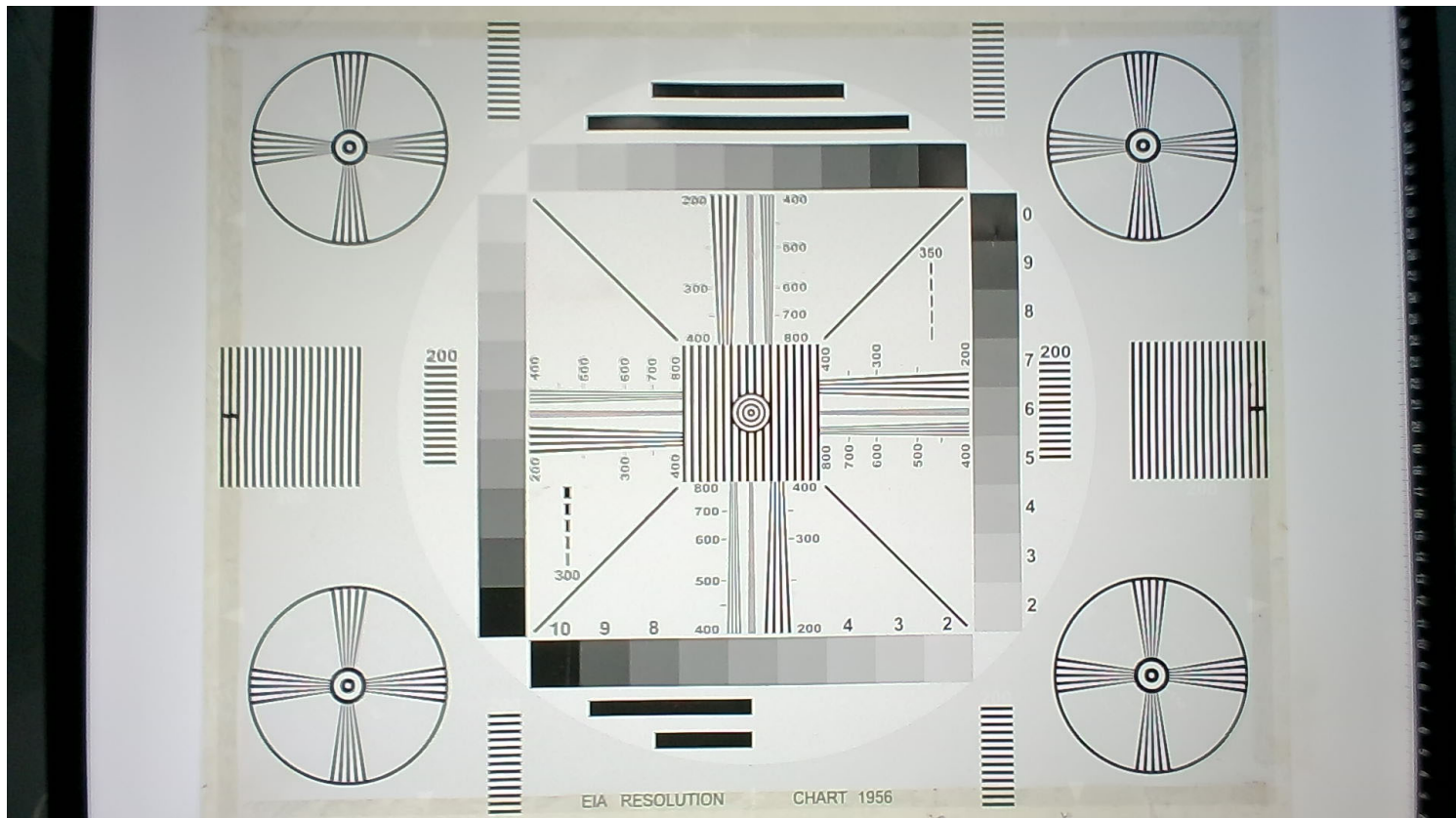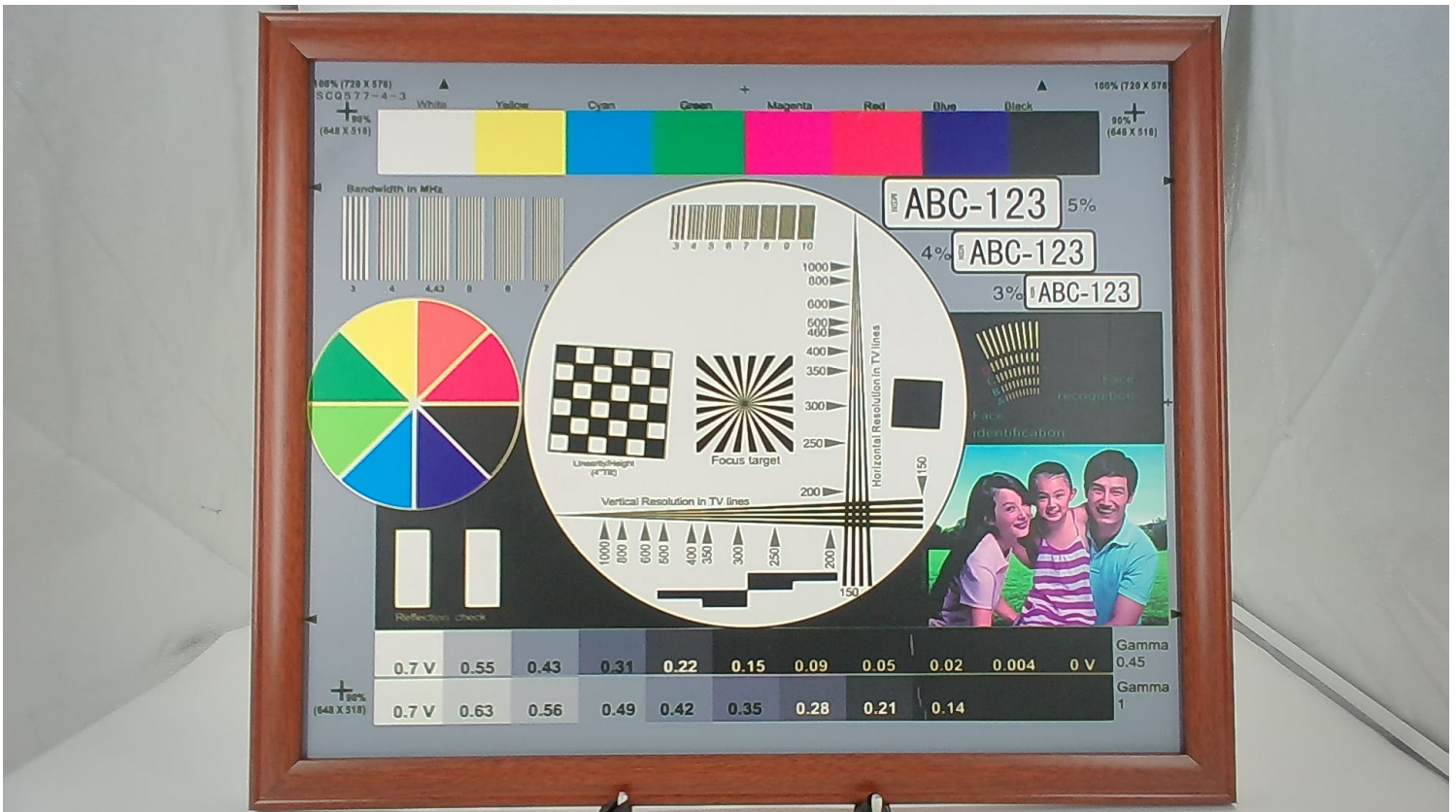| FORMAT	RESOLUTION	FRAME RATE
		USB 2.0
MJPG	640 x 480 (VGA)	30 FPS
	1280 x 720 (720P)	30 FPS
	1920 x 1080 (1080P)	30 FPS
YUY2	640 x 480 (VGA)	30 FPS
	1280 x 720 (720P)	10 FPS
	1920 x 1080 (1080P)	5 FPS

Parameters:

1、Sensor specification:

Image Sensor: PS5268

Pixel: 3.0um×3.0um

Lens Type: 1/2.7

Important Voltage Description: USB 5V (external power supply);

2、Lens specification:

FOV: 135°(D);124.6°(H);84.7°(V)

F/NO.: 1.86

TV distortion: <-15%

Focal length: 1.86mm

Composition: 4G2P+IR FILTER

IR Cut Coating: 650nm±10nm@50%

TOP VIEW

27.60
27.60
32.00
32.00

1920
1080

SIDE VIEW

135°
15.72
(3.20)
1.20
5.70
16.08±0.30

BOTTOM VIEW

PH1.25,Top entry type, 5PIN

USB5V	DM	DP	GND	GND
PIN1	PIN2	PIN3	PIN4	PIN5

5
1

4.00
2.00
14.00
All-R0.50
2-Φ1.80
4-3.20
4-2.40

Designed By	Model Name:		USB-1484 V1	
Kevin	Projection Type:	Unit: mm	Material: ---------	
Checked By	Third Angle	Scale: 1:1	Sheet: 1 of 1	Version: 1/0
Jacky				

Version	Information		Date
V1.0	First Version		8-16-2022

PS5268 Full-HD 1080p HDR CMOS IMAGE SENSOR

General Description

The **PS5268** is a low power, highly integrated CMOS image sensor that output of **1920x1080 (Full HD-1080p)** pixels with rolling shutter readout. It embedded the new FinePixel™ and HDR sensor technology to perform the excellent image quality and single-shot high dynamic range synthesized image output. **PS5268** outputs linear 14-bit or local tone mapped 12-bit raw data through MIPI CSI-2 interface with very low power consumption. It is available in **CSP** package.

The **PS5268** can be programmed to set the exposure time for different luminance condition via I2C™ serial control bus. Embedded HDR image synthesis with local tone mapping to deliver high performance, cost effective and time to market for high resolution HDR application. By programming the internal register set, it performs on-chip black level correction and high temperature image quality control.

Features

- **Image size : 1928 x 1088 pixels with Bayer-RGB color filter array and micro-lens**
- **Output format:**
  - **- 14bit Linear HDR-RAW RGB**
  - **- 12bit HDR + Local Tone Mapped RAW RGB**
  - **- 10bit Linear RAW RGB**
- **Output interface**
  - **- 12bit parallel DVP output**
  - **- 2-lane MIPI output (up to 800Mbps per lane)**
- **I2C™ Interface with two kinds of Slave_ID**
- **Low Power consumption**
- **High sensitivity**
- **Support on-chip HDR synthesis**
- **Image sensor processor functions :**
  - **Automatic black-level calibration**
  - **Embedded Local Tone Mapping**
  - **Black sun cancellation**
- **Support sensor frame synchronization**
- **On-chip PLL (input_clock / PLL_m >= 1MHz)**
- **On-chip column A/D converter**
- **On-chip manual analog gain control**
- **Continuous variable frame time & exposure time**
- **Support WOI and subsampling**
- **Support dummy line & pixel timing**
- **Support output Hsync at Vsync**
- **Support 1.7V~3.3V I/O**
- **Support Fast Auto Exposure (FAE) function**

Specifications

Parameter	Typical Value
Active array size	1928(H) x 1088(V)
Pixel size	3.0um (H) x 3.0um (V)
Shutter type	Electronic rolling shutter (ERS)
Optical format	1/2.7-inch
Lens chief ray angle	17 degree
ADC	10-bit
Sensitivity	5800 mV/Lux-sec
SNRmax	41 dB
Dynamic range	85 dB
Scan mode	Progressive scan
Input clock	Max 50MHz
Pixel clock	Max 148.5MHz
Max. frame rate	1080p: 1920x1080 Linear@ 60fps 1080p: 1920x1080 HDR+LTM @30fps
Supply voltage	Analog: 3.3 V Digital: 1.2 V I/O: 1.8V / 3.3V
Power consumption	75mW@1080p30 (MIPI) 54.5mW@1080p30 (DVP w/o I/O) 124mW@HDR-LTM1080p30 (MIPI) 107mW@HDR-LTM 1080p30 (DVP w/o I/O)
Operating temperature	-30°C ~ 85°C

Applications

- **Surveillance HD-CCTV Camera**
- **Surveillance IP Camera**
- **Car Video Recorder**
- **Video Door Phone**

Ordering Information

Part Number	Description
PS5268LT	47-ball CSP

PrimeSensor Technology Inc.

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

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

KLT Package Solutions

KLT Camera Module
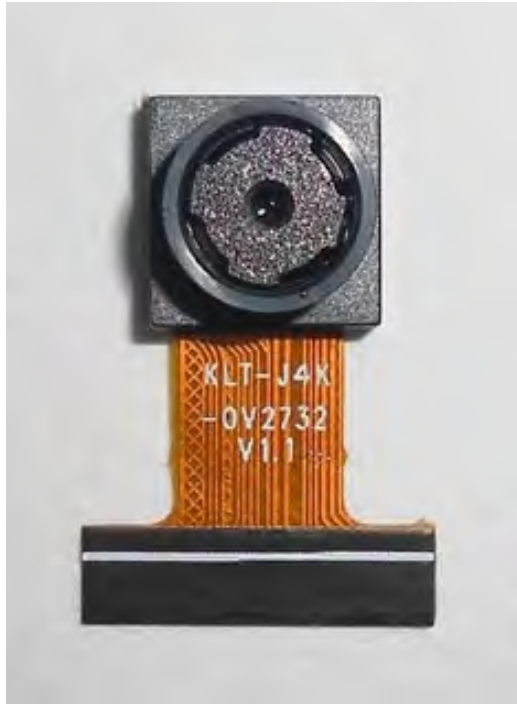
Complete with Lens Protection Film

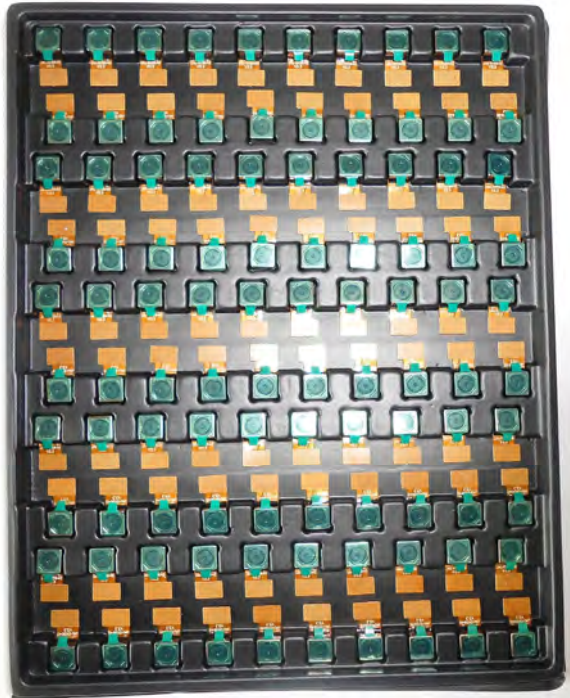Tray with Grid and Space

Place Cameras on the Tray
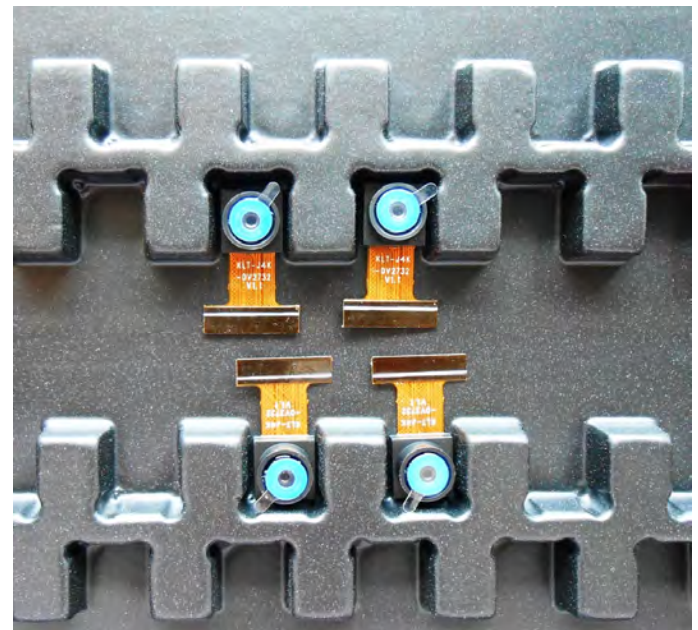
Camera Modules Package Solution

Full Tray of Cameras

Cover Tray with Lid

Put Tray into Anti-Static Bag

Vacuum the Anti-Static Bag
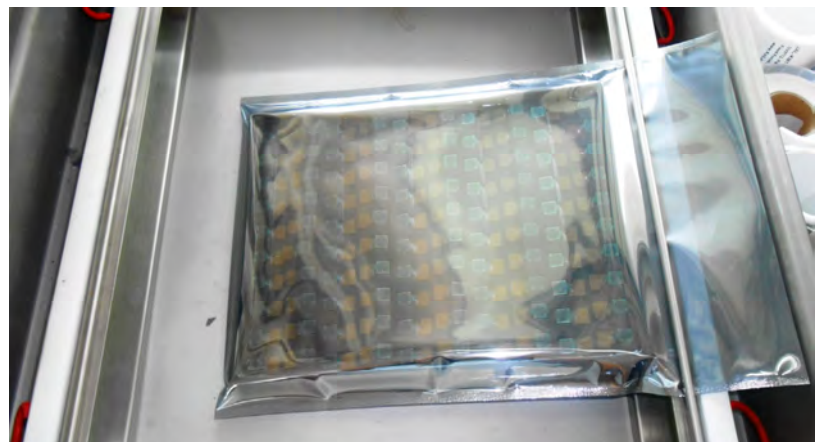
Camera Modules Package Solution

Sealed Vacuum Bag with Labels
1. Model and Description 2. Quantity 3. Shipping Date 4. Caution

KLT-J4K-OV2732 V1.1
OV2732, MIPI & Parallel
Fixed Focus, 67.4 Degree
www.KaiLapTech.com

100
PIECES

Shipping Date
10 August 2017

CAUTION
STATIC SENSITIVE
DEVICES
NOT TO BE HANDLED
BY UNAUTHORISED
PERSONNEL

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

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

Please deliver to:
Kai Lap Technologies Group Ltd.

Kai Lap Technologies Group Ltd.
64-66A Sha Tsui Road, Tsuen Wan
HONG KONG

Attn: Sharon Chan
Phone: + 852 6908 1256

KLT KLT Camera Modules
www.KaiLapTech.com

PKG:

1 of 1

10 August 2017
MADE IN CHINA

KLT KLT Camera Modules
www.KaiLapTech.com

fragile
HANDLE WITH CARE

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

KLT-J4K-OV2732 V1.1
OV2732, MIPI & Parallel
Fixed Focus, 67.4 Degree
www.KaiLapTech.com

Shipping Date
10 August 2017

CAUTION
STATIC SENSITIVE
DEVICES
NOT TO BE HANDLED
BY UNAUTHORISED
PERSONNEL

FH12-24S-0.5SH
Mating Connector for
KLT-J4K-OV2732 V1.0
www.KaiLapTech.com

10
PIECES

CAUTION
STATIC SENSITIVE
DEVICES
NOT TO BE HANDLED
BY UNAUTHORISED
PERSONNEL

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.

USB camera module
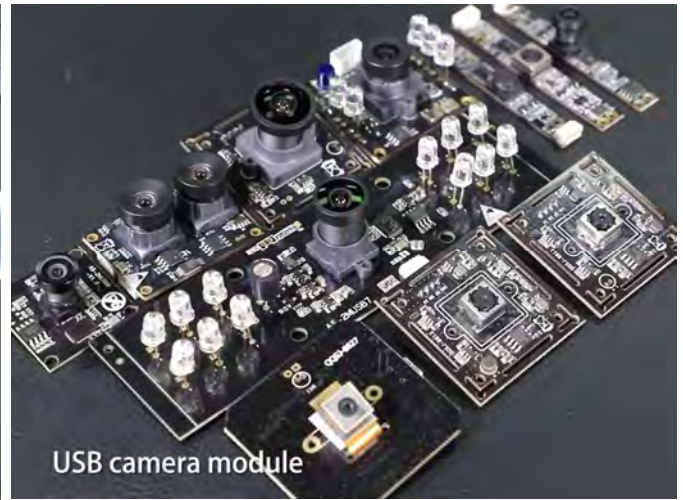
Limited Warranty

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 subsequential events.

KLT Strength

Powerful Factory

Professional Service

Promised Delivery