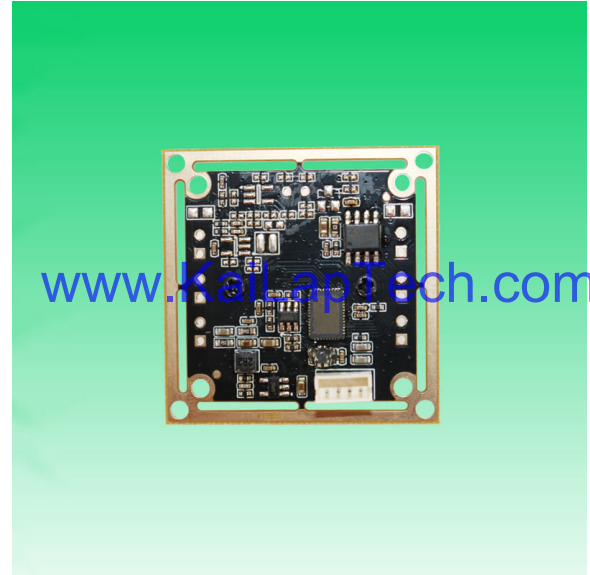


KLT-USB-0987 V14**2MP PrimeSensor PixArt PS5268 M12 Fixed Focus USB 2.0 Camera Module**

KLT-USB-0987 V14 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
- Adaptive dual size options 38x38mm or 32x32mm
- UVC compliant to Windows, Linux, OS with UVC driver
- USB OTG (On-The-Go) support



KLT-USB-0987 V14

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

Camera Module No.	KLT-USB-0987 V14
Resolution	2MP
Image Sensor	PS5268
Sensor Type	1/2.7"
Pixel Size	3.0 um x 3.0 um
EFL	2.60 mm
F.NO	2.20
Pixel	1920 x 1080
View Angle	112.0°(DFOV) 100.0°(HFOV) 80.0°(VFOV)
Lens Dimensions	13.20 x 13.20 x 23.20 mm
Module Type	Fixed Focus
Lens Model	KLT-LENS-JSD2625-D1
Interface	USB 2.0
Output Format	MJPEG / YUV2
Auto Control	Saturation, Contrast, Acutance White Balance, Exposure
Audio (Optional)	Digital Microphone, Single, Dual Channel
Input Voltage	DC 5V
Working Current	Max 500mA
PCB Size	38mm x 38 mm / 32mm x 32mm
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 Spy ZoneMinder, Yawcam
Lens Type	650nm IR Cut
Operating Temperature	-20°C to +70°C
USB Cable	KLT-Cable-U015

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



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KLT-USB-0987 V14

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



Top View

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Side View

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Bottom View



Mating Connector

**KLT-USB-0987 V14****2MP PrimeSensor PixArt PS5268 M12 Fixed Focus USB 2.0 Camera Module**

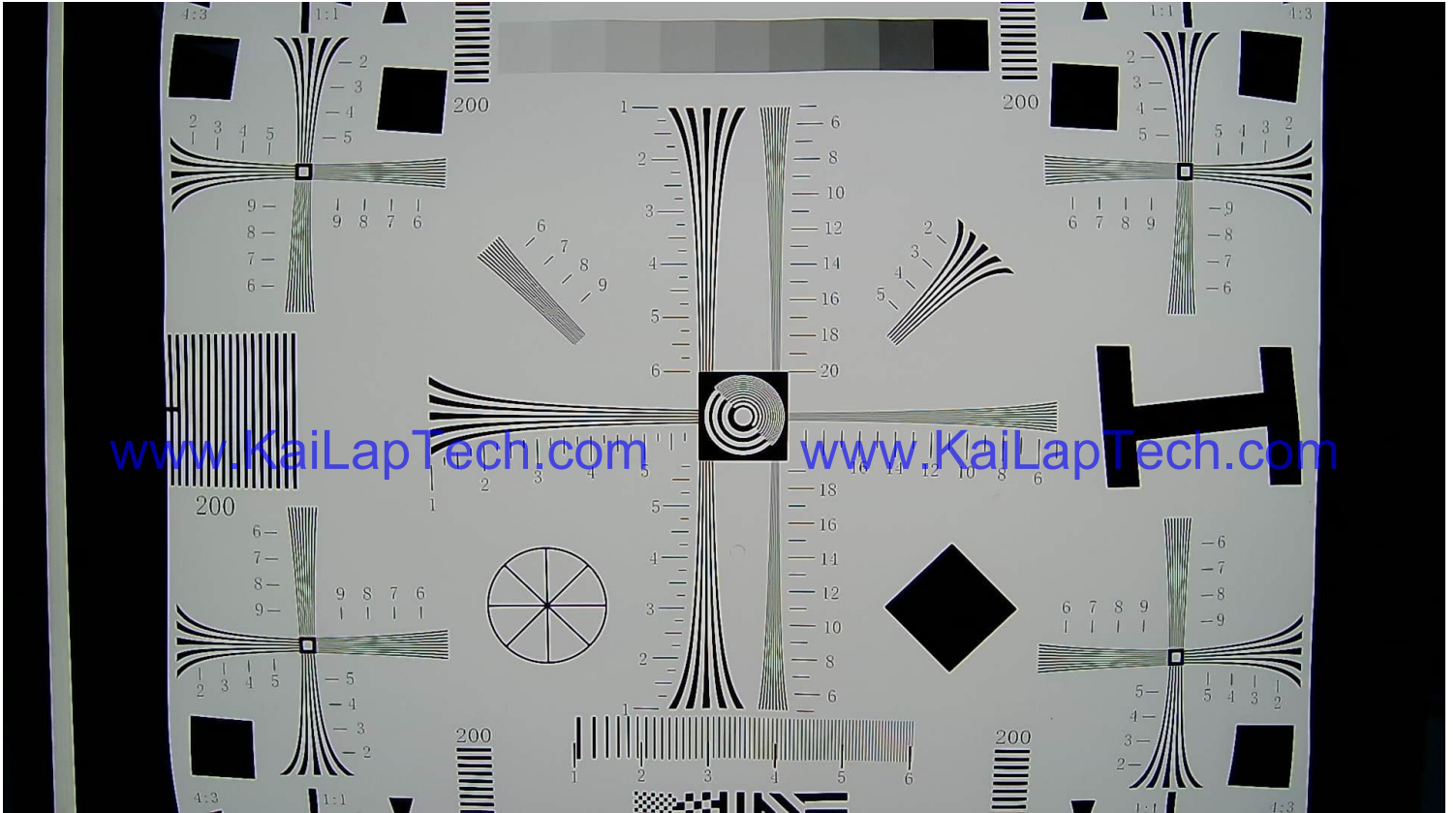
FORMAT	RESOLUTION	FRAME RATE
		USB 2.0
MJPG	640 x 480 (VGA)	30 FPS
	1280 x 720 (720P)	30 FPS
	1920 x 1080 (1080P)	30 FPS
YUY2	640 x 480 (VGA)	30 FPS
	1280 x 720 (720P)	10 FPS
	1920 x 1080 (1080P)	5 FPS







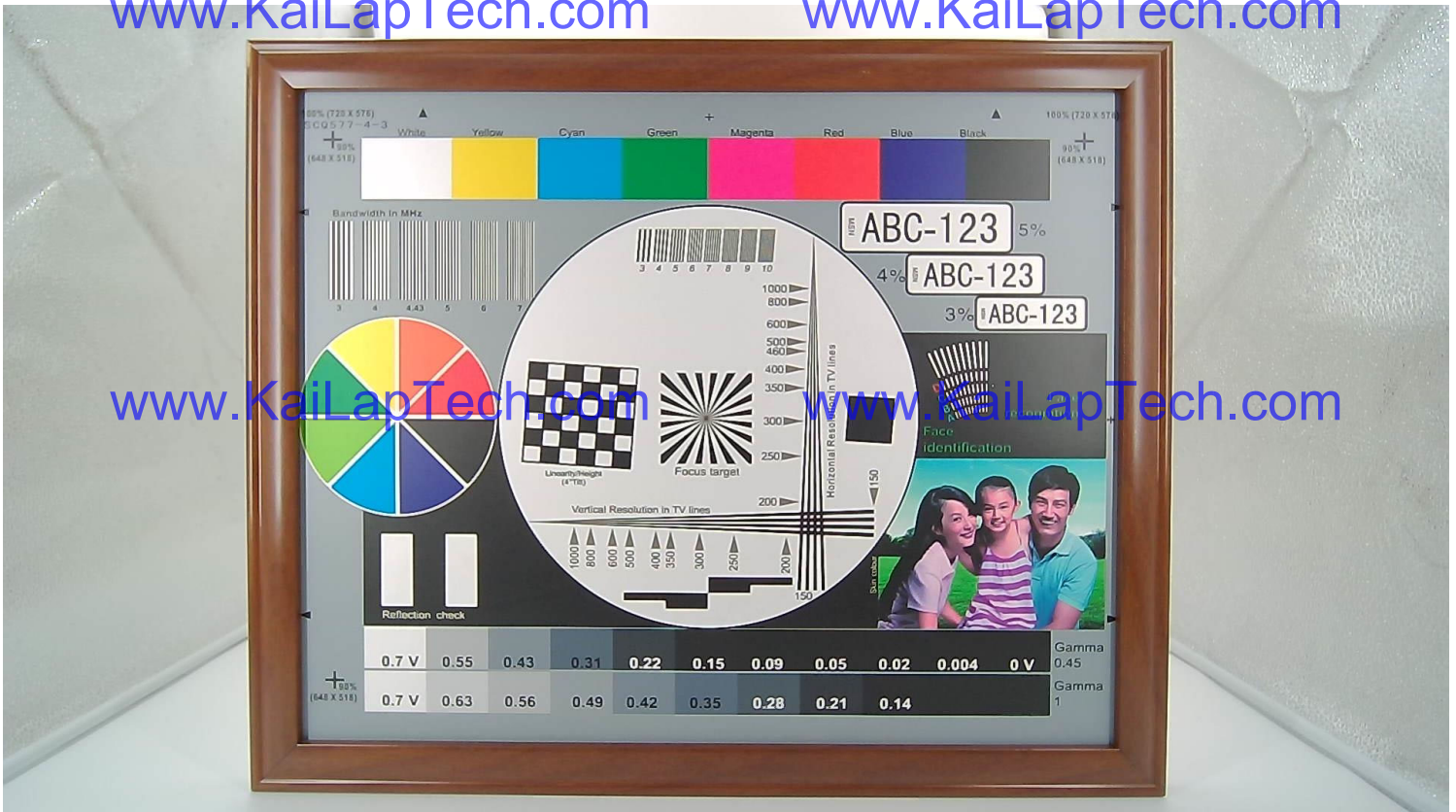
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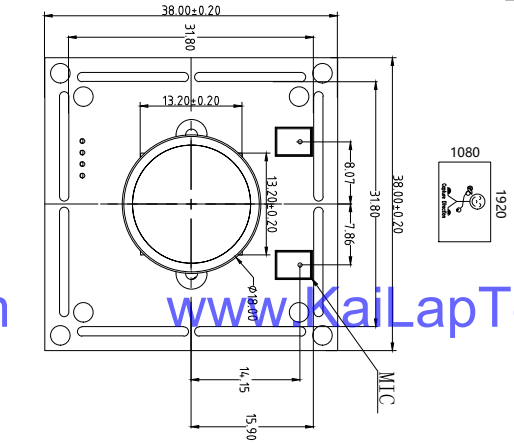
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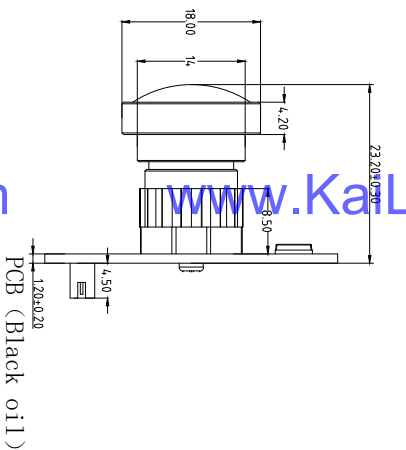
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Version	Information	Date
V1.0	First Version	5-30-2022

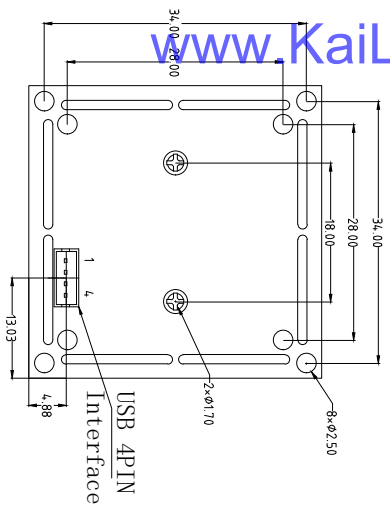
PIN NO	SIGNAL
PIN1	USB 5V
02	D-
03	D+
04	DGND



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Parameter:

- Sensor specification:
 - Image Sensor: PSS5268
 - Pixel: 3.0um×3.0um
 - Lens Type: 1/2.7
 - Important Voltage Description: USB 5V (external power supply);
- Lens specification:
 - FOV: 112°(D);100°(H);80°(V)
 - F/NO.: 2.2
 - TVDistortion: -3.28%
 - Focal length: 2.6
 - Composition: 4G2P+IR FILTER
 - IR Cut Coating: 650nm±10nm@50%

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Designed By	Kevin	Model Name:	KLT-USB-0987 V14	
Checked By	Aouly_Yan	Projection Type	Unit:	Material:
		Third Angle	mm	-----
			Scale:	Sheet:
			1:1	1 of 1
			Version:	1/0



Lens Model: KLT-LENS-JSD2625-D1

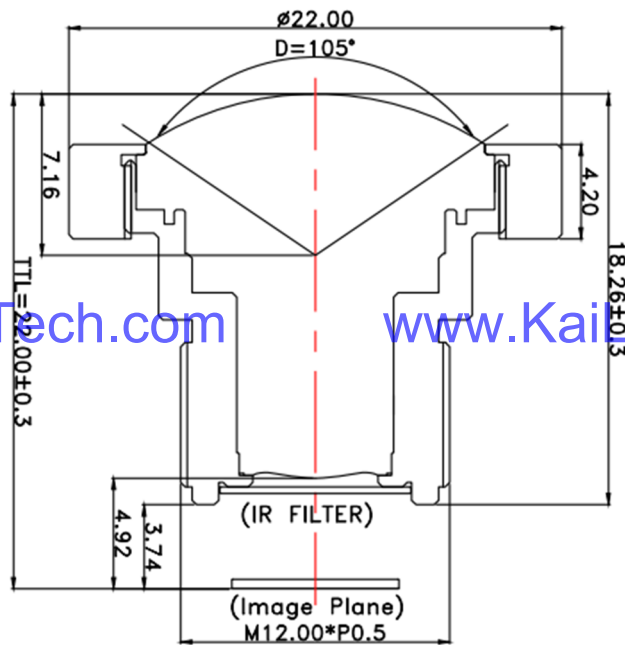
1. SPECIFICATION:

1. RESOLUTION 8M
2. MAX IMAGE CIRCLE $\phi 7.6$ mm
3. FOCAL LENGTH (EFL) $f = 2.8 \pm 5\%$ mm
4. F/NO (INFINITE) $F/NO = 2.4 \pm 5\%$
5. BACK FOCAL LENGTH BFL 4.92 ± 0.2 mm
6. FLANGE BACK LENGTH FB 3.74 ± 0.2 mm
7. Thread Size M12*P0.5
8. Element 6E+IR650
9. IR FILTER SPEC. (Built-in, Others available)
 Tavg >= 90% @ 440-620 nm
 T = 50% @ 650 ± 10 nm
 Tavg <= 3% @ 700-1000 nm
 T < 5% @ 1050 nm

NOTE	SPECIFICATION	
Sensor	1/2.5" IMX274	
FOV	Vertical	80°y=2.17mm
	Horizontal	100°y=3.04mm
	Diagonal	112°y=3.73mm
TV-DISTORTION	< 3.28%	
Relative Ill.	> 55%	
CRA	< 19°	

2. OPTICAL LAYOUT:

REV	DESCRIPTION	DATE	NAME	NAME	VIEW	REV	SCALE	DRAWN
①	新規作成	2019.5.28					00	



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



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Cameras Applications



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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
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**





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Large Order Package Solution

Place Foam Sheets Between Trays

Foam Sheets are Slightly Larger than Trays



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Place Foam Sheets and Trays into Box

Foam Sheets are Tightly Fitting Box



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Small Order Package Solution

Place Foam Sheets and Trays into Small Box



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Package in Small Box for Shipment

Foam Sheets are Nicely Fitting the Small Box



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Place Small Boxes into Larger Box



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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.

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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.





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KLT Strength

Powerful Factory



Professional Service



Promised Delivery



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