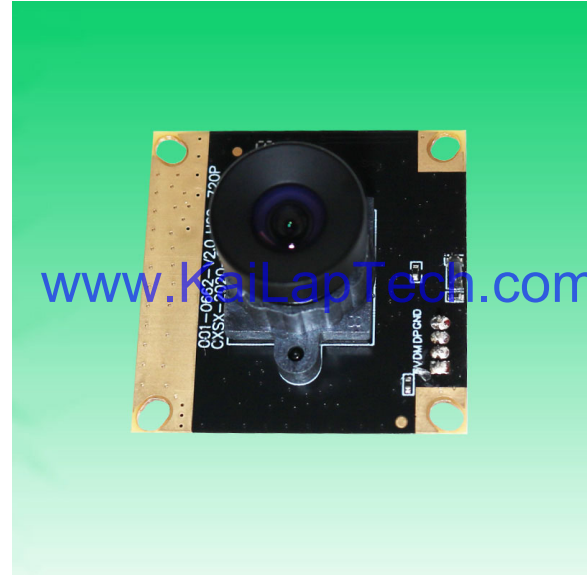
**KLT-USB-0662 V1****1MP Silicon Optronics JX-H62 M12 Fixed Focus USB 2.0 Camera Module**

KLT-USB-0662 V1 is a 1MP Fixed Focus USB camera module based on 1/4" JX-H62 image sensor. It delivers high-speed, 720P resolution clear image.

The S-mount (M12) lens holder enables customers to choose different lens as per varies applications. This camera module is ideal solution for face recognition, identity detection, automotive, access control.

**Key Features**

- 720P resolution (1280 x 720) Silicon Optronics JX-H62 sensor
- High speed USB 2.0 Plug and Play
- MJPG and YUV2 output format
- Low power consumption
- Compact size
- UVC compliant to Windows, Linux, OS with UVC driver
- USB OTG (On-The-Go) support



## KLT-USB-0662 V1

### 1MP Silicon Optronics JX-H62 M12 Fixed Focus USB 2.0 Camera Module

Camera Module No.	KLT-USB-0662 V1
Resolution	1MP
Image Sensor	JX-H62
Sensor Type	1/4"
Pixel Size	3.0 um x 3.0 um
EFL	3.00 mm
F.NO	2.40
Pixel	1280 x 720
View Angle	75°(DFOV)
Lens Dimensions	13.80 x 13.80 x 16.90 mm
Module Type	Fixed Focus
Lens Model	KLT-LENS-0662 V1
Interface	USB 2.0
Output Format	MJPEG / YUV2
Auto Control	Saturation, Contrast, Acutance White Balance, Exposure
Audio	None
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	-30°C to +85°C
USB Cable	KLT-Cable-U015

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





## KLT-USB-0662 V1

### 1MP Silicon Optronics JX-H62 M12 Fixed Focus USB 2.0 Camera Module



Top View

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Side View

[www.KaiLapTech.com](http://www.KaiLapTech.com)



Bottom View

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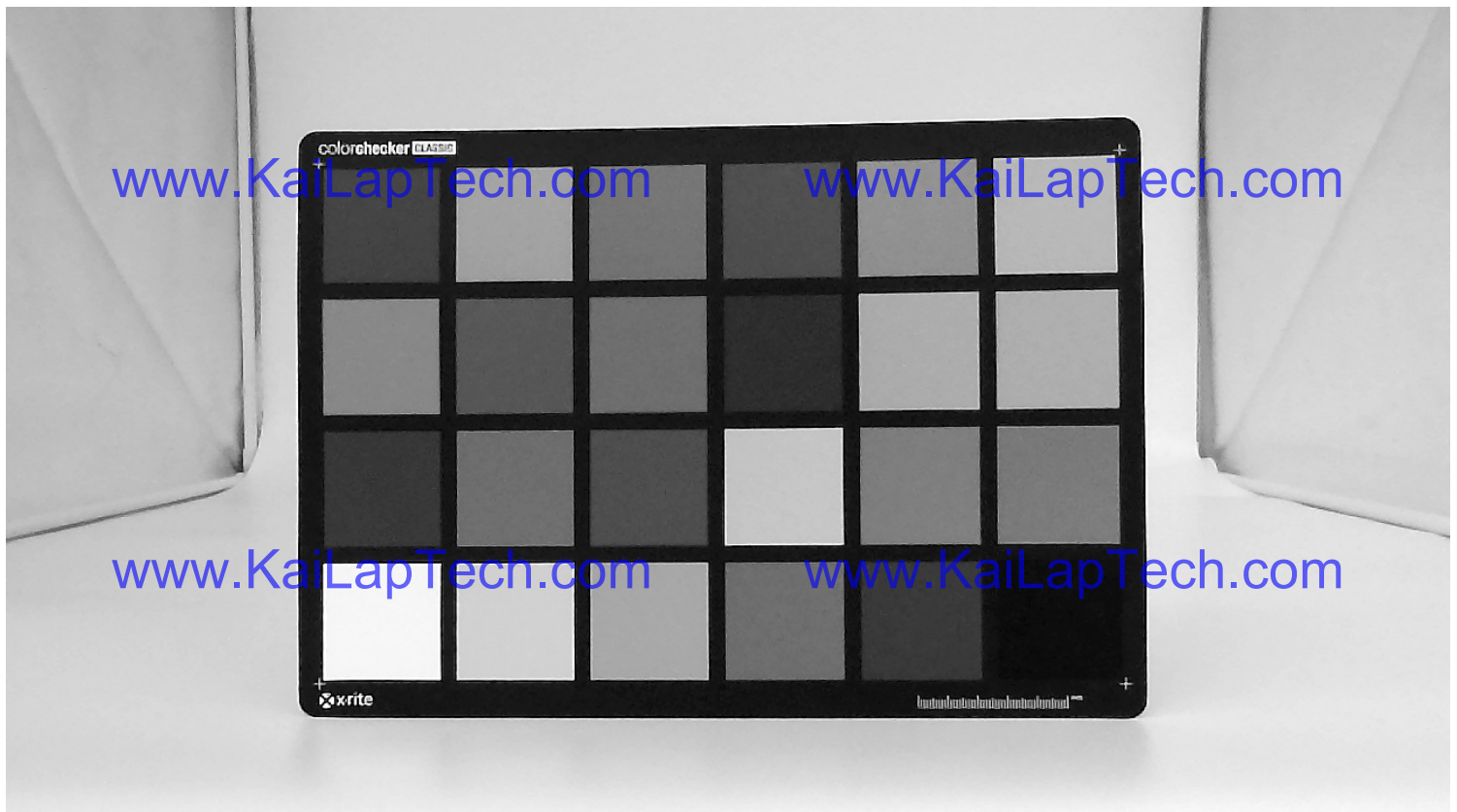


Mating Connector

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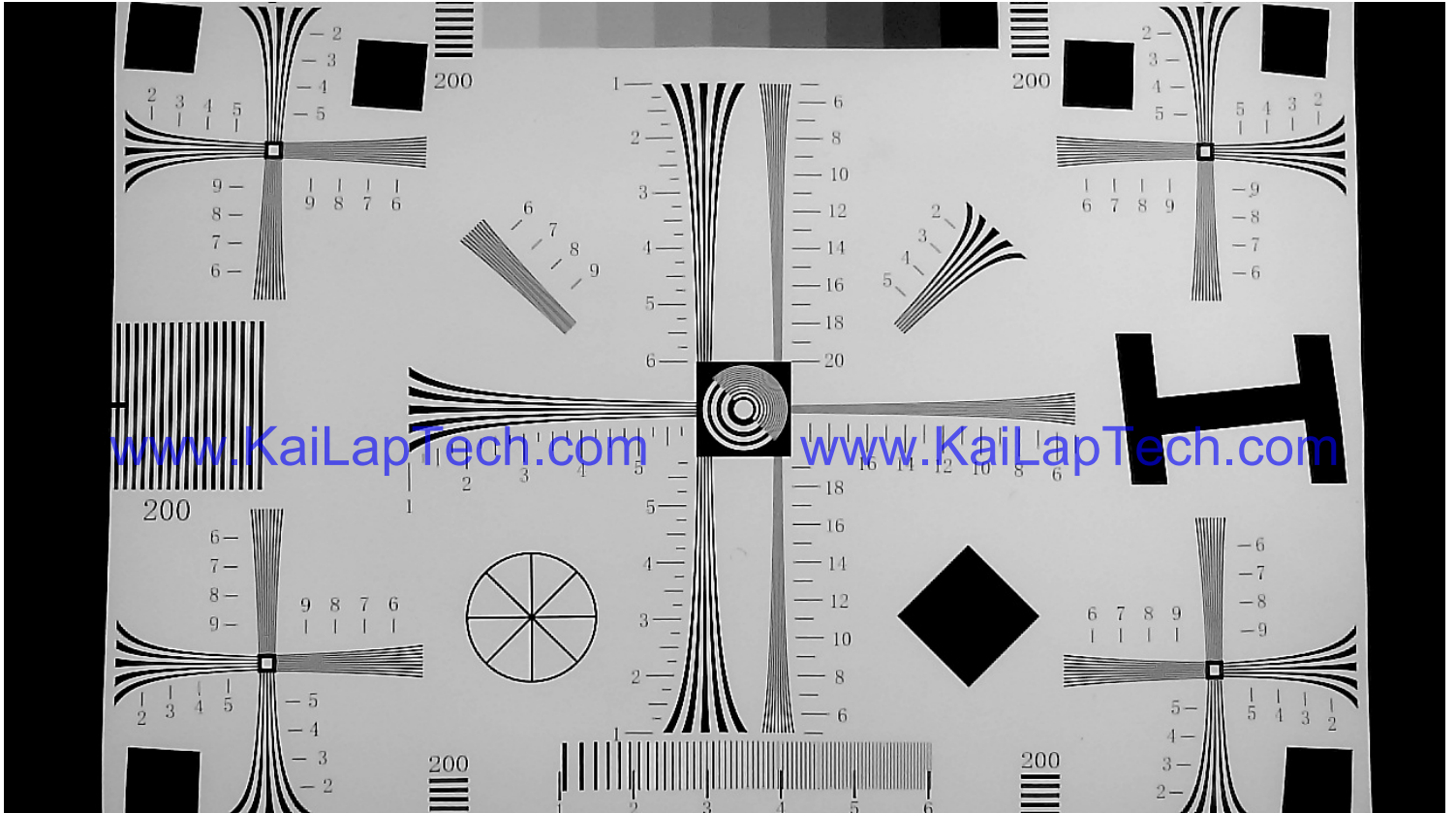
**KLT-USB-0662 V1****1MP Silicon Optronics JX-H62 M12 Fixed Focus USB 2.0 Camera Module**

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





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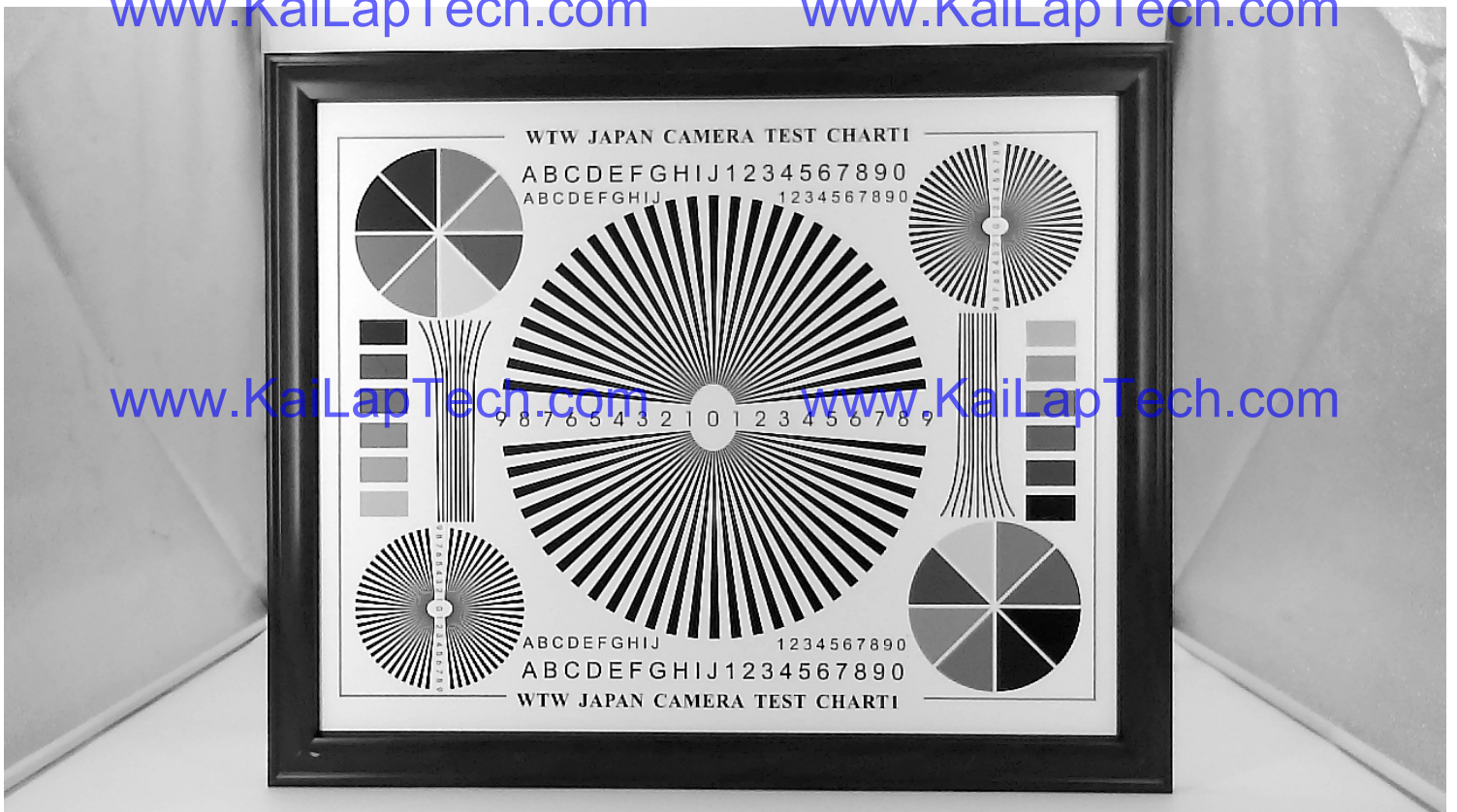


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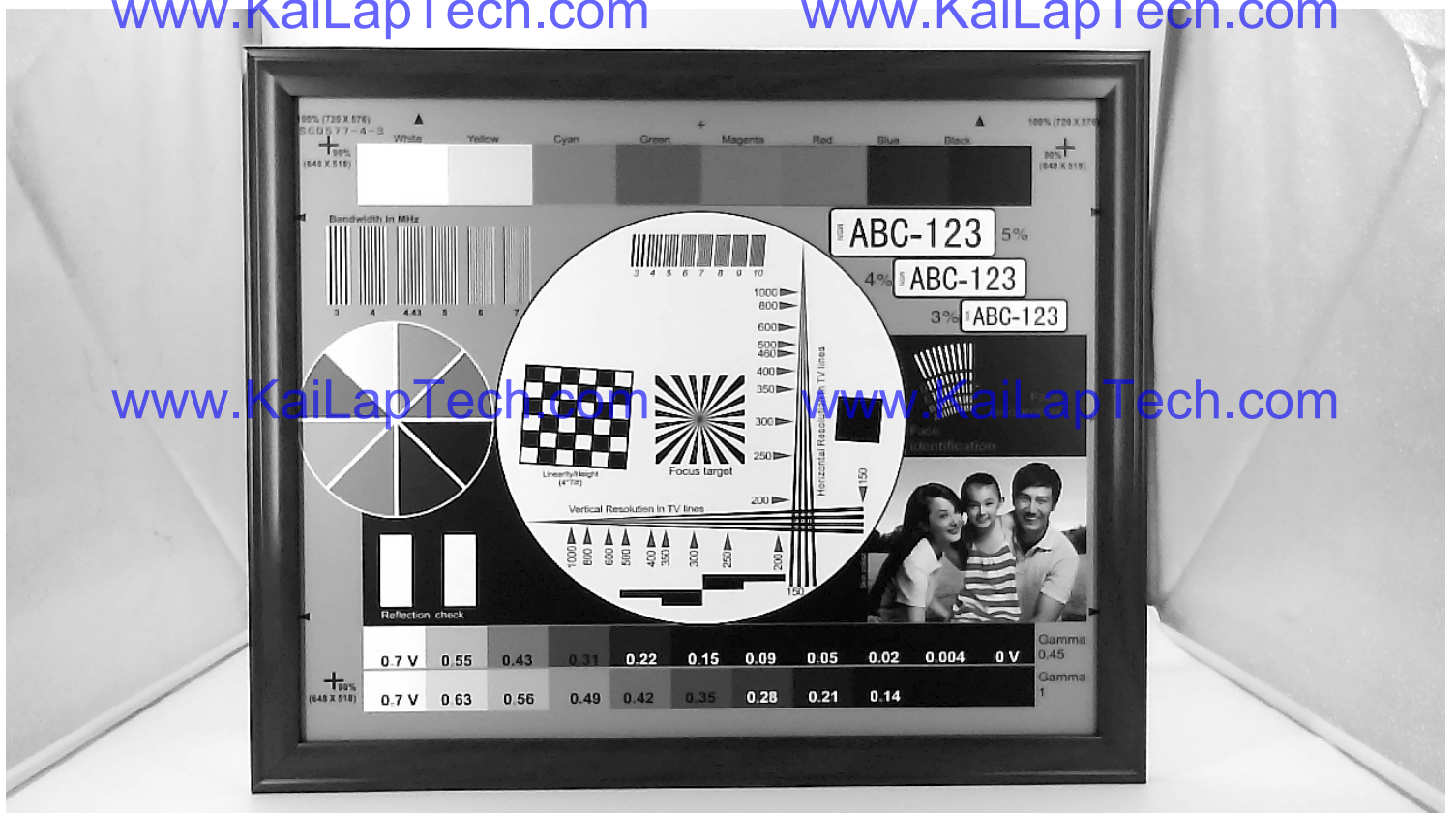
[www.KaiLapTech.com](http://www.KaiLapTech.com)



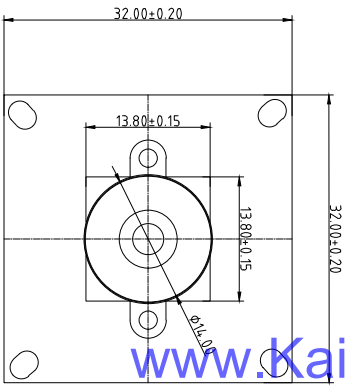
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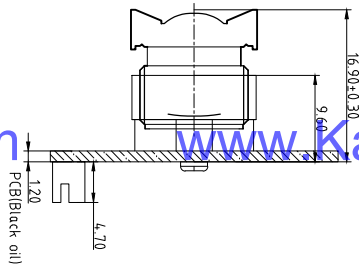




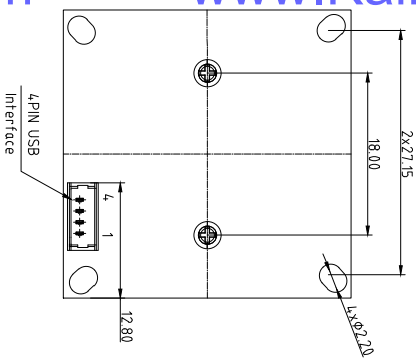
NO.	SYMBOL
1	VDD 5V
2	D-
3	D+
4	GND



TOP VIEW



SIDE VIEW



BOTTOM VIEW

**Parameters:**

1. **Sensor specification:**

Image Sensor: JXH62

Pixel: 3um×3um

Lens Type: 1/4

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

2. **Lens specification:**

FOV: 75°(D)

F#(f#): 2.4

TVDistortion: < 1%

Focal length: 3.0mm

Composition: 2G2P+IR FILTER

IR Cut Coating: 650nm±10nm@50%

Kai Lap Technologies Group Ltd

Designed By

Kevin

Model Name:

KLT-USB-003-0662

Checked By

Jacky

Projection Type:  
Third Angle

Unit: mm

Scale: 1:1

Sheet: 1 of 1

Version: 1/0

A

B

C

D

E

3

2

1

3

2

1



### General Description:

JX-H62 is an HD CMOS image sensor designed with a superior 3.0µm pixel with excellent low-light sensitivity and low dark current performance. It features a 30fps native high definition (HD) 720p video capability for camera applications in PC multimedia, security, and entertainment devices.

The JX-H62 consists of a 1296x732 active pixel sensor (APS) array with an on-chip 10-bit ADC, programmable gain control (PGA), and correlated double sampling (CDS) to significantly reduce fixed pattern noise (FPN). The sensor also has many standard programmable and automatic functions. It has both the industry compliant DVP parallel and MIPI CSI2 serial interfaces. The external host controller can access this device through a standard serial interface.

It is available in wafer-level packaged CSP.

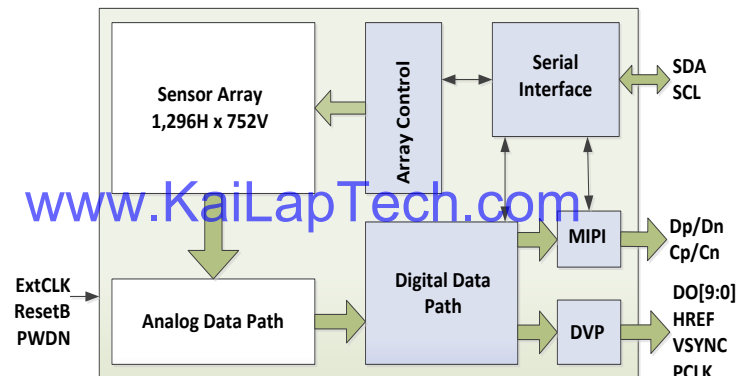
### Features:

- Automatic functions:
  - AEC – Automatic Exposure Control
  - AGC – Automatic Gain Control
  - ABLC – Automatic Black Level Calibration
- Programmable controls:
  - Gain, exposure, frame rate and Size
  - Image mirror and flip
  - Window panning and cropping
  - I2C slave ID
- Output formats:
  - DVP parallel interface
  - MIPI CSI2 1 Lane
- Data formats:
  - 10-bit RAW RGB
- Others
  - 50/60Hz flick noise cancellation
  - Register group write capability
  - Frame synchronization
  - Black sun spot cancellation

### Key Specifications:

<b>Optical format</b>	1/4"	
<b>Active Pixels</b>	1296H x 732V	
<b>Pixel size</b>	3.0 x 3.0 µm	
<b>Color filter array</b>	RGB Bayer pattern	
<b>Chief Ray Angle</b>	17.5 degrees linear	
<b>Shutter type</b>	Electronic rolling shutter	
<b>Maximum Frame Rate</b>	30fps	
<b>Supply voltage</b>	<b>Digital</b>	1.35 – 1.65V (1.5V nominal)
	<b>Analog</b>	2.6 – 3.0V (2.8V nominal)
	<b>I/O</b>	1.7 – 3.0V (1.8V nominal)
<b>Power consumption</b>	<b>Active</b>	45mA
	<b>Standby</b>	< 300 µA
<b>Output Formats</b>	10-bit RGB Raw Data	
<b>Sensitivity</b>	TBD mV/lux-sec	
<b>Max SNR</b>	TBD db	
<b>Dynamic Range</b>	TBD db	
<b>Dark Current</b>	<TBD mV/sec @ 45C	
<b>Operating junction temperature</b>	-30 °C to 85 °C	
<b>Stable image junction temperature</b>	TBD	

### Functional Block:



### Component Order Information:

Part Number	Description
JX-H62-C1	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



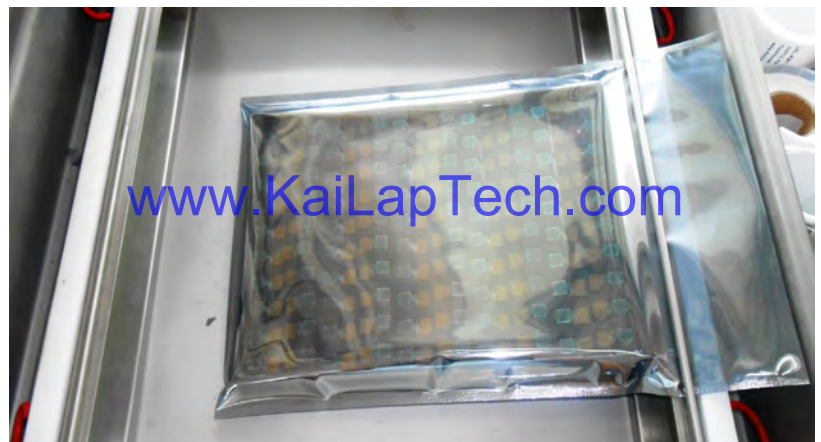
Cover Tray with Lid



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**





# CMOS CAMERA MODULES



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## Large Order Package Solution

Place Foam Sheets Between Trays

Foam Sheets are Slightly Larger than Trays

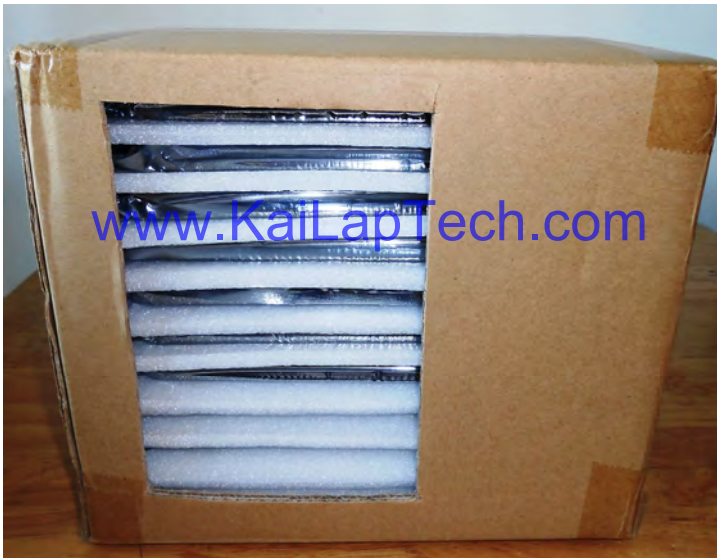


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Place Foam Sheets and Trays into Box

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



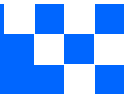
Place Connectors into Small Ant-Static Bag



### 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](http://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



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