

KLT-PC5693 V1.2_F3

Modulo telecamera USB 2.0 OmniVision OV5693 da 5 MP con messa a fuoco fissa e distanza di messa a fuoco di 3 cm



KLT-PC5693 V1.2_F3 è un modulo telecamera USB a fuoco fisso da 5 MP basato su sensore di immagine OV5693 da 1/4". Il fuoco fisso cattura immagini nitide a una distanza di messa a fuoco di 3 cm. Offre immagini ultra nitide ad alta velocità con risoluzione 2K.

La telecamera è dotata di una funzione di fuoco fisso dedicata e ad alte prestazioni, che offre la migliore uscita video e immagini della categoria. Questo modulo telecamera è la soluzione ideale per droni, automotive, agricoltura, apparecchiature mediche e monitoraggio del traffico.

Caratteristiche principali

- Sensore OmniVision OV5693 da 2592 x 1944
- USB 2.0 Plug and Play ad alta velocità
- Formati di uscita MJPG e YUV2
- Basso consumo energetico
- Dimensioni compatte
- Conforme UVC a Windows, Linux, OS con driver UVC
- Supporto USB OTG (On-The-Go)

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Modulo telecamera n.	KLT-PC5693 V1.2_F3
Risoluzione	5 MP
Sensore di immagine	OV5693
Tipo di sensore	1/4"
Dimensione Pixel	1.4 μm x 1.4 μm
EFL	3.20 mm
F.NO	2.80
Pixel	2592 x 1944
Angolo di visione	70.0°(DFOV) 58.6°(HFOV) 45.3°(VFOV)
Dimensioni delle lenti	8.50 x 8.50 x 5.60 mm
Tipo di modulo	Messa a fuoco fissa con distanza di messa a fuoco di 3 cm
Interfaccia	USB 2.0
Formato di output	MJPEG / YUV2
Controllo automatico	Saturazione. Contrasto. Acutezza. Bilanciamento del bianco. Esposizione
Audio	Nessuno
Tensione di ingresso	CC 5V
Corrente di lavoro	Massimo 500 mA
Dimensioni del PCB	60.00 x 8.50 mm
Compatibilità del sistema	Windows XP (SP2. SP3). Vista. 7. 8. 10. 11 Android. Mac OS. Linux o OS con driver UVC Raspberry Pi tramite porta USB
Software per fotocamera USB	AMCAP. Webcam Viewer. V4L2 controlla Contacam. VLC Player. MotionEye OS iSpy. ZoneMider. Yawcam
Tipo di lente	Taglio IR a 650 nm
Temperatura di esercizio	da -30°C a +70°C
Cavo USB	USB Cable

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



Raspberry Pi

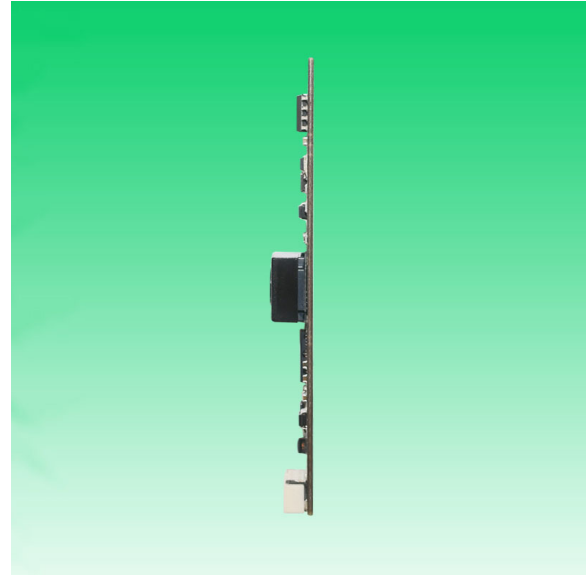
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Vista dall'alto



Vista laterale



Vista dal basso

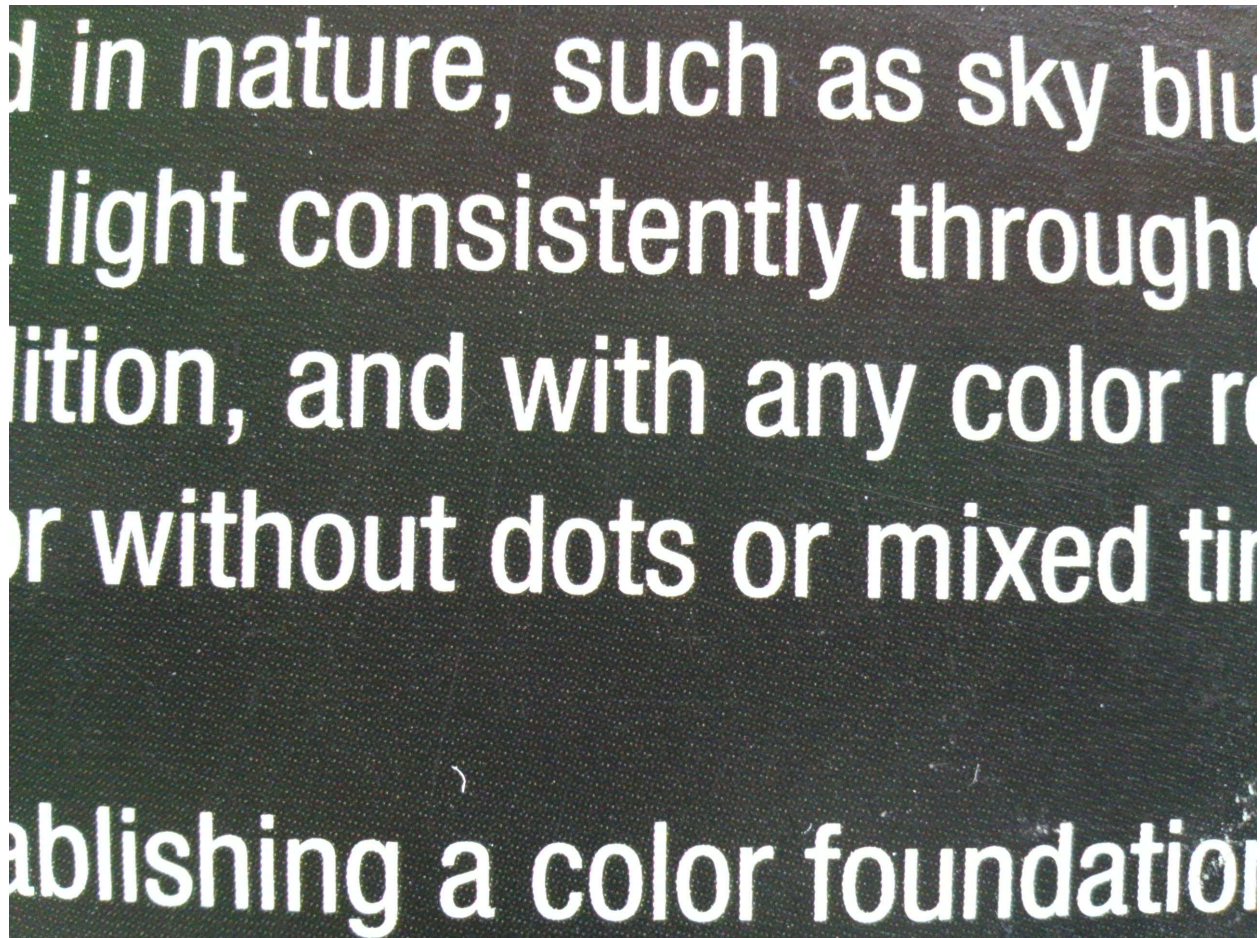


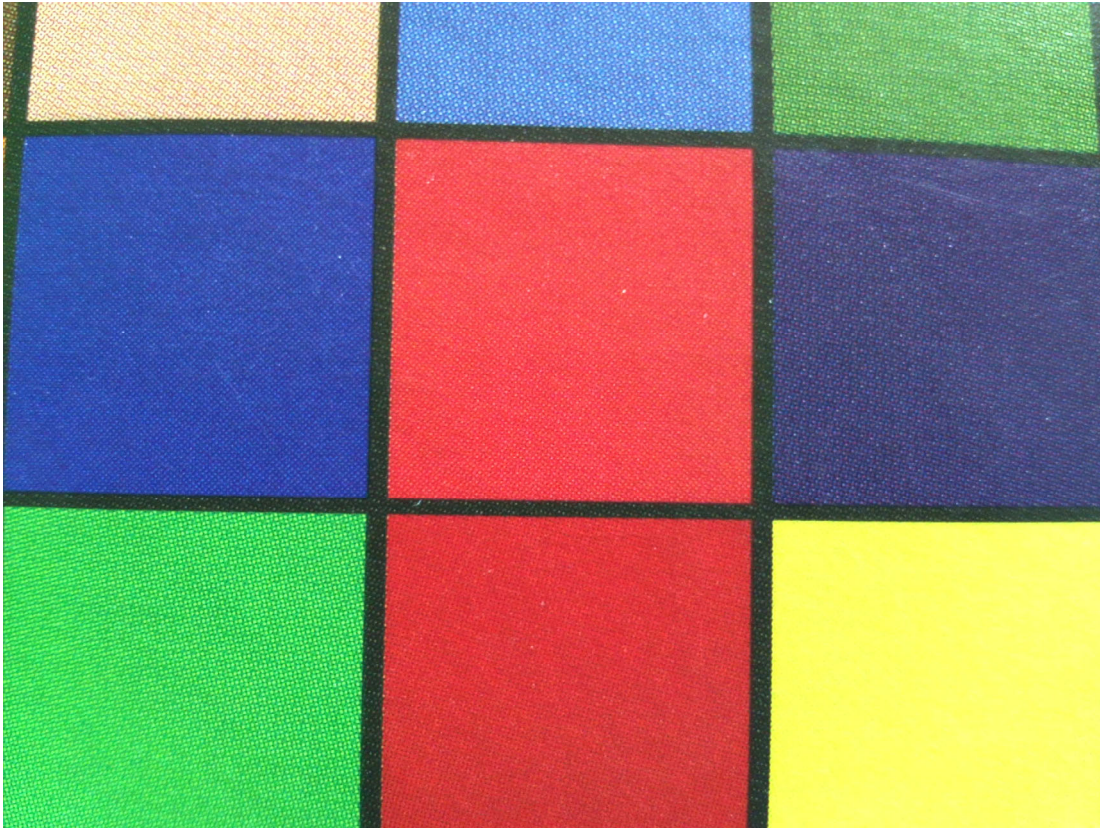
Cavo USB

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FORMATO	RISOLUZIONE	FREQUENZA DEI FOTOGRAMMI
		USB 2.0
MJPG	640 x 480 (VGA)	15 FPS
	1280 x 720 (720P)	15 FPS
	1920 x 1080 (1080P)	15 FPS
	2592 x 1944 (5MP)	15 FPS
YUV2	640 x 480 (VGA)	15 FPS
	1280 x 720 (720P)	10 FPS
	1920 x 1080 (1080P)	5 FPS
	2592 x 1944 (5MP)	3 FPS





主要成分：全木浆湿强纸、非离子表
使用方法：撕开包装，展开湿巾，在镜
适用范围：各类眼镜、镜片、镜头的表
车后视镜等。

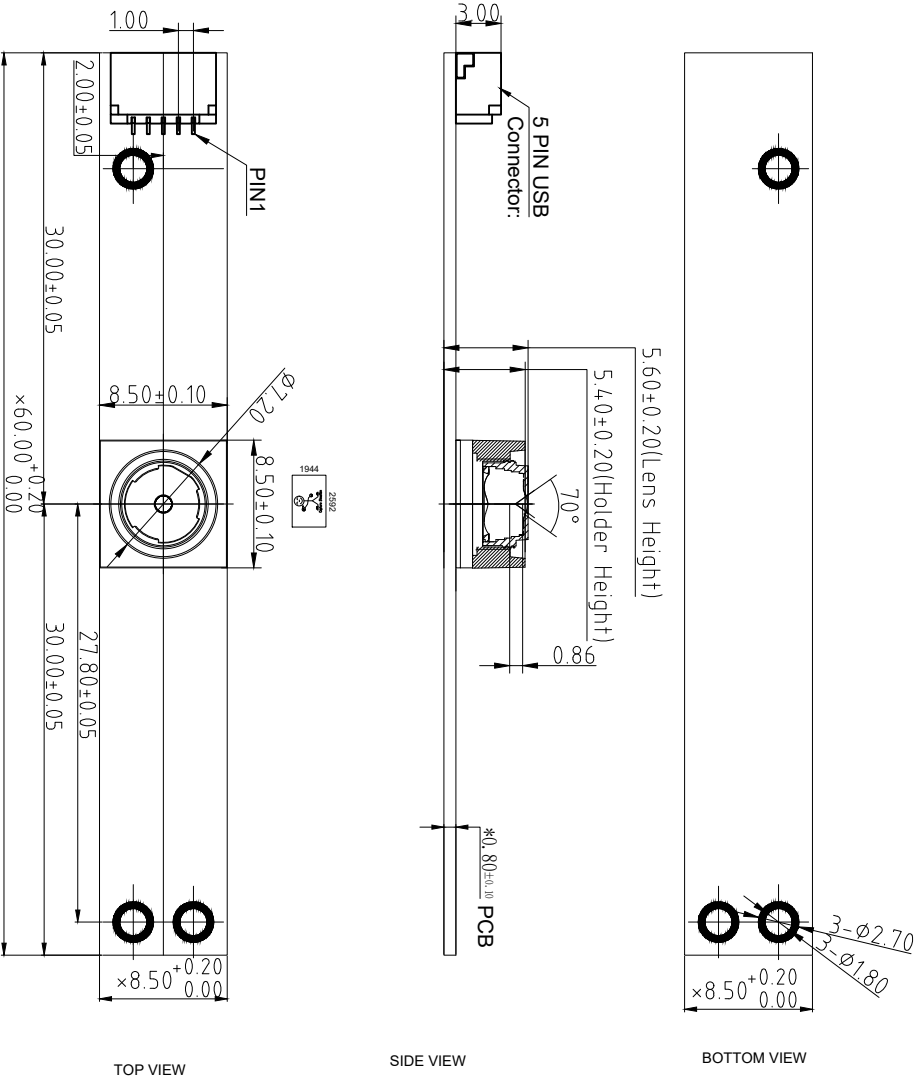
注意事项：撕开包装后请立即使用。

佛山市怡莹卫生用品有限公司



Information	
Version	First Version
V1.0	Second Version
V1.2	

PIN NO	SIGNAL
PIN1	USB 5V
02	D-
03	D+
04	GND
05	shedding GND



Parameters:

1、Sensor specification:

Image Sensor: OV5693
Pixel: 1.4um×1.4um
Lens Type: 1/4
(external power supply); DC 5V

2、Lens specification:

FOV: 70°(D);58.6°(H);45.3°(V)
F/NO.: 2.8
TV distortion: <1.0%
Focal length: 3.2mm
Composition: 4P+IR FILTER
IR Cut Coating: 650nm±10nm@50%

Kai Lap Technologies Group Ltd

Designed By	Kevin	Model Name:	KLT-PC5693 V1.2__F3		
Checked By	Aouly Yan	Projection Type:	Unit:	Date:	
		Third Angle	mm	11/20/2024	
		Scale:	Sheet:	Version:	
		1:1	1 of 1	1/0	



OV5693 5-megapixel product brief



available in
a lead-free
package

High-Performance 5-Megapixel Image Sensor for Front-Facing Cameras in Flagship Smartphones and Tablets

The OV5693 is OmniVision's highest performance 1/4-inch, 5-megapixel image sensor, delivering DSC-quality imaging and low-light performance as well as full 1080p high-definition video recording at 30 frames per second (fps). Using OmniVision's proprietary 1.4-micron OmniBSI-2™ pixel architecture, the OV5693 provides best-in-class low-light performance and image quality in a slim camera module. This makes the OV5693 an ideal camera solution for slim flagship smartphones and tablets, providing exceptional 5-megapixel "selfie" images and high-quality 1080p video.

Leveraging OmniVision's second-generation industry-leading backside illumination pixel technology, the OV5693 offers full resolution 5-megapixel images at 30 fps, an integrated scaler, and 2x2 binning

functionality with re-sampling filter. The scaler enables electronic image stabilization, while maintaining full field-of-view in both 720p and 1080p HD video modes. The 2x2 binning functionality, which features a post-binning re-sampling filter, further increases the sensor's sensitivity, while minimizing spatial artifacts and removing image artifacts around edges to produce crisp, clean color images.

The sensor features a high-speed 2-lane MIPI interface running up to 900 Mbps per lane and fits into an industry standard module size of 8.5 x 8.5 mm with a z-height of 4.2 mm for an autofocus module.

Find out more at www.ovt.com.



OmniVision

Applications

- Cellular and Mobile Phones
- Digital Still Cameras (DSC)
- Digital Video Camcorders (DVC)
- PC Multimedia
- 3D Cameras

Product Features

- automatic black level calibration (ABLC)
- programmable controls for frame rate, mirror and flip, cropping, windowing, and scaling
- image quality controls: lens correction and defective pixel canceling
- supports output formats: 10-bit RAW RGB (MIPI)
- supports horizontal and vertical subsampling
- supports images sizes: 5MP, EIS1080p, 1080p, 720p, VGA, QVGA
- fast mode switching
- supports 3D applications
- support 2x2 binning, full scalar
- standard serial SCCB interface
- up to 2-lane MIPI serial output interface
- embedded 512 bytes one-time programmable (OTP) memory for part identification, etc.
- two on-chip phase lock loop (PLL)
- programmable I/O drive capability
- built-in 1.2V regulator for core
- built-in temperature sensor
- supports alternate row HDR timing

OV5693



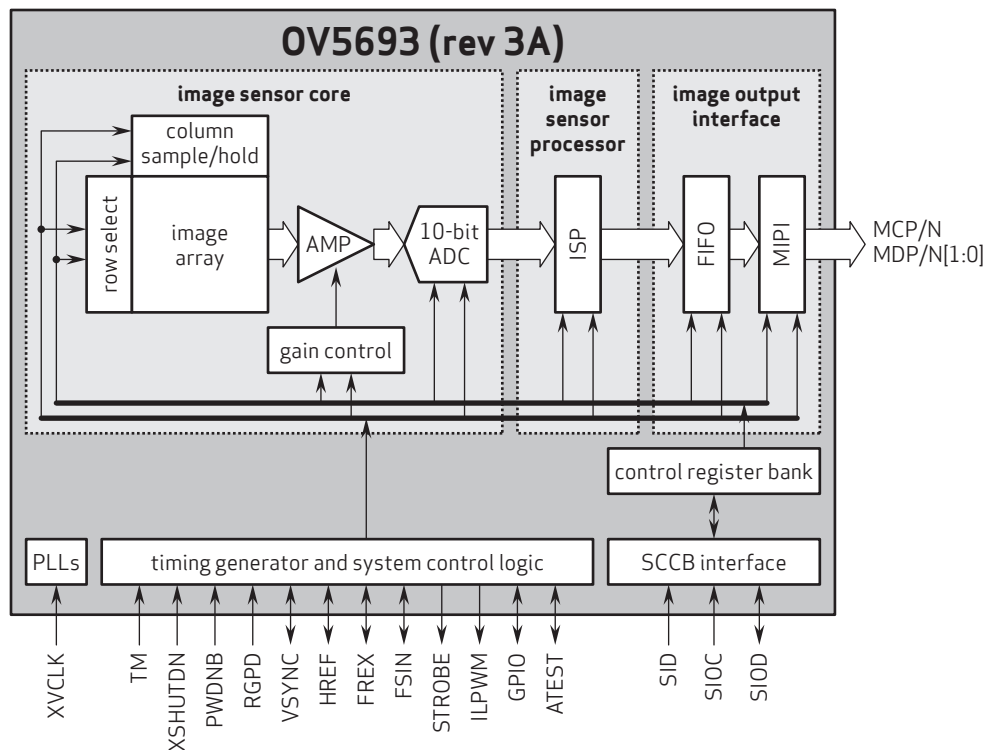
Ordering Information

- OV05693-G06H-3A**
(color, chip probing, 180 μ m backgrinding, reconstructed 8" wafer with good die)
- OV05693-G36H-3A**
(color, chip probing, 180 μ m backgrinding, reconstructed 12" wafer with good die)

Product Specifications

- active array size:** 2592 x 1944
- power supply:**
 - core: 1.16 - 1.3V (1.2V typical)
 - analog: 2.6 - 3.0V
 - I/O: 1.7 - 3.0V
- power requirements:**
 - active: 239 mW
 - XSHUTDN: 1 μ W
- temperature range:**
 - operating: -30°C to +70°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- output formats:** 10-bit RGB RAW
- lens size:** 1/4"
- lens chief ray angle:** 29.7° non-linear
- input clock frequency:** 6 - 27 MHz
- max S/N ratio:** 37.1 dB
- dynamic range:** 68.0 dB @ 8x gain
- maximum image transfer rate:**
 - 5MP: 30 fps
 - EIS1080p: 30 fps
 - 1080p: 30 fps
- sensitivity:** 1000 mV/lux-sec
- scan mode:** progressive
- pixel size:** 1.4 μ m x 1.4 μ m
- dark current:** 3.3 mV/sec @ 60°C junction temperature
- image area:** 3673.6 μ m x 2738.4 μ m
- dimensions:**
 - COB: 5350 μ m x 4800 μ m
 - RW: 5400 μ m x 4850 μ m

Functional Block Diagram



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