

**KLT-K5MF-OV12895 V1.0**

**OmniVision OV12895 MIPI Interfaccia Messa a fuoco fissa 12MP M12  
Modulo telecamera**

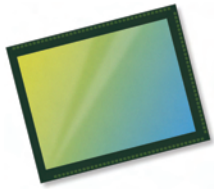


<b>Modulo telecamera n.</b>	<b>KLT-K5MF-OV12895 V1.0</b>
<b>Sensore d'immagine</b>	OV12895
<b>EFL</b>	3.3 mm
<b>F.NO</b>	2.8
<b>Pixel</b>	4096 x 3072
<b>Vista ad angolo</b>	150°(D) 110°(H) 80°(V)
<b>Tipo di lente</b>	1/2.3 pollice
<b>Dimensioni dell'obiettivo</b>	14.70 x 14.70 x 19.92 mm
<b>Dimensione del modulo</b>	40.00 x 23.00 mm
<b>Tipo di modulo</b>	Messa a fuoco fissa
<b>Interfaccia</b>	MIPI

**Connettore di accoppiamento Codice. AXE540124**



Connettore di accoppiamento sulla scheda principale. Venduto separatamente.



# OV12895 12MP product brief



## 12-Megapixel PureCel®Plus-S Sensor for High-End Consumer Drones and Action Cameras

Lead free  
available in  
a lead-free  
package

OmniVision's OV12895 is a high-speed PureCel®Plus-S image sensor that brings 4K2K video and 12-megapixel images to consumer-grade drones, surveillance systems, and 360-degree action cameras. Leveraging a 1.55-micron pixel, the OV12895 captures stunning still images using 10-bit or optional 12-bit readout architecture that provides high-bit depth snapshots.

The OV12895 is built on OmniVision's PureCel Plus-S stacked-die architecture, featuring backside illumination for ultra-high resolution and crisp, vibrant images across all light levels. The stacked-die structure allows for additional sensor functionality while enabling smaller die sizes compared to non-stacked sensors.

The OV12895 captures ultra-high-resolution 4K2K video at 60 frames per second (fps) and full high-definition (FHD) 1080p videos at 240 fps with full field of view, enabling high-quality slow-motion video capture.

Available in the widely used 1/2.3-inch optical format, the OV12895's low chief ray angle of 5 degrees is suitable for mature lens ecosystems. The sensor currently is available in both RW and CLGA package formats.

Find out more at [www.ovt.com](http://www.ovt.com).



## Applications

- Consumer-grade Drones
- 360-degree Action Cameras
- Surveillance Systems

## Product Features

- 1.55  $\mu\text{m}$  x 1.55  $\mu\text{m}$  pixel
- optical size of 1/2.3"
- 5° CRA
- enhanced dual camera support
- high-speed architecture for fast frames per second (fps)
- programmable controls for:
  - frame rate
  - mirror and flip
  - cropping
  - windowing
  - gain
  - exposure
- support for image sizes:
  - 12MP (4096x3072)
  - 4K2K (3840x2160)
  - 1080p (1920x1080), and more
- two-wire serial bus control (SCCB)
- strobe output to control flash
- embedded 13.5kbits of one-time programmable (OTP) memory
- two on-chip phase lock loops (PLLs)
- image quality controls for:
  - defect pixel correction
  - automatic black level calibration
  - lens shading correction
- built-in temperature sensor

# OV12895



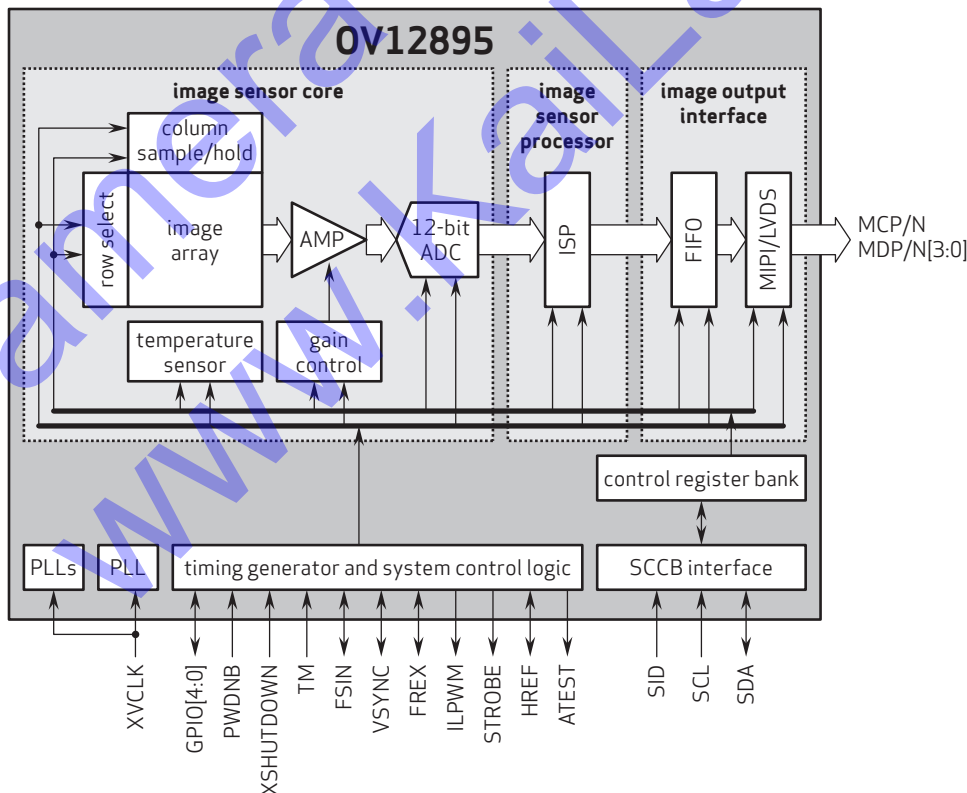
## Ordering Information

- OV12895-GA5A-Z**  
(color, chip probing, 150  $\mu\text{m}$  backgrinding, reconstructed wafer with good die)
- OV12895-C61A-Z**  
(color, lead-free, 161-pin CLGA)

## Product Specifications

- active array size:** 4096 x 3072
- lens chief ray angle:** 5° linear
- power supply:**
  - core: 1.2V
  - analog: 2.8V
  - I/O: 1.8V
- input clock frequency:** 6 - 27 MHz
- power requirements:**
  - active: 300 mW @ full-res, 30 fps, 12-bit
  - XSHUTDOWN: <10  $\mu\text{W}$
- maximum image transfer rate:**
  - 12MP (12-bit) (4:3): 30 fps
  - 12MP (10-bit) (4:3): 45 fps
  - 4K2K (16:9): 60 fps
  - 1080p HD (crop+bin): 240 fps
- scan mode:** progressive
- temperature range:**
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction temperature
- pixel size:** 1.55  $\mu\text{m}$  x 1.55  $\mu\text{m}$
- image area:** 6398.4  $\mu\text{m}$  x 4811.2  $\mu\text{m}$
- output formats:** 10/12-bit RGB RAW, DPCM 10-8 compression
- dimensions:**
  - COB: 7200  $\mu\text{m}$  x 5750  $\mu\text{m}$
  - RW: 7250  $\mu\text{m}$  x 5800  $\mu\text{m}$
  - CLGA: 12.8 mm x 11.8 mm
- lens size:** 1/2.3"

## Functional Block Diagram



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