## CMOS CAMERA MODULES

your BEST camera module partner

### JAL-KM9-OVM6211 V1.0

#### OmniVision OVM6211 MIPI Interface Foco Fixo 400x400 Metade VGA Módulo de Câmera

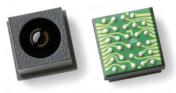


Módulo de câmara No.	JAL-KM9-OVM6211 V1.0
Sensor de imagem	OVM6211
EFL	1.68 mm
F.NO	3.1
Pixel	400 x 400
Ângulo de visão	50°
Tipo de lente	1/10.5 polegada
Dimensões da lente	3.23 x 3.23 x 2.76 mm
Tamanho do Módulo	30.00 x 5.00 mm
Tipo de Módulo	Foco Fixo
Interface	MIPI



www.KaiLapTech.com sales@KaiLapTech.com Tel: (852) 6908 1256 Fax: (852) 3017 6778

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## OVM6211 400x400 product brief

### Global Shutter

available in

a lead-free

nackage

### **Rolling Shutter**

# Compact Global Shutter CameraCubeChip<sup>™</sup> Brings Computer Vision to Mobile Devices, Notebooks and Wearables

OmniVision's high performance OVM6211 offers a number of advanced features, including gesture recognition, eye tracking and motion detection in the industry's smallest global shutter package. Its advanced functionality, easy adoption and compact form-factor make it an ideal camera solution for advanced spaceconstrained devices, such as smartphones, tablets, notebooks and wearables.

Featuring a 3-micron OmniPixel3-GS<sup>™</sup> global shutter pixel, the OVM6211 is capable of capturing full resolution (400 x 400 pixels) video at 120 fps and features two low-power modes: light sensing mode and ultra-low power mode. The OVM6211 CameraCubeChip<sup>™</sup> will be available in two packages. The OVM6211-RADA is intended for human interface systems including eye tracking and will have a narrow field of view (FOV) at approximately 50 degrees. The OVM6211-RAHA is a complementary product intended for applications including gesture recognition and wearable devices and uses a lens with FOV wider than 90 degrees.

Find out more at www.ovt.com.





#### Applications

- Cellular Phones
- Digital Video Camcorders (DVC)
- PC Multimedia
- Tablets
  - Security/Surveillance
- Gaming

#### **Product Features**

- 3 µm global shutter pixel
- automatic black level calibration (ABLC) one-lane MIPI serial output interface
- programmable controls for: - frame rate - mirror and flip cropping and windowing
- supports output formats: 8/10-bit RAW
- supports images sizes: 400 x 400 - 200 x 200 - 100 x 100
- fast mode switching
- supports horizontal and vertical 2:1 and 4:1 monochrome subsampling
- supports 2x2 monochrome binning
- standard serial SCCB interface

- programmable SCCB device ID
- - embedded 128 bits of one-time programmable (OTP) memory for part identification, etc.
  - two on-chip phase lock loop (PLL)
  - programmable I/O drive capability
  - built-in 1.5V regulator for core
  - PWM
  - built-in strobe control
  - ultra low power mode for ambient light sensor



- OVM6211-RADA (B&W, lead-free, CameraCubeChip™ with black coating, 50° FOV)
- OVM6211-RAHA (B&W, lead-free, CameraCubeChip" with black coating, 90° FOV)

#### **Product Specifications**

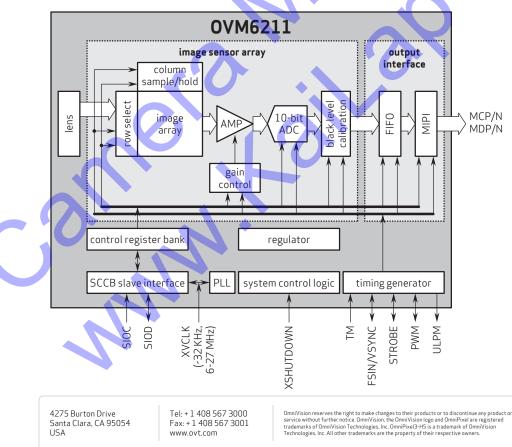
- active array size: 400 × 400
- power supply:
  analog: 2.6 3.0V
  core: 1.5 VDC ±5%
  I/0: 1.7 3.0V
- power requirements: active: 85 mW @ 120 fps standby: 15 µA for AVDD, 40/700 µA for DOVDD with/without input clock XSHUTDOWN: 5 µA for AVDD, 5 µA for DOVDD
- temperature range:
  operating: -30°C to +70°C junction
- temperature stable image: 0°C to +50°C junction temperature

input clock frequency: 6 - 27 MHz

- output formats: 8/10-bit RAW
- optical format: 1/10.5"

- OVM6211-RADA: 3.1 OVM6211-RAHA: 2.4
- focal length: OVM6211-RADA: 1.681 mm - 0VM6211-RAHA: 0.776 mm
- scan mode: progressive
- maximum image transfer rate: 400x400: 120 fps 200x200: 220 fps -100x100: 380 fps
- max S/N ratio: 37.5 dB
- dynamic range: 66.5 dB @ 8x gain
- maximum exposure interval: 434 x t<sub>ROW</sub>
- pixel size: 3 µm x 3 µm
- image area: 1248 µm x 1248 µm

#### Functional Block Diagram





#### Version 1.4, October, 2016