CMOS CAMERA MODULES

your BEST camera module partner

JAL-KM9-OVM6211 V1.0

OmniVision OVM6211 MIPI串行接口 固定焦距 400x400 半 VGA 摄像头模组

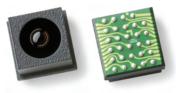


摄像头模组型号	JAL-KM9-OVM6211 V1.0
图像感光芯片	OVM6211
焦距	1.68 mm
光圈	3.1
像素	400 x 400
可视角度	50°
镜头类型	1/10.5 英寸
镜头尺寸	3.23 x 3.23 x 2.76 mm
模组尺寸	30.00 x 5.00 mm
模组类型	固定焦距
接口	MIPI串行



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OVM6211 400x400 product brief

Global Shutter

available in

a lead-free

nackage

Rolling Shutter

Compact Global Shutter CameraCubeChip[™] 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[™] 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[™] 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

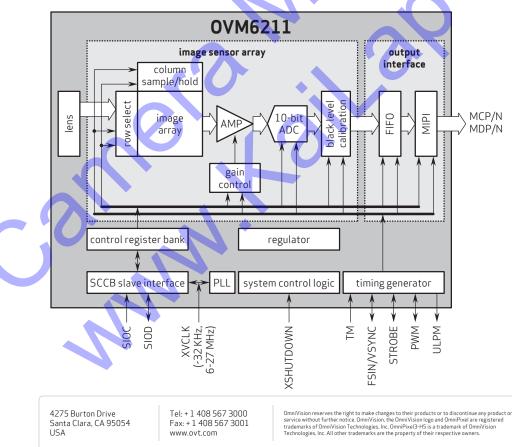
- active array size: 400 × 400
- power supply:
 analog: 2.6 3.0V
 core: 1.5 VDC ±5%
 I/0: 1.7 3.0V
- power requirements: active: 85 mW @ 120 fps standby: 15 µA for AVDD, 40/700 µA for DOVDD with/without input clock XSHUTDOWN: 5 µA for AVDD, 5 µA for DOVDD
- temperature range:
 operating: -30°C to +70°C 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_{ROW}
- pixel size: 3 µm x 3 µm
- image area: 1248 µm x 1248 µm

Functional Block Diagram





Version 1.4, October, 2016