KLT-B3MF-OV2680 V2.1

OmniVision OV2680 MIPI串行接口 固定焦距 200万像素 摄像头模组
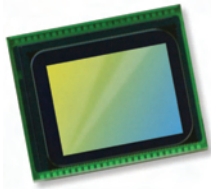

摄像头模组型号	KLT-B3MF-OV2680 V2.1
图像感光芯片	OV2680
焦距	2.32 mm
光圈	2.2
像素	1600 x 1200
可视角度	75.1°
镜头类型	1/5 英寸
镜头尺寸	6.50 x 6.50 x 4.03 mm
模组尺寸	20.00 x 6.50 mm
模组类型	固定焦距
接口	MIPI串行

配对连接器型号： 24-5804-024-000-829
主板上的对应连接器。分开售卖。

OV2680/OV2685 2MP product brief

Cost-Effective, Low-Power 2-Megapixel Sensors for Feature Phones, Smartphones and Tablets

lead free

available in a lead-free package

The OV2680 (RAW) and OV2685 (SoC) are cost-effective, low-power 2-megapixel CameraChip™ sensors for feature phones and front-facing camera applications in smartphones and tablets. The 1/5-inch sensors leverage a 1.75-micron OmniPixel3-HS™ pixel to deliver high quality 2-megapixel images and video at 30 frames per second (fps). The sensors' high sensitivity and low dark current deliver exceptional image and video quality, even in low-light conditions.

The OV2680 and OV2685 are cost-effective upgrade solutions to the OV2659 & OV2675 CameraChip sensors with a smaller footprint and smaller die size.

Compared to previous generations, the OV2680 and OV2685 offer improved image quality with the latest OmniPixel3-HS pixel architecture. Using OmniVision's proprietary sensor technology, both sensors reduce or eliminate common lighting and electrical sources of image contamination, such as fixed pattern noise, smearing, etc., to produce a clean, stable, color image.

The OV2680 and OV2685 both feature a single-lane MIPI interface, which allows for a simple design with modern basebands.

Find out more at www.ovt.com.

OmniVision

OV2680/OV2685

Applications

- Ultrabooks
- PC Multimedia
- Games
- Home Entertainment
- Cellular and Picture Phones
- Tablets
- Toys

Product Features

- MIPI and D-PHY specification (contains one clock lane) with a maximum of 750 Mbps data transfer rate
- support for output formats:
  - OV2680: 10-bit RAW RGB
  - OV2685: 10-bit RAW RGB, 8-bit YUV
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- low operating voltage and low power consumption for embedded portable applications
- supports global analog gain
- high sensitivity and low dark current for low-light conditions
- supports free-running clock and gated clock
- supports down-sampling and binning mode
- auto black level calibration
- defect correction capability
- supports horizontal and vertical subsampling
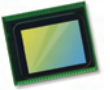
Product Specifications
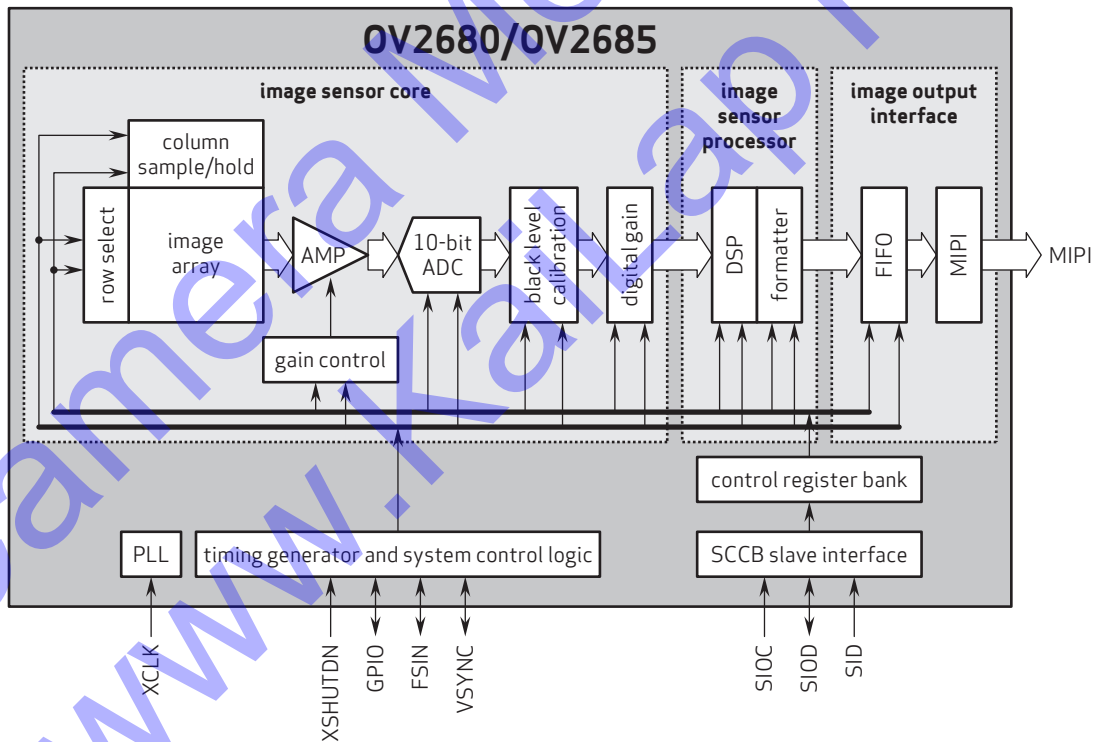
- active array size: 1616 x 1216
- power supply:
  - OV2680 core: 1.58V ±3%
  - OV2685 core: 1.7 - 1.9V
  - analog: 2.6 - 3.0V
  - I/O: 1.7 - 3.0V
- power requirements:
  - OV2680 active: 123 mW
  - OV2685 active: 259 mW
  - XSHUTDN: <1 µA
- temperature range:
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +50°C junction temperature
- output formats: 10-bit RGB RAW, 8-bit YUV (OV2685)
- lens size: 1/5"
- lens chief ray angle: 28.5° non-linear
- input clock frequency: 6 - 27 MHz
- maximum image transfer rate: 30 fps
- scan mode: progressive
- maximum exposure interval: 1 frame - 4 t_{ROW}
- pixel size: 1.75 µm x 1.75 µm
- image area: 2840 µm x 2150 µm
- package/die dimensions:
  - OV2680 CSP5: 4180 µm x 3480 µm
  - OV2685 CSP5: 4454 µm x 4014 µm

Functional Block Diagram