CMOS CAMERA MODULES

your BEST camera module partner

KLT-L9MF-OV2740 V1.0

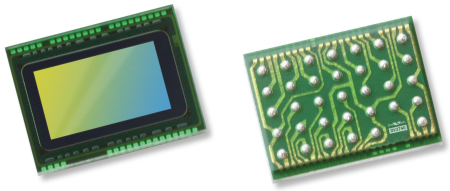
OmniVision OV2740 MIPI Interface Fixed Focus 2MP Camera Module

Camera Module No.	KLT-L9MF-OV2740 V1.0
Image Sensor	OV2740
EFL	2.39 mm
F.NO	2.8
Pixel	1920 x 1080
View Angle	62°
Lens Type	1/6 inch
Lens Dimensions	8.00 x 8.00 x 3.62 mm
Module Size	25.00 x 8.00 mm
Module Type	Fixed Focus
Interface	MIPI

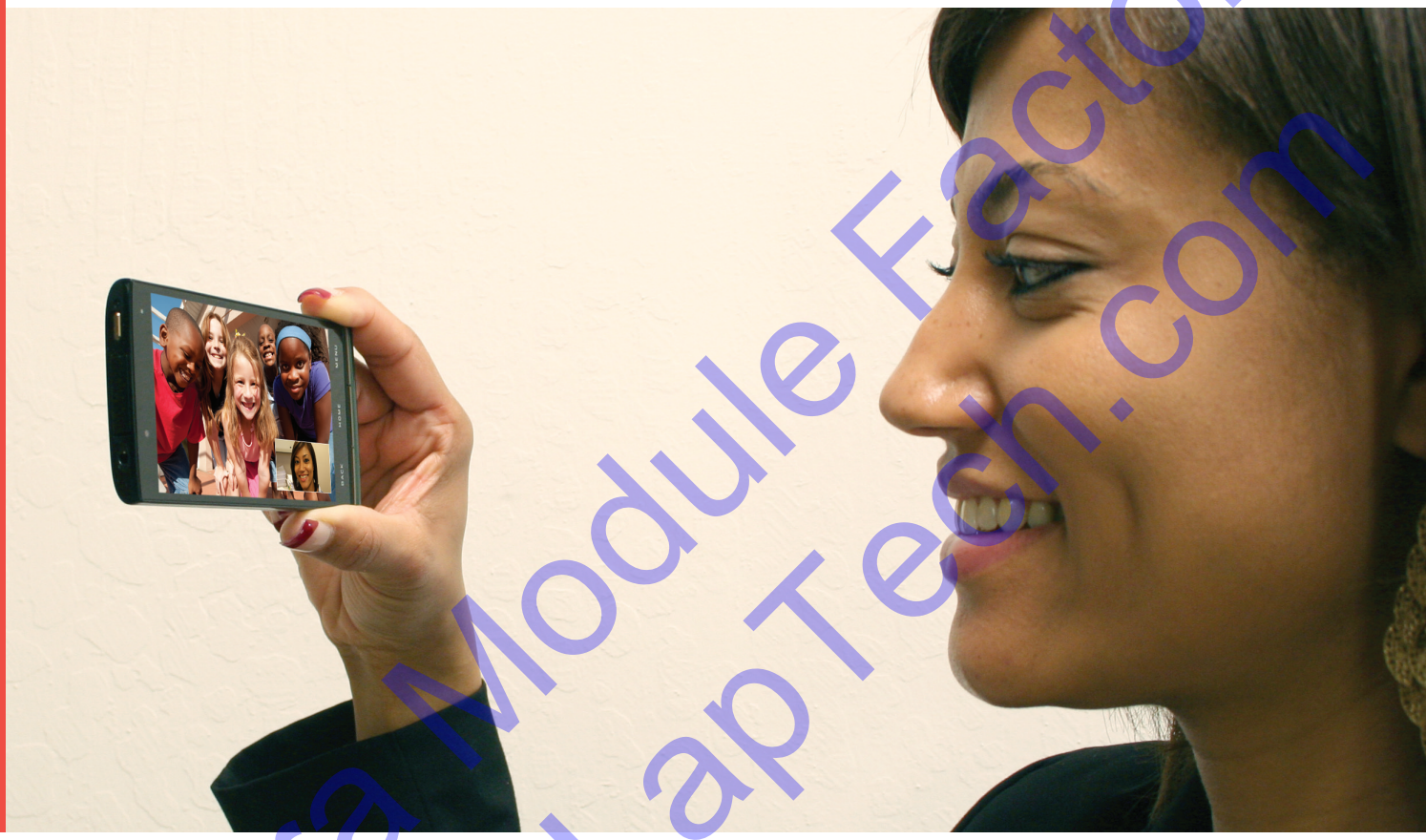
Mating Connector Part No. DF30FC-24DS-0.4V

Mating Connector On Main Board. Sold Separately.

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



OV2740 1080p product brief



World's Most Power-Efficient 1080p/60 High Definition Image Sensor for Front-Facing Camera Applications

lead free

available in a lead-free package

OmniVision's OV2740 PureCel™ is an ultra-low power, full high-definition (FHD) image sensor for front-facing camera applications in smartphones, tablets, notebooks and Ultrabooks. By consuming under 90 mW when recording 1080p HD video at 60 frames per second (fps), the OV2740 is the lowest power 1080p/60 image sensor currently on the market.

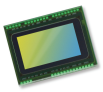
Built on a 1.4-micron pixel, the OV2740 PureCel image sensor boasts a signal-to-noise ratio of less than 50 lux, with improvements in full-well capacity (FWC) and sensitivity. The sensor records best-in-class 1080p HD video at 60 fps and 720p HD video at 90 fps, and uses staggered high dynamic range (HDR) to minimize motion artifacts to capture crisp, clear video in difficult lighting conditions.

The OV2740 is the only 1080p HD image sensor to feature light-sensing mode (LSM) and ultra-low power mode (ULPM), enabling advanced features such as motion detection or gesture control. Additionally, the sensor is stereo ready with frame synchronization to support a host of depth perception applications. The OV2740 fits into a compact 5.5 x 5.5 x 3 mm module.

Find out more at www.ovt.com.

OmniVision

OV2740



Applications

- Smartphones
- Ultrabooks and Notebooks
- Tablets
- Digital Still Cameras (DSC)
- Digital Video Camcorders (DVC)
- PC Multimedia

Ordering Information

- **OV02740-H34A-Z**
  (color, lead-free, 34-pin CSP5)

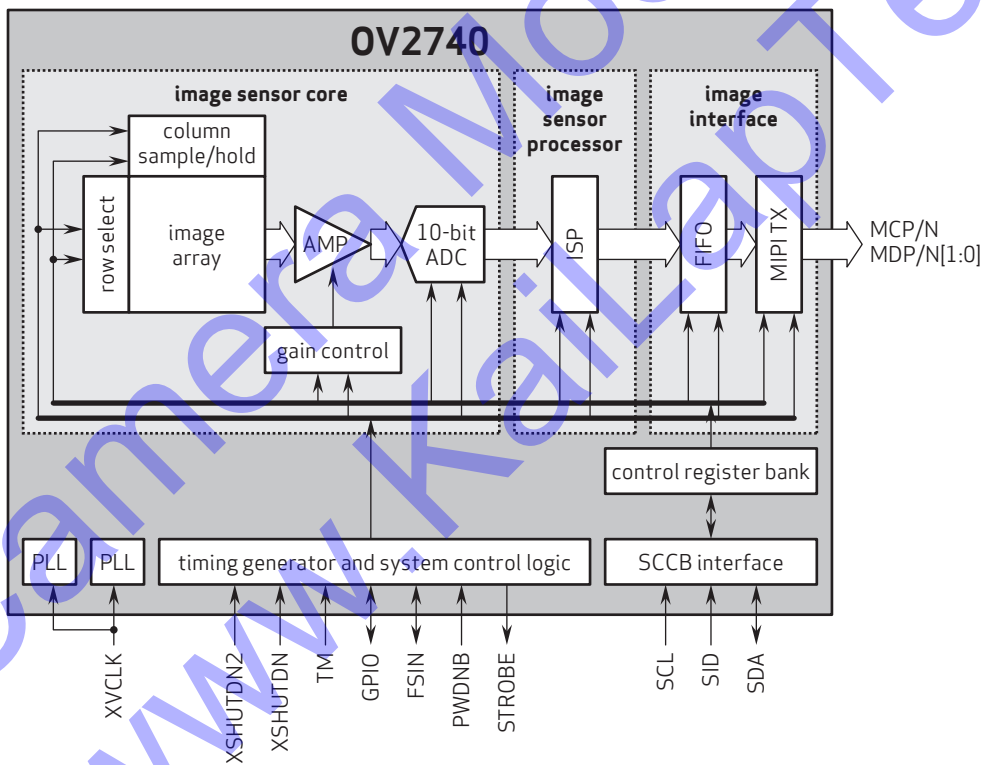
Product Features

- 1.4 µm x 1.4 µm pixel
- optical size of 1/6"
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- supports output formats:
  10-bit RAW RGB
- supports images sizes:
  - 1080p (1920x1080)
  - 720p (1280x720)
  - VGA (640x480)
  - QVGA (320x240)
  - QQVGA (160x120)
- supports 2x2 binning
- standard serial SCCB interface
- up to 2-lane MIPI serial output interface (supports maximum speed up to 1000 Mbps/lane)
- embedded 4 kilobits of one-time programmable (OTP) memory for customer use
- add staggered HDR raw data output
- interleave row high dynamic range (iHDR) output
- programmable I/O drive capability
- power saving (PSV) mode
- support for LENC color shading correction

Product Specifications

- **active array size:** 1920 x 1080
- **power supply:**
  - **core:** 1.2V
  - **analog:** 2.8V
  - **I/O:** 1.8V
- **power requirements:**
  - **active:** 86.7 mW
  - **standby:** 250 µA
  - **XSHUTDN:** 0.15 µA
- **temperature range:**
  - **operating:** -30°C to +85°C junction temperature
  - **stable image:** 0°C to +60°C junction temperature
- **output formats:** 10-bit RAW RGB data
- **lens size:** 1/6"
- **lens chief ray angle:** 33° non-linear
- **input clock frequency:** 6 - 27 MHz
- **maximum image transfer rate:**
  - **1080p:** 60 fps
  - **720p:** 90 fps
- **scan mode:** progressive
- **pixel size:** 1.4 µm x 1.4 µm
- **image area:** 2728.8 µm x 1549.8 µm
- **package dimensions:**
  - **CSP5:** 3855 µm x 2919 µm

Functional Block Diagram



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