KLT-USB1A-OVM6946 V1.0

OmniVision OVM6946 USB 接口 固定焦距 400x400 半 VGA 摄像头模组

摄像头模组型号	**KLT-USB1A-OVM6946 V1.0**	
图像感光芯片	OVM6946	输出格式：MJPG, YVY2
焦距	0.418 mm	Frame Per Second
像素	400 x 400	30 FPS at 400 x 400
可视角度	120°	支持的操作系统
镜头类型	1/18 英寸	Windows 7, 8.1, 10, Vista
镜头尺寸	2.00 mm 直径	Windows XP SP2 under UVC
模组尺寸	3.60 mm 直径 x 19.10 mm	Linux Kernel V2.6.2.1 or later
模组类型	固定焦距	MAC OS 10.4 or later
接口	USB 2.0	工作电压：5V +/- 5%
IMT镜头型号		符合UVC 1.0版

配对USB线型号： KLT-USB1A-Cable
USB延长线。分开售卖。.
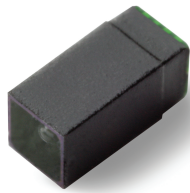
OVM6946 *400x400* product brief

Compact, Cost-Effective Wafer-Level Camera Module for Single-Use Endoscopes

lead free

available in a lead-free package

OmniVision's OVM6946 is a compact camera module for medical applications such as minimally-invasive endoscopes. The 1/18-inch OVM6946 utilizes OmniVision's market-proven CameraCubeChip™ wafer-level module technology to streamline manufacturing processes and shorten time-to-market, and is the industry's most cost-effective single-chip imaging solution for single-use endoscopes.

Built on OmniVision's OmniBSI+™ pixel architecture, the OVM6946 captures high quality 400 x 400 resolution video at 30 frames per second (fps). The OVM6946

comes in a compact 1.05 mm x 1.05 mm package with a z-height of 2.27 mm, enabling a wide 120-degree field of view with an extended focusing range of 3 mm to infinity. The OVM6946 is well-suited to a wide range of endoscope applications, including medical, veterinarian, and industrial.
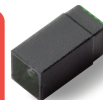
Find out more at www.ovt.com.

Applications

- Medical, Dental, Veterinarian, Industrial Endoscopes

OVM6946

Product Features

- optical size of 1/18"
- analog output
- automatic/manual control of exposure and gain
- on-chip PLL
- low power consumption
- single 3.3V power supply
- serial peripheral interface (SPI)
- OmniBSI™ pixel structure using 0.11 µm process

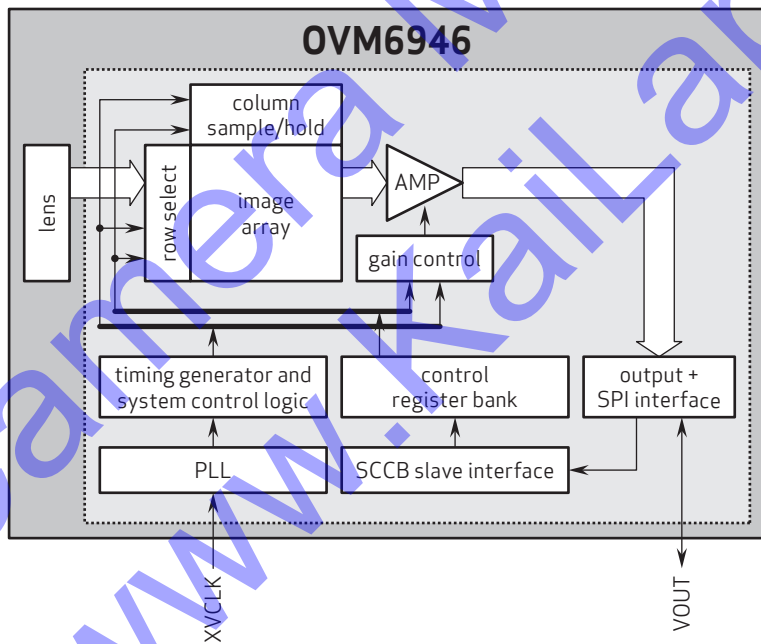# Product Specifications

- **active array size:** 400 x 400
- **power supply:**
  - **analog:** 3.3V ± 5%
- **power requirements:**
  25 mW (with IO consumption)
- **temperature range:**
  - **operating:** -20°C to +70°C junction temperature
  - **stable image:** 0°C to +50°C junction temperature
- **output formats:** analog signal output
- **lens size:** 1/18"
- **diagonal field of view (FOV):** 120°
- **f no.:** 5.0
- **focal length:** 0.418 mm
- **frame rate:**
  - **half VGA (400x400):** 30 fps
- **maximum exposure:** 876 x T_{LINE}
- **minimum exposure time:** 72.15 µs
- **scan mode:** progressive
- **max S/N ratio:** 34.4 dB
- **dynamic range:** 65.8 dB @ 4x gain
- **sensitivity:** 1000 mV/lux-sec
- **color mosaic:** RGB Bayer pattern
- **pixel size:** 1.75 µm x 1.75 µm
- **dark current:** 42 e-/sec @ 60°C junction temperature
- **image area:** 714 µm x 707 µm
- **net weight:** 4.62 mg
- **package dimensions (including ball height):** 1050 x 1050 x 2266 µm

Functional Block Diagram

OmniVision®