KLT-USB1A-OVM6946 V1.0

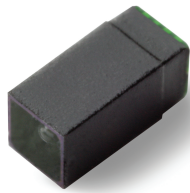### OmniVision OVM6946 USB Interfaccia Messa a fuoco fissa 400x400 Metà VGA Modulo telecamera

Modulo telecamera n.	KLT-USB1A-OVM6946 V1.0	
Sensore d'immagine	OVM6946	Output Format: MJPG, YVY2
EFL	0.418 mm	Frame Per Second
Pixel	400 x 400	30 FPS at 400 x 400
Vista ad angolo	120°	Supporting OS
Tipo di lente	1/18 pollice	Windows 7, 8.1, 10, Vista
Dimensioni dell'obiettivo	2.00 mm Diameter	Windows XP SP2 under UVC
Dimensione del modulo	3.60 mm Diameter x 19.10 mm	Linux Kernel V2.6.2.1 or later
Tipo di modulo	Messa a fuoco fissa	MAC OS 10.4 or later
Interfaccia	USB 2.0	Operating Voltage: 5V +/- 5%
Modello obiettivo IMT		Compliant with UVC Version 1.0

Cavo USB di accoppiamento Codice. KLT-USB1A-Cable

Cavo di prolunga USB. Venduto separatamente.

OVM6946 400x400 product brief

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

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.
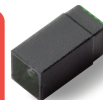
Find out more at www.ovt.com.

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

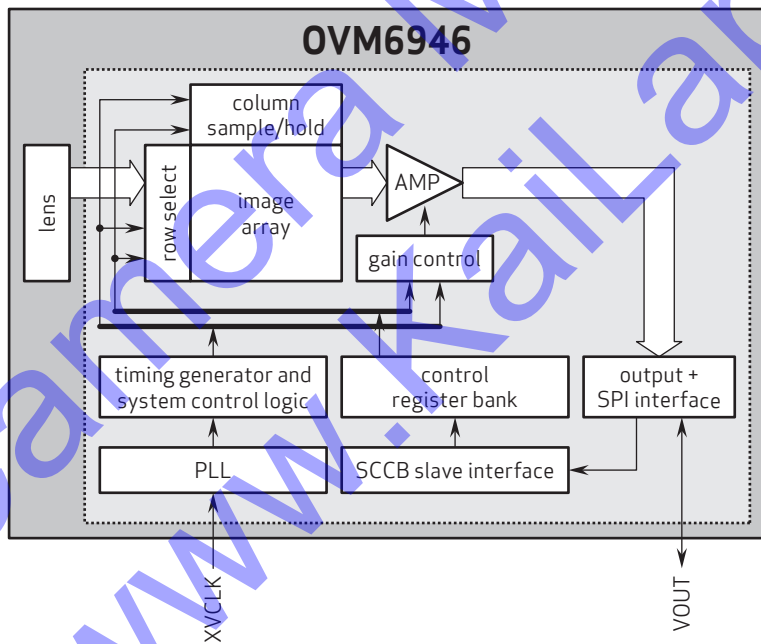# Product Specifications

- **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