



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



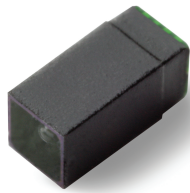
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OVM6946 400x400 product brief



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.



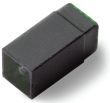
Applications

- Medical, Dental, Veterinarian, Industrial Endoscopes

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

OVM6946



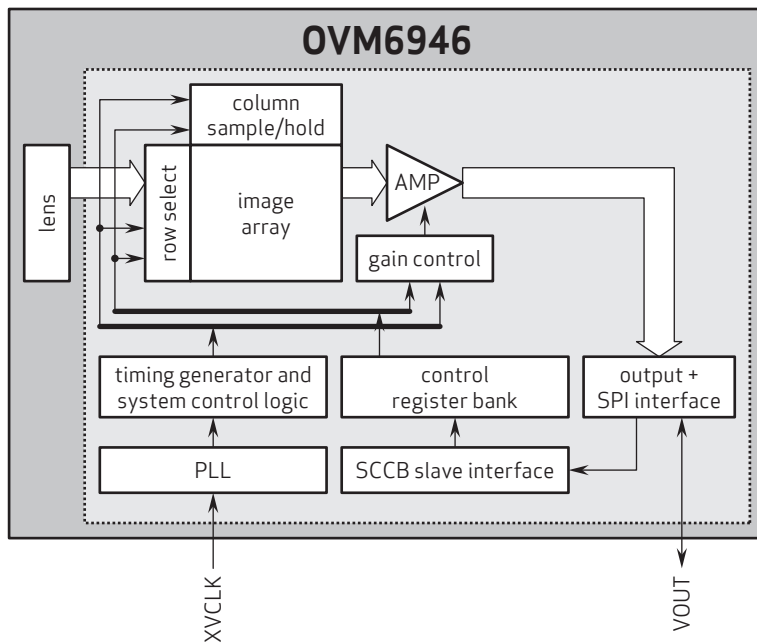
Ordering Information

- OVM6946-RAJA
(color, lead-free) CameraCubeChip™ with black coating

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



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