

# OV6922 NTSC product brief



available in  
a lead-free  
package

## Ultra Small 1/18-inch CMOS Camera-on-a-Chip

The OV6922 is a 1/18-inch optical format CMOS image sensor incorporating a high level of functionality and very low power consumption in an ultra-small footprint package. This makes it ideal for use in small disposable cameras for medical imaging applications such as diagnostic and intubation systems.

The 2.1 mm x 2.3 mm CSP packaged sensor enables a microscopic camera module with a 4.0 mm diameter, to make medical procedures even less invasive for the patient.

Having been designed for very low power operation, the OV6922 only requires a clock and a single 3.3-volt DC power supply to get the NTSC composite signal out to a direct interface with a VCR and TV monitor.

The OV6922 is built on OmniVision's proprietary OmniPixel® architecture providing the highest image quality, performance and clarity. It is an ideal solution for medical applications that require both color video and a very small footprint package.

Find out more at [www.ovt.com](http://www.ovt.com).



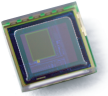
## Applications

- Medical Devices
- Entertainment - Multimedia, Games and Toys
- Security and Surveillance

## Product Features

- single chip 1/18" NTSC lens video camera
- composite video output
- automatic exposure/gain/white balance
- aperture correction
- gamma correction
- low power consumption
- +3.3V only power supply
- wide dynamic range, anti-blooming, zero smearing
- SCCB programmable controls:
  - color saturation
  - exposure
  - gain
  - gamma curve

# OV6922



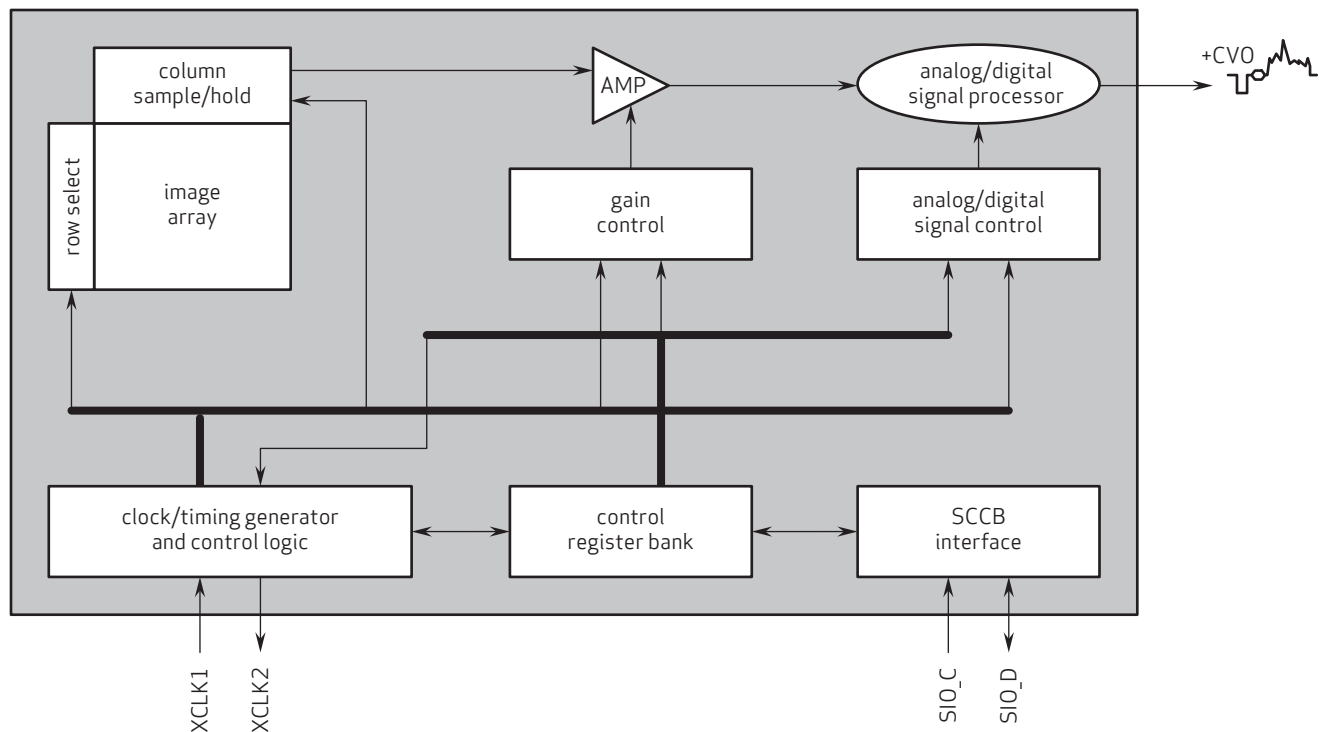
## Ordering Information

- OV06922-V09N  
(color, NTSC, lead-free, 9-pin CSP2)

## Product Specifications

- active array size: 328 x 250
- power supply: 3.3 VDC  $\pm 5\%$
- power requirements (active):
  - without loading: 20 mA
  - with 75 ohm loading: 30 mA
- temperature range:
  - operating:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
  - stable image:  $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- lens size: 1/18"
- electronic exposure: 1/60 s to 5.7  $\mu\text{s}$
- output formats: composite video
- color mosaic: RGB Bayer pattern
- sensitivity: 1000 mV/lux-sec
- max S/N ratio: 42 dB
- dynamic range: 66 dB @ 8x gain
- dark current: 3 mV/sec @  $60^{\circ}\text{C}$  junction temperature
- pixel size:  $2.5 \mu\text{m} \times 2.5 \mu\text{m}$
- image area:  $820 \mu\text{m} \times 625 \mu\text{m}$
- package dimensions:  $2135 \mu\text{m} \times 2265 \mu\text{m}$

## Functional Block Diagram



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