

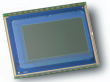
Applications

- Security and Surveillance

Product Features

- high sensitivity for low-light operation
- ultra low power and low cost
- automatic image control functions:
 - automatic exposure control (AEC)
 - automatic gain control (AGC)
 - automatic white balance (AWB)
 - automatic band filter (ABF)
 - automatic black level calibration (ABLC)
- programmable controls: frame rate, AEC/AGC 16-zone size/position/weight control, mirror, flip and windowing
- image quality controls: lens correction and defective pixel canceling
- output support for raw RGB
- on-chip phase lock loop (PLL)
- support for horizontal and vertical sub-sampling
- supports image sizes:
 - WXGA (1280x800) at 30 fps
 - 640x400 (sub-sampled WXGA) at 60 fps
 - HD 720p (1280x720) at 30 fps
- support for black sun cancellation
- standard serial camera control bus (SCCB) interface
- digital video port (DVP) parallel output interface
- embedded one-time programmable (OTP) memory
- built-in 1.5 V regulator for core

OV9715



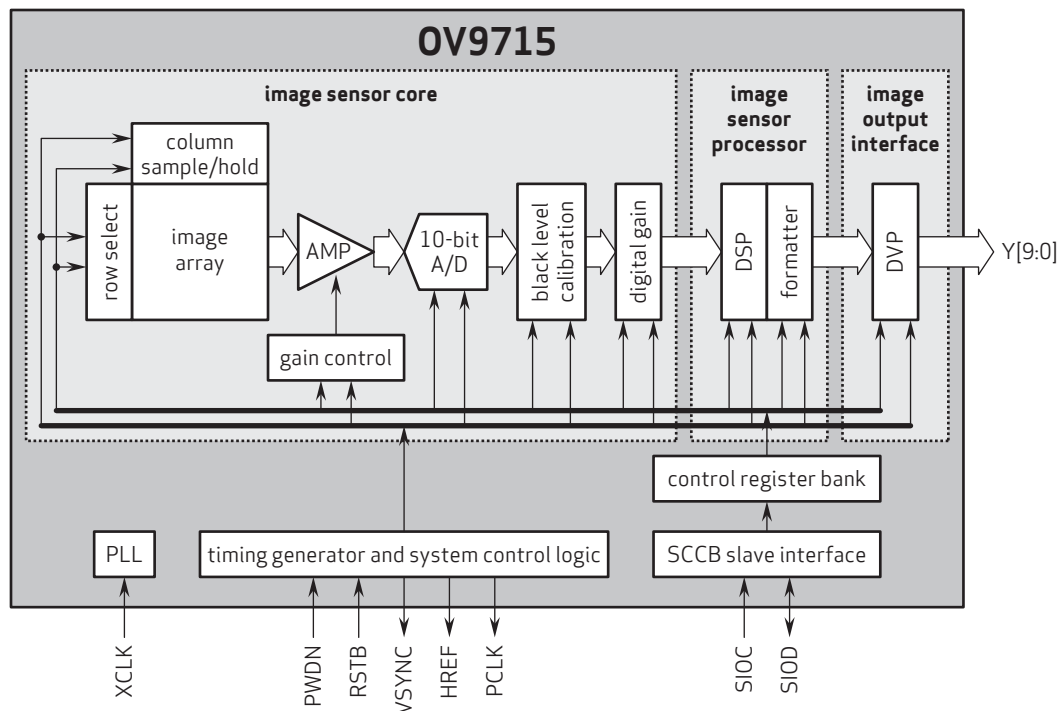
Ordering Information

- OV09715-V28A
(color, lead-free, 28-pin CSP2)

Product Specifications

- active array size: 1280 x 800
- power supply:
 - core: 1.5 VDC $\pm 5\%$ (built-in regulator)
 - analog: 3.0 - 3.6V
 - I/O: 1.7 - 3.6V
- power requirements:
 - active: 110 mW
 - standby: 50 μ A
- temperature range:
 - operating: -30°C to 85°C junction temperature
 - stable image: 10°C to 60°C junction temperature
- output formats: 10-bit raw RGB data
- lens size: 1/4"
- lens chief ray angle: 0°
- input clock frequency: 6 - 27 MHz
- scan mode: progressive
- maximum image transfer rate:
 - WXGA (1280x800): 30 fps
 - 640x400: 60 fps
- sensitivity: 3300 mV/lux-sec
- max S/N ratio: 39 dB
- dynamic range: 69 dB @ 8x gain
- maximum exposure interval: 826 x t_{row}
- pixel size: 3 μ m x 3 μ m
- dark current: 20 mV/s @ 60°C junction temperature
- image area: 3888 μ m x 2430 μ m
- package dimensions: 5415 μ m x 4415 μ m

Functional Block Diagram



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