



OVM7692  
Color CMOS VGA (640 x 480) CameraCubeChip with OmniPixel3-HS Technology

The OVM7692 CameraCubeChip™ consists of a low voltage CMOS image sensor that provides the full functionality of a single-chip VGA camera and image processor in a small footprint package. The OVM7692 provides full-frame, sub-sampled or windowed 8-bit images in a wide range of formats, controlled through the Serial Camera Control Bus (SCCB) interface.

This product has an image array capable of operating at up to 30 frames per second (fps) in VGA with complete user control over image quality, formatting and output data transfer. Enabling 640 x 480 pixels to be output allows the user to perform image stabilization functions with post processing. All required image processing functions, including exposure control, gamma, white balance, color saturation, hue control and more, are also programmable through the SCCB interface. In addition, OmniVision sensors use proprietary sensor technology to improve image quality by reducing or eliminating common lighting/electrical sources of image contamination, such as fixed pattern noise (FPN), smearing, blooming, etc., to produce a clean, fully stable color image.

Features

- OmniPixel3-HS structure using 0.11 µm process
- Optical size of 1/13"
- Automatic/manual control of automatic exposure control (AEC), automatic gain control (AGC), automatic 50/60 Hz luminance detection and automatic black level calibration (ABLC)
- Support for horizontal and vertical sub-sampling
- Mirror, flip, scaling, windowing
- MIPI serial output interface
- Support for black sun cancellation
- Digital video port (DVP) parallel output interface
- Image quality controls: color saturation, hue, gamma, sharpness (edge enhancement), lens correction, defective pixel canceling, and noise canceling
- Serial camera control bus (SCCB) interface
- Programmable I/O drive capability
- On-chip phase lock loop (PLL)
- 2.8V power supply
- Built-in 1.5V regulator for sensor core power
- Low power consumption

Product Specifications

Part Number	OVM7692-R25A
Package Size	2835 x 3199 x 2472 µm
Analog/ Digital	Digital
Chroma	Color
Array Size	1148 x 861 µm
Resolution	VGA
Package	25-pin CSP
Optical Format	1/13"
Pixel Size	1.75 µm
Frame Rate	60 @ QVGA 30 @ CIF 30 @ Full
Power Consumption	Active: 120 mW Standby: 23 µA
Temperature	Operating: -30° - 70°C Stable: 0° - 50°C
Output Format	RAW RGB, RGB, YUV
Product Brief	Product Brief

Image Sensors

- Native HD
- High Resolution HD
- 16-megapixel
- 14-megapixel
- 12-megapixel
- 10-megapixel
- 9-megapixel
- 8-megapixel
- 5-megapixel
- 3-megapixel
- 2-megapixel
- 1-megapixel
- VGA
- Analog

CameraCubeChip

- VGA

Available ASICs

- 500/600 Series

Related Information

- CameraCubeChip™
- OVM7692 Product Brief (pdf)

More Info

- Part # Conversion Tool (zip)
- SCCB Specifications (pdf)
- All Product Briefs

Contact Info

- sales@ovt.com

Green Packaging!

OmniVision is committed to reducing carbon footprint by incorporating green technologies into every aspect of design and manufacturing; in compliance with the European Union (EU) directive that bans lead (Pb) and other specified materials in electrical and electronic equipment, all OmniVision products are available in 100 percent lead-free packaging.



Unrivaled Customer Support

No solution is complete without customer support. OmniVision customers are assured of rapid local support from dedicated resources located around the globe.

