

OVP7200/OVP921 LCOS product brief



720p HD LCOS Chip Set Solution for Compact Projection Systems



available in a lead-free package

The OVP7200/OVP921 liquid crystal on silicon (LCOS) chip set brings high definition (HD) image resolution to very small projection systems. The OVP7200 panel has a resolution of 1280 x 720 pixels and a diagonal measurement of 0.37-inch, making it ideal for low cost HD projection systems. The companion driver ASIC, the OVP921, integrates a host of features that simplify system design, while saving both space and power.

The OVP7200 is a single panel, color field sequential device, based on a 6.4-micron pixel in an array with a native resolution of 1280 x 720 pixels. The OVP7200 uses all-digital technology to drive the liquid crystal, resulting in stable, reproducible image quality.

The OVP921 provides enhanced system performance without the need for an external image processor. The OVP921 has built-in keystone correction, frame rate conversion, video input scaling, LED controller, and an embedded 8051 microcontroller (MCU). Additionally, the OVP921 can accept inputs via 24-bit RGB, MIPI or USB.

The OVP7200 is large enough to couple well with LED light sources, yet is small enough to meet the demands of compact projection systems for mobile and automotive applications. The HD resolution of OVP7200/OVP921 combined with solid state light sources allows customers to create low-cost, compact projection systems with high optical output.

Find out more at www.ovt.com.

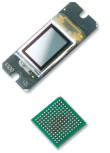


Omnivision

Applications

- Companion projector
- Head up display
- Head mounted display
- Embedded projector

OVP7200/OVP921



Ordering Information

- LCOS Panel: OVP7200-MBAA-TA (lead-free, 41-pin PCB)
- Driver ASIC: OVP0921-B44G (lead-free, 144-pin BGA)

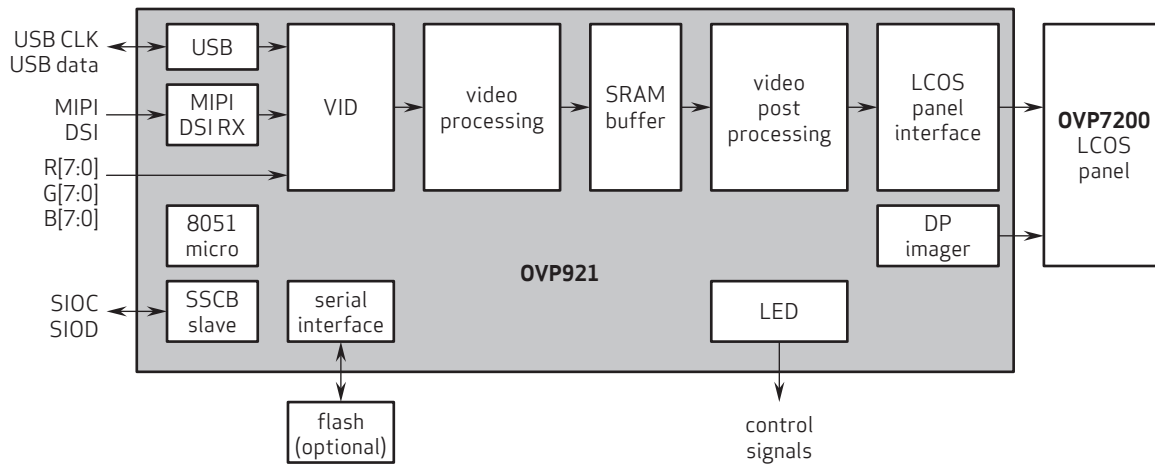
OVP921 Product Specifications

- no external memory required
- support for 3 types of video input
 - USB (slave only)
 - MIPI (2 channel Rx)
 - 24 bit RGB
- support for input resolutions
 - 320 x 240, 640 x 480, 800 x 600
 - 848 x 600, 848 x 480
 - 1280 x 720
- built-in scaler functionality
 - 1 to 5x upscale
 - 1 to 0.5x downscale
- frame rate conversion
 - from 60Hz to 10Hz input
- keystone correction
 - up to +/- 15°
- LED control
 - enable/disable + PWM dimming
- embedded 8051 MCU
- serial camera control bus (SCCB)
 - for register programming
 - support for either all 3.3V I/O or 1.8V I/O
- designed for low power consumption
- package dimensions:
 - 144-pin BGA: 9 x 9 mm

OVP7200 Product Specifications

- active array size: 1280 x 720
- pixel pitch: 6.4 μm
- array diagonal: 0.37"
- integrated optical mask
- aperture ratio: > 92%
- package dimensions: 9 x 23.4 x 3.2 mm
- temperature range:
 - operating: 10°C to 70°C
 - storage: -20°C to 100°C

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

Tel: +1 408 567 3000
Fax: +1 408 567 3001
www.ovt.com

OmniVision reserves the right to make changes to their products or to discontinue any product or service without further notice. OmniVision, the OmniVision logo and OmniPixel are registered trademarks of OmniVision Technologies, Inc. OmniPixel3-H5 is a trademark of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.



OmniVision