

V100 Pico Projection Engine



Features

- 392 x 224 full color hexagonal pixel FLCOS panel
- 7.4cc volume
- Fast-switching FLCOS eliminates motion smearing
- HPX technology effectively doubles perceived horizontal resolution and smoothes diagonal lines
- Vertical interpolation increases overall perceived resolution
- Maximum brightness: 5 color lumens
- All-digital pixel architecture with superior image quality
- Supports consumer product temperature ranges

Applications

- Toys
- Video-class pico projectors
- Handsets, portable media players, cameras
- Consumer applications

A Bright, Simple Engine for Small-Screen Projection

Micron's V100 projection engine is a compact, low-power wide-screen (16:9) video projection engine designed to meet the needs of small-sized video projectors. The V100 is an integrated display solution that incorporates the display panel with its control circuitry, the LED light source, and the complete projection optics in a compact, all-in-one package.

This product takes advantage of the fast switching speeds and superior optical qualities of our patented FLCOS technology, delivering color video images free of motion smearing, and our hexagonal pixels and HPX technology deliver superb visual resolution. The small size and low power of the V100 enable innovative products where portability and battery operating time are critical.

Key Benefits

Simple Integration

We source, design, and test the engine, leaving you free to concentrate on your application design and schedule.

Low-Profile Design

Drawing just 1.5W, the V100 is a great fit for hundreds of battery-powered applications.

Small System Footprint

The display panel includes all of the required video processing and memory, reducing the number of extra components required to integrate the engine.

Integrated, Intelligent Design

We design and integrate the engine and the panel, so we can deliver consistent image quality and overall reliability.

Brilliant Colors

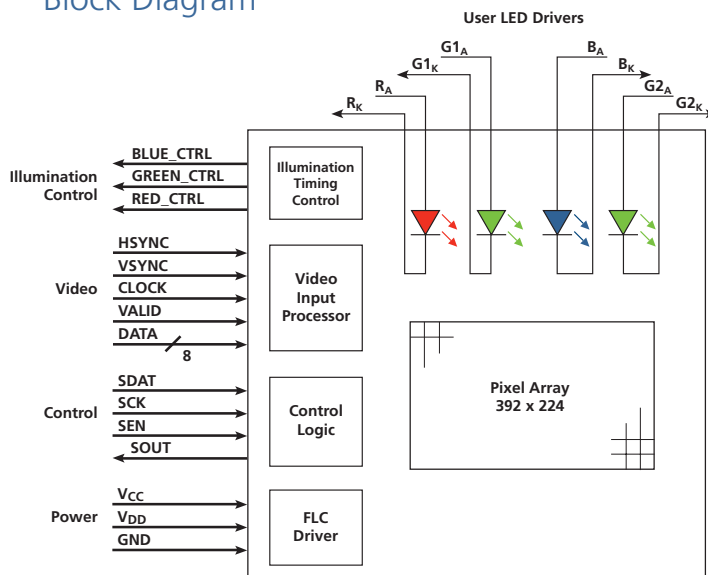
FLCOS technology yields 3X the color gamut of color filter technology.

Product Specifications

General	Format	WQVGA 392 x 224 full-color pixels
	Package Dimensions	42.5mm x 28mm x 12.4mm
	Volume	7.4cc
Output	Light Output	Up to 5 lumens
	Color Depth	4.2 million unique colors (YCrCb video interface)
	Contrast Ratio	50:1
	Color Gamut	>140% sRGB, >100% NTSC
Electrical	Supported Interfaces	CCIR 601 or 656 8-bit RGB-serial data, Hsync, Vsync, Valid, Clock 4-wire serial interface (SPI-like)
	Power Consumption*	~1.5W typical
	Power Supply Voltages	2.5V (±8%) 5.0V (±10%)
	I/O Input Level	2.5V to 3.3V tolerant
Thermal	Operating Temperature	0°C to +50°C
	Storage Temperature	-30°C to +80°C

*Note: Typical values at standard operating conditions and room temperature.

Block Diagram



Why Choose Micron?

The high performance, low power, and tiny size of our proprietary FLCOS display technology—the heart of the pico projector engines—make it the most compelling solution for mobile projection. Our products leverage the strength of an R&D team that merges industry-leading display expertise with decades of silicon manufacturing experience. Intelligently integrated products, backed by worldwide locations and supply chain, enable us to provide the support your display project requires.

Contact Us

To find out more about product specifications and availability, visit micron.com/flcos.