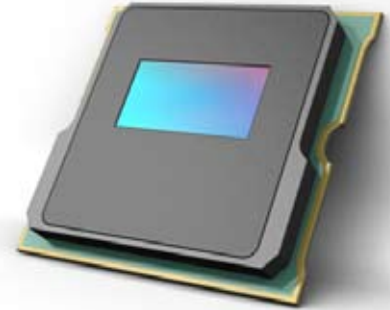


# Displaytech® WQVGA FLCOS Microdisplay Panel



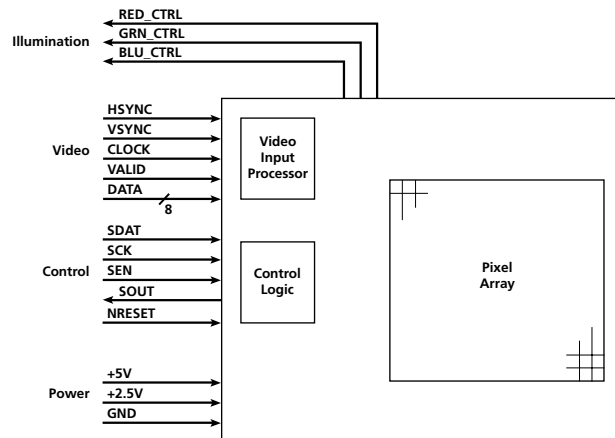
## WQVGA Microdisplay Panel Features

- 392 x 224 full-color pixels
- Fast switching ferroelectric liquid crystal (FLC) material eliminates motion smearing
- Hexagonal pixel shape with 1/2-pixel offset, effectively doubles perceived horizontal resolution and smooths diagonal line appearance
- Vertical interpolation process increases perceived resolution
- Low power: 85mW
- 50/60Hz frame rate (300/360Hz RGB field rate)
- Selectable color space
- All digital pixel architecture with superior image quality
- Supports consumer product temperature ranges

## Wide Screen, Small Footprint

The Displaytech WQVGA panel is a compact, low-power, wide-screen (16:9) video display device designed to meet the needs of low-cost applications such as toy projectors, embedded cell phone projectors, and head-mounted displays. This integrated solution incorporates the display panel and control circuitry in a compact, all-in-one package. This product takes advantage of the fast switching speeds and superior optical qualities of our patented ferroelectric liquid crystal (FLC) materials, delivering color video images free of motion smearing. The small size and low power of the display enable innovative products where portability and battery operating time are critical.

## Block Diagram



## Supported Interfaces

- 8-bit RGB-serial data, Hsync, Vsync, Valid, Clock
- Digital CCIR 601
- Digital CCIR 656
- Industry-standard 4-wire serial interface (SPI-like)

## Applications

- Embedded pico projectors
- Head-mounted displays (HMD)
- Toy projectors
- Ultra-portable, low-cost display applications

## Product Specifications

General	Format	<i>392 x 224 full-color pixels</i>
	Array Diagonal	<i>0.24-inch</i>
	Pixel Pitch	<i>13.5<math>\mu</math>m x 13.5<math>\mu</math>m</i>
	Fill Factor	<i>94%</i>
	Color Depth	<i>18-bit (6-bit RGB)</i>
	Frame Rate	<i>360Hz for 60Hz NTSC video input rate 300Hz for 50Hz PAL video input rate</i>
	Package	<i>15.2mm x 11.3mm x 3.8mm</i>
Optical*	Reflectivity	<i>58%</i>
	Contrast Ratio	<i>100:1</i>
Electrical	Supported Interfaces	<i>Digital CCIR 601 or 656 8-bit, RGB serial data, Hsync, Vsync, Valid, Clock Industry-standard 4-wire serial interface (SPI-like)</i>
	Connector	<i>25-pin female flex connector (0.30mm-pitch)</i>
	Power Consumption*	<i>85mW (Display panel + Integrated controller)</i>
	Power Supply Voltages	<i>2.5V (<math>\pm</math>8%) 5.0V (<math>\pm</math>10%)</i>
	I/O Input Level	<i>2.5V <math>\rightarrow</math> 3.3V tolerant</i>
Thermal	Operating Temperature	<i>-10°C to +70°C</i>
	Storage Temperature	<i>-30°C to +80°C</i>
<i>*Note: Typical values at standard operating conditions and room temperature.</i>		

## Contact Us

To find out more about product specifications and availability, visit [micron.com/flcos](http://micron.com/flcos).

[micron.com/flcos](http://micron.com/flcos)

©2009 Micron Technology, Inc. All rights reserved. Micron, the Micron logo, and Displaytech are trademarks of Micron Technology, Inc. All other trademarks are the property of their respective owners. Products are warranted only to meet Micron's production data sheet specifications. Products and specifications are subject to change without notice. Rev. 7/09 EN.L

