

Product Data Sheet

LightView™ 201k-E Digital Display Module

Model LDM-0201-E

Summary

The Displaytech LightView™ 201k-E is a compact, low power display module designed for color digital still camera and video camcorder electronic viewfinder applications. The LightView™ 201k-E is an integrated display solution, incorporating the display panel, polarization optics, illumination, and control circuitry in a compact opto-mechanical package. This product takes advantage of the fast switching speeds and superior optical qualities of our patented Ferroelectric Liquid Crystal (FLC) materials, delivering full color video images free of motion smearing. The small size of the display allows for innovative end product designs while the low power consumption extends product battery life. Industry standard digital interfaces are supported for easy product integration.

Features

- 300 x 224 full color pixels (201,000 effective dots)
- Fast switching Ferroelectric Liquid Crystal (FLC) material eliminates motion smearing
- Hexagonal pixel shape with 1/2 pixel off set effectively doubling perceived horizontal resolution and smoothing diagonal line appearance
- Vertical interpolation process implemented to increase perceived resolution
- Low power: 100 mW including LED illumination and display driver during typical operation
- 60 Hz frame rate (360 Hz RGB field rate)
- Adjustable brightness and selectable color gamut
- All digital pixel architecture with superior image quality
- Optimized for optical engines using 20X magnifications
- Supports consumer product temperature ranges

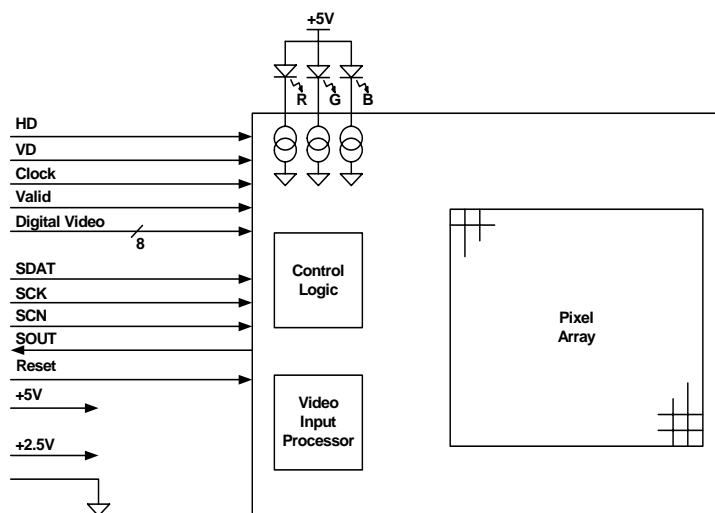
Applications

- Digital still camera viewfinders
- Video camcorder viewfinders
- Wireless communication devices
- Ultra-portable display applications

Supported Interfaces

- 8-bit RGB-serial data, H_d, V_d, Valid, Clock
- CCIR 601
- CCIR 656

Block Diagram



Product Specifications

LightView™ 201k-E Color Display Module

General

Format:	300 x 224
Array diagonal:	0.20"
Pixel Pitch:	13.5 μm x 13.5 μm
Fill Factor:	94%
Color depth:	18 bit (6 bit RGB)
Frame Rate:	360 Hz for 60 Hz NTSC Video Input Rate 360 Hz for 50 Hz Pal Video Input Rate

Optical¹

Brightness:	250 cd/m ²
Contrast Ratio:	80:1
White Color Temperature:	6,500 \pm 500 K

Electrical

Supported Interfaces:	Digital CCIR 601 or 656 8-bit RGB-serial data, H _d , V _d , Valid, Clock
Connector:	23 pin male flex connector [0.50 mm pitch, 0.30 mm nominal thickness]
Power Consumption ¹ :	Total Module: 100 mW (Display panel + LED Illuminator + Integrated Controller)
Power Supply Voltages:	2.5V \pm 8% (Core) 5.0V \pm 10% (LED)
I/O Input Level :	2.5V \rightarrow 3.3V tolerant

Package Dimensions: 15.2 x 11.3 x 9.2 mm (L x W x H)

Thermal

Operating temperature:	-10 °C to 70 °C
Storage temperature:	-30 °C to 83 °C

Product specifications are subject to change

¹Typical values at standard operating conditions and room temperature

About Displaytech

Displaytech dramatically improves display-based products by providing cost-advantaged microdisplays that deliver brilliant, real-life, digital images and enable the creation of next-generation consumer electronics and data storage products. Displaytech's patented Ferroelectric Liquid Crystal on Silicon (FLCOS) technology enables super-fast light switching at speeds 100 times faster than other liquid crystals, making possible the creation of microdisplays that deliver unsurpassed image resolution, power efficiency and ease of manufacturability. Founded in 1985, Displaytech has shipped over 15-million devices to some of the world's premier consumer electronics companies. Displaytech's customers include JVC, Kodak, Olympus, Hitachi, Konica Minolta, Kyocera and Hewlett-Packard.

For more information visit www.displaytech.com

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