

Product Data Sheet

LightViewä 311k Digital Display Module

Model LDM-0311-D1

Summary

The Displaytech LightView™ 311k Display Module is a high resolution, low power offering specifically designed for color digital still camera and video camcorder electronic viewfinder applications. The module provides 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. This high brightness display module delivers up to 350 cd/m² while consuming less than 175 mW at during typical operation. Industry standard digital interfaces are supported for easy product integration.

Features

- High resolution format with 432 x 240 full color pixels (311,000 effective dots)
- Fast switching Ferroelectric Liquid Crystal (FLC) material eliminates motion smearing
- Supports consumer product temperature ranges
- Low power: Less than 175 mW including LED illumination and display driver
- 360 Hz RGB field rate
- Adjustable brightness and gamma settings
- All digital pixel architecture with superior image quality
- Environmentally friendly

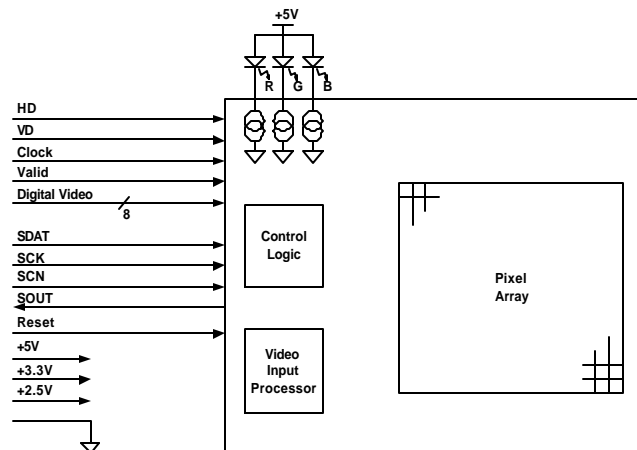
Applications

- Digital still camera viewfinders
- Video camcorder viewfinders
- Wireless communication devices
- Head mounted displays
- 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™ 311k Digital Display Module

General

Format:	432 x 240
Array diagonal:	0.26"
Pixel Pitch:	12 μm x 16.2 μm
Fill Factor:	93%
Color depth:	24 bit (8 bit RGB)
Color Field Rate:	360 Hz for 60 Hz NTSC Video Input Rate 300 Hz for 50 Hz PAL Video Input Rate

Optical¹

Brightness:	350 cd/m^2 maximum adjustable to 1/64 th full scale
Contrast Ratio:	100:1
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:	25 pin LIF connector, 0.5mm pitch
Power Consumption ¹ :	Total Module: 175 mW (Display panel + LED Illuminator + Integrated Controller)
Power Supply Voltages:	2.5V \pm 8% (Core) 3.3V \pm 10% (I/O) 5.0V \pm 10% (LED)

Package Dimensions: 20.0 x 19.2 x 11.4 mm (L x W x H)

Thermal

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

Preliminary specifications are subject to change

¹ Typical values at standard operating conditions and room temperature

About Displaytech

Displaytech, Inc. makes and sells microdisplays with superior image quality for electronic viewfinders in consumer digital still cameras, camcorders, and mobile communication devices. The low power and compact form factor of Displaytech's LightView™ microdisplay product line enable innovative end-product design. The patented Ferroelectric Liquid Crystal (FLC) technology at the heart of the Company's microdisplays is also used in a line of ultra-fast photonics switching products for emerging optical applications. A fabless manufacturing model positions Displaytech to keep pace with the high-volume consumer electronics market.

For more information visit www.displaytech.com

Telephone: 303-772-2191

Toll free (USA): 800-397-8124