

FEATURES

- 640 x 480 x 3 dot active resolution (921,600 dots)
- 644 x 484 x 3 dot total resolution (935,088 dots)
- 4.7 μm (H) x 14.1 μm (V) dot pitch
- Ultra-compact (0.44" diagonal)
- Active pixel area (9.0mm X 6.8mm)
- Parallel RGB analog input
- Power-saving sleep mode
- Integrated low-voltage detect
- Integrated horizontal and vertical scanners
- Bidirectional vertical and horizontal scanning

BLOCK DIAGRAM

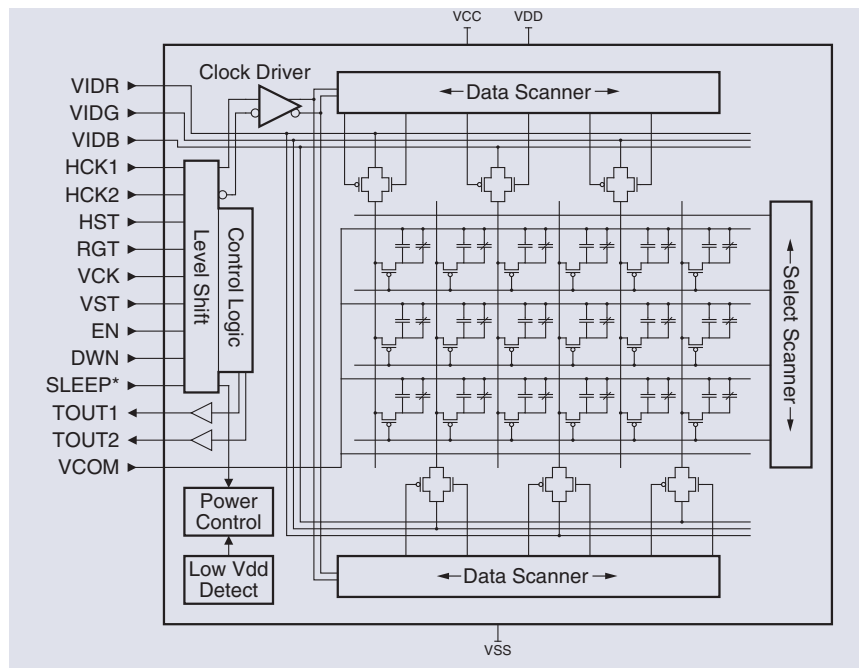


The CyberDisplay® VGA is a color-filter active-matrix liquid crystal display (AMLCD) with 307,200 (640 x 480 x 3) color pixel resolution. The display utilizes high-performance single-crystal silicon transistors, and is the smallest (0.44" diagonal) transmissive AMLCD for the resolution. The transmissive CyberDisplay VGA with color filter has the same display architecture as the industry standard LCD monitor or TV. The ultra-compact VGA is ideal for high end consumer or professional portable devices and industrial applications.

Functional Description

The CyberDisplay VGA has bidirectional horizontal and vertical scanner circuits integrated. Three analog video channels (RGB) with DC offset deliver video to the display. A sleep mode is provided to simplify system power management. The active array of 1920 x 480 dots is surrounded by opaque dummy pixels, for a total array size of 1932 x 484 dots. Each full color square pixel is composed of three primary color dots.

The CyberDisplay VGA can be driven by SSD1502/SSD1503 controller IC.



DISPLAY MARKETING

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HONG KONG

Tel: 852-2607-4151 Fax: 852-2607-4156

JAPAN

Tel: 81-3-5325-3549 Fax: 81-3-5322-2929

KOREA

Tel: 82-31-337-2451 Fax: 82-31-335-7680

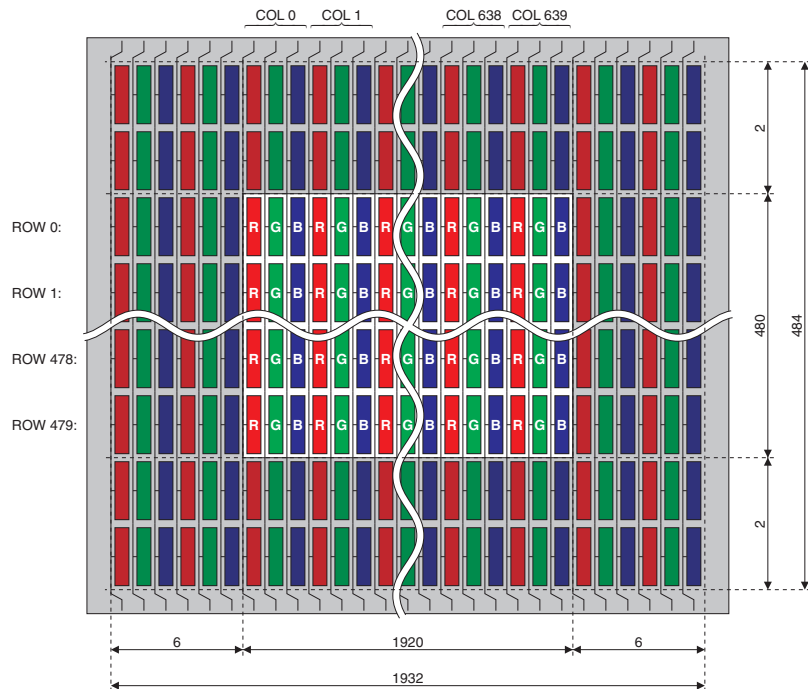
cyberdisplay@kopin.com

*Specifications subject to change without notice

DS KCD-VDCF-AA Rev. A 8/3/06

The CyberDisplay® VGA with a spatial resolution of 640 × 480 is ideal for high resolution digital camera viewfinders, eyewear, and portable consumer and industrial-type applications.

PIXEL LAYOUT



ELECTRICAL

ITEM	TYPICAL
POWER	
Supply Internal VDD	9.0 volt
Supply Interface	3.3 volt
Operating Current Internal	3.0 mA
Operating Current Interface	10 μ A
OPERATING ENVIRONMENT	
Temperature	-20° to 60°C
Humidity	10% to 90%, Non Condensing
DIMENSIONS <i>frameless</i>	
Height	10.60 mm
Width	11.46 mm
Depth	1.4 mm
Weight	1.5 Grams

Technical Support is available to customers via email, fax or telephone.

INTERFACE

PIN	SYMBOL	DESCRIPTION
1	VCOM	Pixel Common Electrode
2	VCOM	Pixel Common Electrode
3	VIDR	Red Video Input
4	VIDG	Green Video Input
5	VIDB	Blue Video Input
6	HCK1	Horizontal Clock
7	HCK2	Horizontal Clock
8	HST	Horizontal Start
9	RGT	Left-to-right Scan
10	DWN	Top-to-bottom Scan
11	VCK	Vertical Clock
12	VST	Vertical Start Pulse
13	EN	Row Enable
14	SLEEP*	Sleep Mode
15	VDD	Supply = +9.0 volt
16	VCC	Interface Supply = +3.3 volt
17	VSS	Supply = 0 volt
18	TESTOUT1	Test Output
19	TESTOUT2	Test Output
20	VCOM	Pixel Common Electrode*

*Signal is active low