VIDEOLOGY

IMAGING SOLUTIONS INC.

Original Equipment Manufacturer

Instruction Manual
45S023
2.36” TFT LCD Module

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For technical assistance with this product, please contact the supplier from whom the product was purchased.

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1. Document History

Revision	Issue Date	Reason	CN#
Rev A	11-05-09	Initial release	09-015?

2. Scope of Work

This specification shall be applied to model: 45S023, 2.36"color TFT LCD module.

3. Specifications

Electrical	**45S023**
Operating System	NTSC/ PAL auto switchable
Picture Size	2.36" diagonal
Resolution (H x V)	480 x 234 pixels
LCD Type	TFT active matrix, R.G.B. Delta
Color Configuration	R.G.B. Delta
Active Area (HxV)	48 x 35.685
Dot Pitch (W x H)	0.1 x 0.1525
Brightness	250 cd/m^2
Contrast Ratio	250:1
Response Time	Tr: 15ms Tf: 35ms
Backlight	LED
Input Signal	1Vp-p composite video at 75 Ohms
Video Angle	Left 45^0, Right 45^0, Up 15^0, Down 35^0
Lamp Life-time	10,000hr min.
Power Source	7 ~ 12VDC
Power Consumption	1.7W (max)

Environmental

Operation Temperature	0° C ~ 50° C (32° F ~ 122° F)
Storage Temperature	-20° C ~ 70° C (-4° F ~ 158° F)
Operating Humidity	Max. 85% RH
Storage Humidity	Max. 85% RH

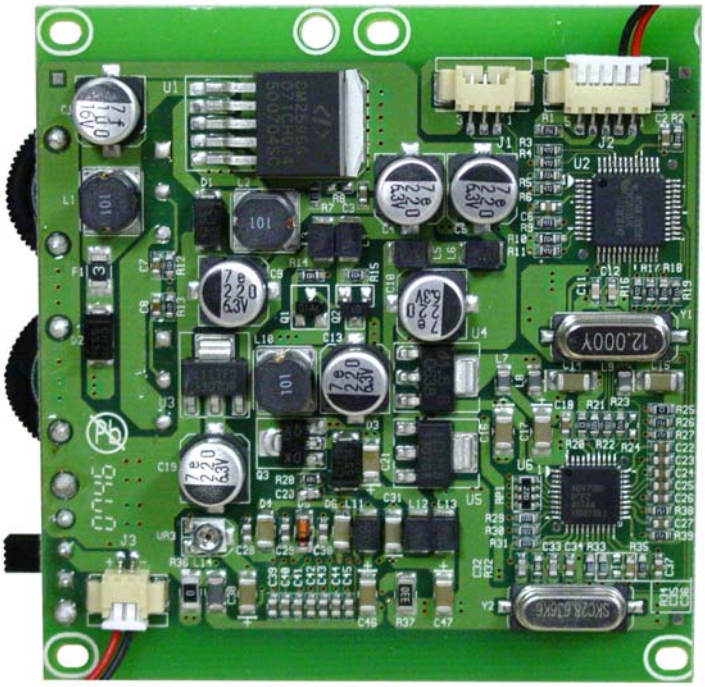
Mechanical

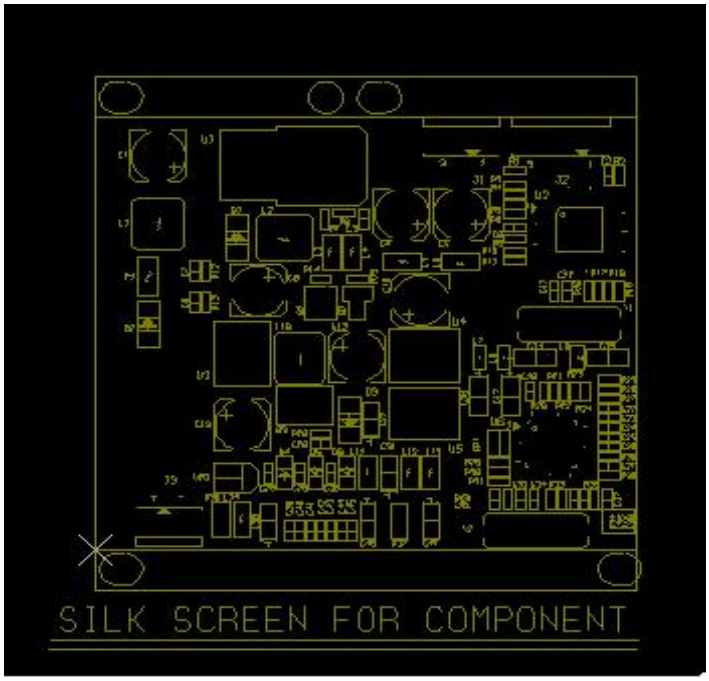
Dimensions W x H x D (Panel)	55.2mm x 47.55mm x 2.9mm (2.17" x 1.87" x 0.11")
Weight	16g (0.035 lb) panel only
External Controls	Brightness, Color
Safety Standards	FCC, CE, UL

4. Pin assignment

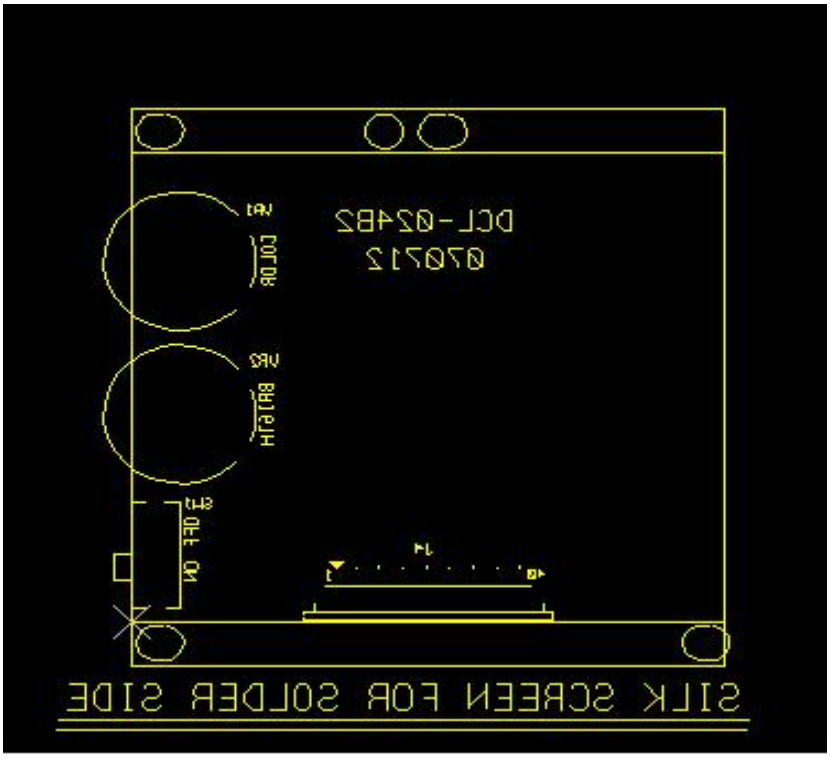
Pin No	Symbol	I/O	Description	Remark
1	VCOM	I	Common Electrode Voltage.	
2	Vgoff_H	PO	Negative high power supply for gate driver output.	
3	Vgoff_L	PO	Negative low power supply for gate driver output.	
4	C4P	C	Pins to connect capacitance for power circuitry.	
5	C4M	C	Pins to connect capacitance for power circuitry	
6	VGH	PO	Gate output High Voltage.	
7	FRP	O	Frame polarity output for VCOM	
8	VCAC	C	Define the amplitude of the VCOM swing.	
9	Vint3	P	Intermediate voltage for charge Pump.	
10	C3P	C	Pins to connect capacitance for power circuitry.	
11	C3M	C	Pins to connect capacitance for power circuitry.	
12	Vint2	P	Intermediate voltage for charge Pump.	
13	C2P	C	Pins to connect capacitance for power circuitry.	
14	C2M	C	Pins to connect capacitance for power circuitry.	
15	Vint1	P	Intermediate voltage for charge Pump.	
16	C1P	C	Pins to connect capacitance for power circuitry	
17	C1M	C	Pins to connect capacitance for power circuitry	
18	PGND	P	Charge Pump Power GND.	
19	PVDD	P	Charge Pump Power VDD.	
20	DRV	PO	VLED boost transistor driving signal	
21	LED_A	I	Voltage of LED.	
22	GND	P	Ground for digital circuit	
23	FB	P	Ground of LED.	
24	AVDD	P	Analog power supply	
25	GND	P	Digital GND	
26	VCC	P	Digital power supply.	
27	CS	I	Serial communication chip select	
28	SDA	I	Serial communication data input.	
29	SCL	I	Serial communication clock input	
30	HSYNC	I	Horizontal sync input	
31	VSYNC	I	Vertical sync input	
32	SCLK	I	Clock Input.	
33	D7	I	Digital image data input(MSB).	
34	D6	I	Digital image data input.	
35	D5	I	Digital image data input.	
36	D4	I	Digital image data input.	
37	D3	I	Digital image data input.	
38	D2	I	Digital image data input.	
39	D1	I	Digital image data input.	
40	D0	I	Digital image data input(LSB).	

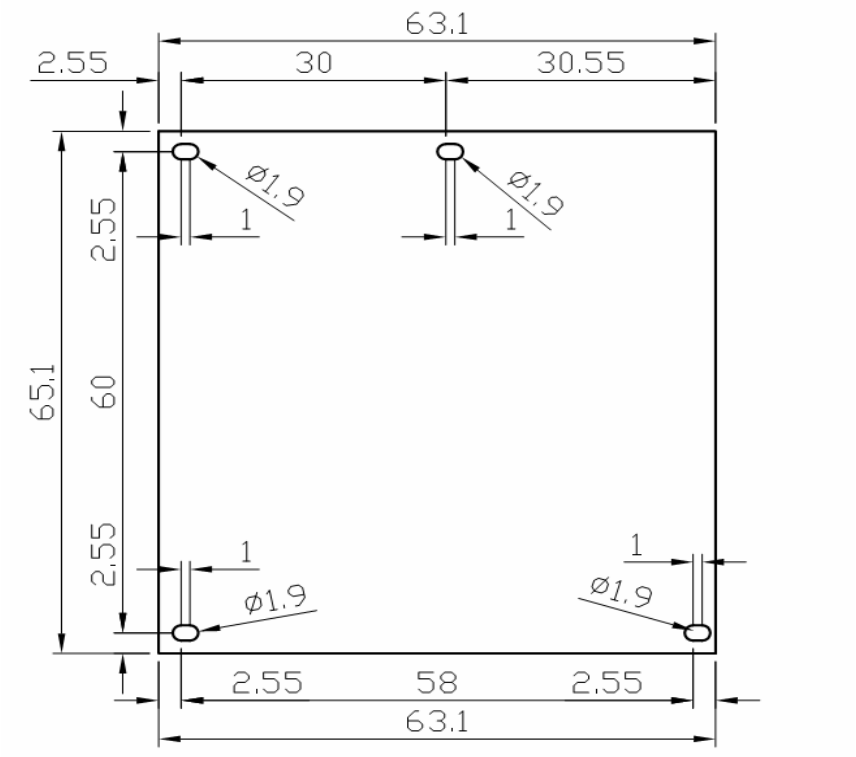
5. Out Look of Driver Board





Top Component: H=5.6mm
Bottom Component: H=6.3mm
PCB T=1.6mm


DCL-02482
070712
SILK SCREEN FOR SOLDER SIDE


63.1
2.55
30
30.55
Ø1.9
1
2.55
65.1
60
2.55
58
2.55
63.1

5.1. J1: ISP Interface

PIN	FUNCTION	REMARK
1	ISDA	
2	GND	
3	ISCL	

5.2. J2: Signal Interface

PIN	FUNCTION	REMARK
1	VIDEO IN	
2	GND	
3	VIDEO IN	
4	75 OHM TO GND	
5	GND	

5.3. J3: Power Interface

PIN	FUNCTION	REMARK
1	DC POWER IN	
2	POWER GND	

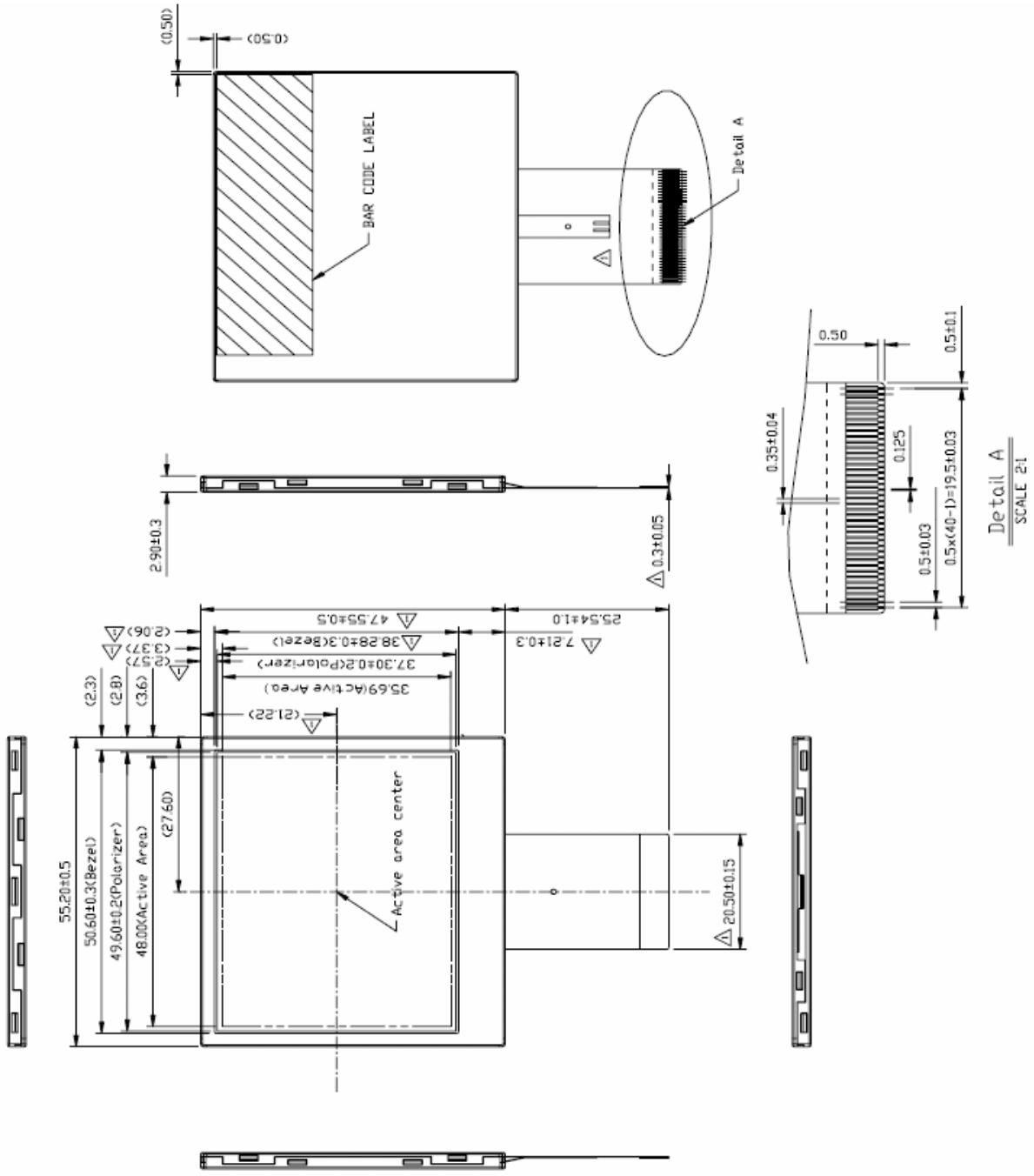
5.4. VR

NO.	FUNCTION	REMARK
VR1	COLOR ADJUSTMENT	
VR2	BRIGHTNESS ADJUSTMENT	
VR3	VCOM DC	
VR4	VCOM AC	

5.5. SW

NO.	FUNCTION	REMARK
SW1	POWER SWITCH	

6. Panel's Dimensions



7. Contact Information

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For OEM inquiries, contact Videology Imaging Solutions:

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Please visit our website at: http://www.videologyinc.com

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