



Chunghwa Picture Tubes, Ltd.

Product Specification

To : Ceramate_光碁

Date : 20061026

TFT LCD
CLAA070VC01

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Doc.No:	CLAA070VC01 -- Ver.0.2	Issue Date:	2006/07/17
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REVISION STATUS

Revision Notice	Description	Page	Rev. Date
0.0	First revision	--	
0.1	Change Power consumption	4	2006.05.22
	Delete Signal Input Voltage		
	Change Power Supply Current For LED	6	
	Change Logic Input Voltage		
	Change Power Supply Current For LCD		
	Change Remark*2)	7	
	Modify mechanical dimension : Front side	13	
	Change response time	15	
	Change viewing angle	15	
	Change Rmark*1)	15	
0.2	Change power consumption	4	2006.07.17
	Add to signal input voltage	5	
	Delete note*3) of static eletricity	5	
	Delete remark*2 of ICC rush current	5	
	Change electrical characteristics	7	
	Change definition of PIN 35	9	
	Change remarks *1)	9	
	Add to figure of remarks *2)	10	
	Change remarks *3)	10	
	Add to remarks *1)	11	
	Change block diagram	14	
	Change color coordinate	17	
	Change remarks *1)	17	
	Change condition of high temperature high humidity storage	20	
	Change condition of vibration	20	
	Add to ESD specification	20	

CONTENTS

1. OVERVIEW	4
2. ABSOLUTE MAXIMUM RATINGS	5
3. ELECTRICAL CHARACTERISTICS	7
3.1TFT LCD	7
3.2TFT-LCD current consumption.....	8
3.3 Power 、 Signal sequence.....	8
4. INTERFACE CONNECTION	9
5. INPUT SIGNAL(DE ONLY MODE)	11
5.1 Timing Specification	11
5.2 Timing sequence(Timing chart).....	12
5.3 Color Data Assignment.....	13
6. BLOCK DIAGRAM	14
7. MECHANICAL DIMENSION	15
7.1 Front Side	15
7.2 Rear Side.....	16
8. OPTICAL CHARACTERISTICS	17
9. RELIABILITY TEST	20
9.1. Temperature and humidity.....	20
9.2. Shock and Vibration.....	20
9.3. ESD Test.....	20
9.4 Judgment standard.....	20

1. OVERVIEW

CLAA070VC01 is 7" color TFT-LCD(Thin Film Transistor Liquid Crystal Display)module composed of LCD panel,driver ICs,control circuit,and LED backlight.

The 7.0"screen produces a high resolution image that is composed of 800×480 pixel elements in a stripe arrangement.Display 262K colors by 6 Bit R.G.B signal input.

General specifications are summarized in the following table:

ITEM	SPECIFICATION
Display Area (mm)	152.4(W)×91.44(H)
Number of Pixels	800(H)×3(RGB)×480(V)
Pixel Pitch (mm)	0.1905(H)×0.1905(V)
Color Pixel Arrangement	RGB vertical stripe
Display Mode	Normally white
Number of colors	262,144
Viewing Direction	6 o'clock
Response Time (Tr+Tf)	20ms
Brightness(cd/m ²)	220nit(typ)
NTSC ratio	50%
Viewing Angle(BL on,CR≥10)	140 degree(H) · 110degree(V)
Electrical Interface(data)	TTL
Power consumption(W)	2.0W(Typ)
Outline Dimension(in mm)	165(W)×104(H)×5(D)
Weight(g)	110g(Typ)
BL unit	LED
Surface Treatment	Anti-Glare · Hardness:3H

2. ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit	Note
Power Supply Voltage	V _{cc}	-0.5	5.0	V	
Signal Input Voltage	DCLK, DE, R0, G0, B0~R5, G5, B5	-0.5	V _{cc} + 0.5	V	
Static Electricity	VESDc	-200	+200	V	*2)
	VESDm	-15K	+15K	V	
ICC Rush Current	IRUSH	-	1	A	*3)
Operation Temperature	T _{op}	-30	85	°C	*1)
Storage Temperature	T _{stg}	-40	95	°C	*1)

Remarks :

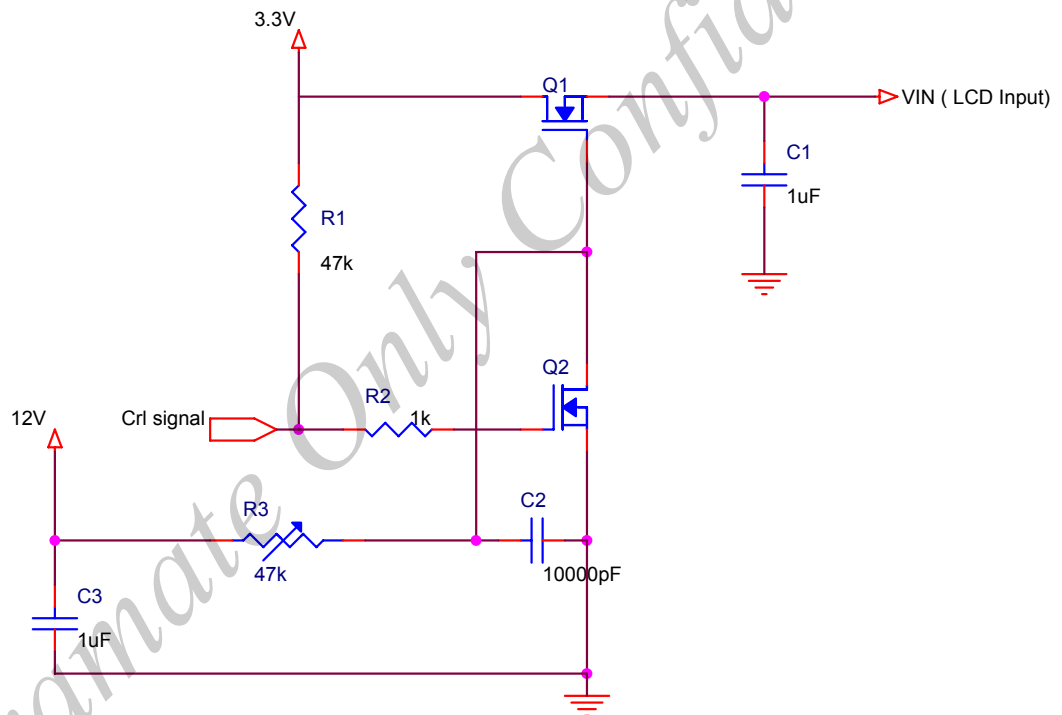
*1) If users use the product out off the environment operation range (temperature and humidity), it will concern for visual quality.

*2) Test Condition: IEC 61000-4-2 ,

VESDc : Contact discharge to input connector

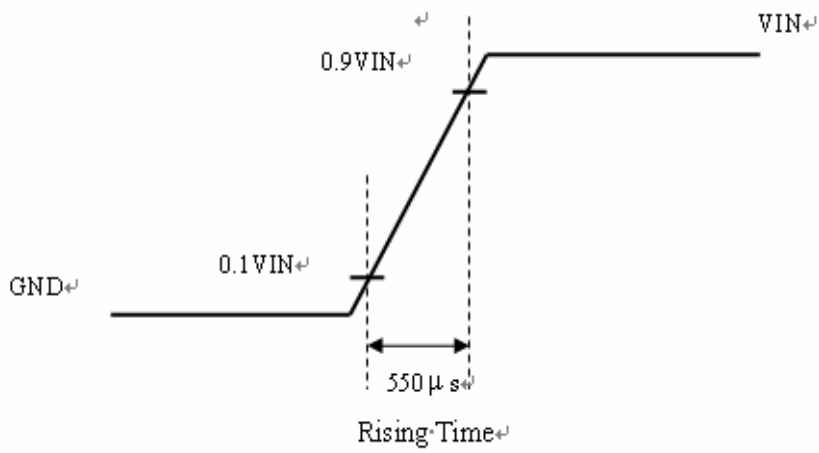
VESDm : Contact discharge to module

*3) The input pulse-current measurement system as below :



Control signal: High(+3.3V)→Low(GND)

Supply Voltage of rising time should be from R3 and C2 tune to 550 us.



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3. ELECTRICAL CHARACTERISTICS

3.1TFT LCD

Ta=25°C

Item	Symbol	Min.	Typ	Max.	Unit	Note
Power Supply Voltage For LCD	VCC	3.0	3.3	3.6	V	*1)
Power Supply Voltage For LED	VDD	4.5	5	5.5	V	
Logic Input Voltage	VIH	VCC*0.7	--	VCC	V	
	VIL	0	--	VCC*0.3	V	
ADJ Input Voltage	VIH	3.0		3.3	V	
	VIL	GND		0.3	V	

Remarks :

*1)VCC –dip codition:

When $2.7\text{ V} \leq \text{VCC} < 3.0\text{ V}$, $t_d \leq 10\text{ ms}$.

VCC > 3.0V , VCC-dip condition should be same as VCC-turn-on condition.

