



Product Specification

F070PET-TA1

- ☐ Draft Specifications
☐ Preliminary Specifications
☒ Final Specifications

Title	7.0-inches Touch Display Product Specifications
Model Name	F070PET-TA1
Version	3

Customer	
Approved by	Date
Notice: This Specification is subject to change without notice.	

Approved By	Prepared By
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2025-12-16	2025-12-16



REVISION HISTORY

Version	ECN No.	Description of Changes	Date	Prepared
0		Draft specification first edition	2023-01-03	Allen Fang
1		Final Specification first edition	2024-07-05	Allen Fang
2		Modified Temperature Spec & Label	2025-11-04	Allen Fang
3		Modified Drawing	2025-12-16	Allen Fang



CONTENTS

1. GENERAL DESCRIPTION	4
1.1. INTRODUCTION	4
1.2. FEATURES	4
1.3. APPLICATION	4
1.4. GENERAL SPECIFICATIONS	5
2. ABSOLUTE MAXIMUM RATINGS	6
3. ELECTRICAL CHARACTERISTICS	7
3.1. LCD MODULE	7
3.2. LCD BACKLIGHT UNIT	10
3.3. TOUCH CONTROL	11
3.4. LCD BLOCK DIAGRAM	11
3.5. INPUT TERMINAL PIN ASSIGNMENT	12
3.6. TOUCH CONTROL PIN ASSIGNMENT :	13
3.7. LCD COLOR DATA INPUT ASSIGNMENT	14
4. SIGNAL TIMING SPECIFICATION	16
4.1. LCD COLOR INPUT DATA REFERENCE	16
4.2. POWER SEQUENCE FOR LCD	18
4.3. THE INPUT DATA FORMAT	19
4.4. SCANNING DIRECTION	20
5. OPTICAL CHARACTERISTICS	21
5.1. TEST CONDITIONS	21
5.2. OPTICAL SPECIFICATIONS	21
6. RELIABILITY TEST ITEMS	24
7. LABEL	24
8. MECHANICAL CHARACTERISTICS	25
9. ENGINEERING DRAWING	27



1. GENERAL DESCRIPTION

1.1. INTRODUCTION

F070PET-TA1 is a 7.0" color active matrix TFT LCD module G070ACE-LH1 with projected capacitive multi-touch B070PFU-E06 air bonding.

The display format is intended to support the WXGA mode (800(H) x 480(V)) screen and 1 channel 30 pins LVDS interface, can display 262k or 16.7M colors with white LEDs backlight built in PCBA.

1.2. FEATURES

- Excellent Brightness (1000 nits)
- Ultra high contrast ratio (800:1)
- Fast response time ($T_R + T_F = 25\text{ms}$)
- WXGA (800 x 480 pixels) resolution
- DE (Data Enable) only mode
- LVDS (Low Voltage Differential Signaling) interface
- PSWG (Panel Standardization Working Group)
- Ultra wide viewing angle: 169(H)/ 169(V) (CR>10) AAS technology
- 180 degree rotation display option
- Wide operation temperature

1.3. APPLICATION

- TFT LCD monitor
- Industrial application

1.4. GENERAL SPECIFICATIONS

Parameter	Specification	Unit	Remarks
Active Area Size	7.0	inch	
Display Area	152.4x 91.44 (V)	mm	
Outline Dimension	170 (H) x 110 (V) x 10.62 (D)	mm	D:PCAP+LCM
Weight	250±10	g	
Driver Element	a-Si TFT active matrix	-	
Display Colors	16,194,277 / 262,144	Colors	
Number of Pixels	800 (H) x 480 (V)	pixels	
Pixel Pitch	0.1905 (H) x 0.1905(W)	mm	
Pixel Arrangement	RGB vertical stripe	-	
Display Mode	Transmissive mode / Normal Black	-	
Touch Technology	Projected Capacitive Multi-Touch Panel	-	
Touch Method	Finger or exclusive pen	-	
Numbers of Touch	10	Points	
Touch Sensor Glass Type	Strengthening Glass	-	
Touch Controller IC	EETI, EXC80W32	-	
Touch Driver Interface	USB / I ² C	-	
Support OS	Windows (Embedded/CE/XP/2000/Vista/7/8/10) / Linux / Android	-	

2. ABSOLUTE MAXIMUM RATINGS

The followings are maximum values which, if exceed, may cause faulty operation or damage to the unit.

Parameter	Symbol	Min.	Max.	Unit	Remarks
Logic/LCD Drive Voltage	V _{DD}	-0.3	18	V	Note 1
Input Voltage of Signal	V _{In}	-0.3	5.0	V	
Operating Temperature	T _{op}	-20	+70	°C	Note 2
Operating Humidity	H _{op}	10	90	%RH	
Storage Temperature	T _{st}	-30	+80	°C	
Storage Humidity	H _{st}	10	90	%RH	
Touch DC Supply Voltage	USB_V _{DD}	-0.3	6.0	V	

Note:

1. Duration: 50 msec.
2. Maximum Wet-Bulb temperature should be 39°C and no condensation.

The relative humidity must not exceed 90% non-condensing at temperatures of 40°C or less. At temperatures greater than 40°C, the wet bulb temperature must not exceed 39°C.

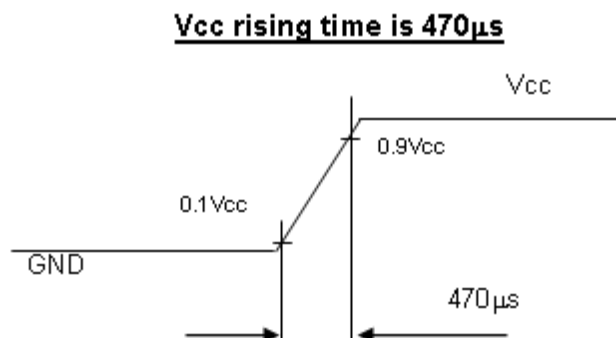
3. ELECTRICAL CHARACTERISTICS

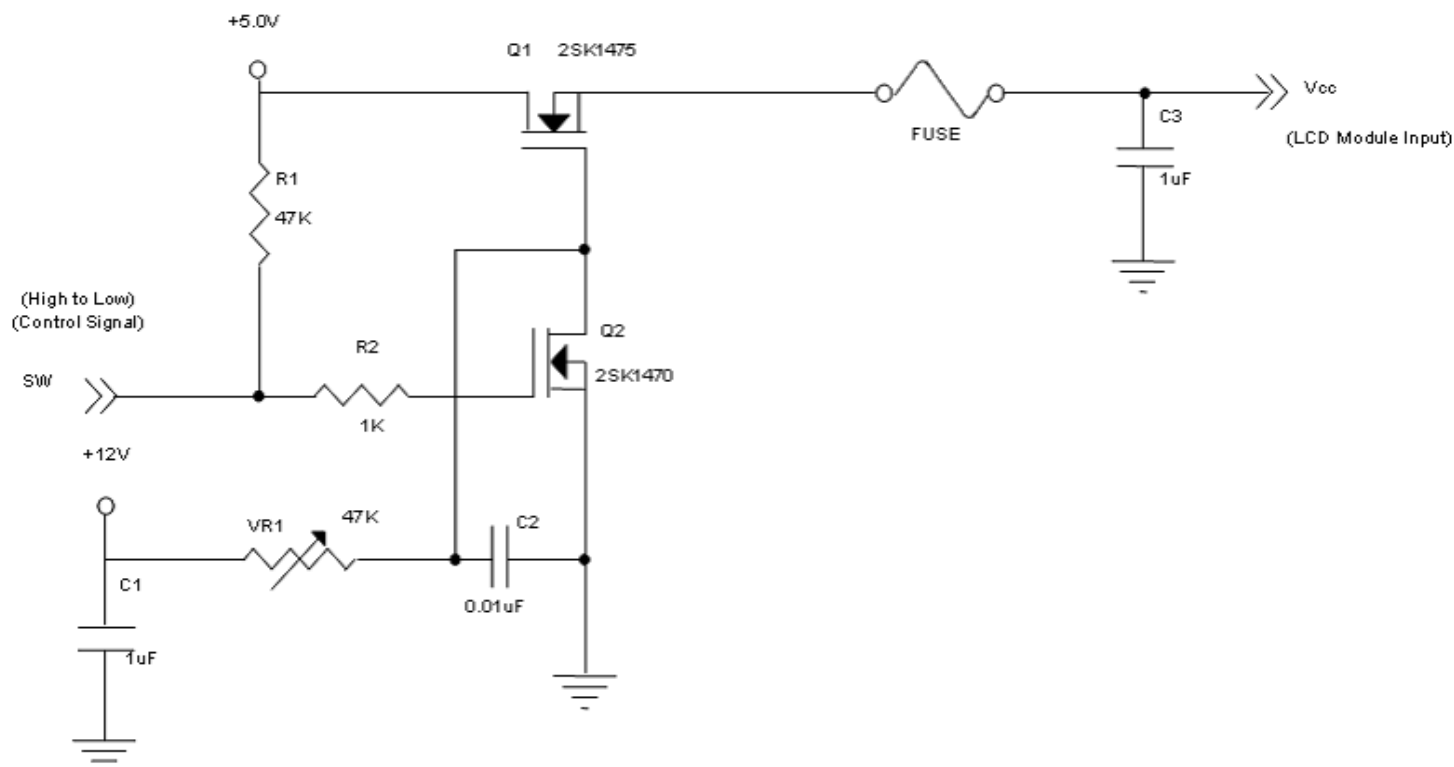
3.1. LCD MODULE

Parameter		Symbol	Values			Unit	Notes
			Min.	Typ.	Max.		
Power Supply Input Voltage		V_{CC}	3.0	3.3	3.6	V	1
Power Supply Ripple Voltage		V_{RP}	-	-	100	mV	
Rush Current		I_{RUSH}	-	-	2	A	2
Power Supply Input Current	Black Pattern	I_{CC}	-	135	200	mA	3.a
	White Pattern		-	85	135	mA	3.b
	Vertical Stripe		-	145	220	mA	3.c
LVDS differential input voltage		V_{id}	200	-	600	mV	
LVDS common input voltage		V_{ic}	1.0	1.2	1.4	V	
Differential Input Voltage for LVDS Receiver Threshold	"H" Level	V_{TH}	-	-	+100	mV	
	"L" Level	V_{TL}	-100	-	-	mV	
Logic Input Voltage	"H" Level	V_{IH}	2.6	-	V_{CC}	V	
	"L" Level	V_{IL}			0.7	V	
LVDS terminating resistor		R_T	-	100	-	ohm	

Notes:

1. The ambient temperature is $T_a = 25 \pm 2 \text{ }^{\circ}\text{C}$.
2. Measurement Condition :





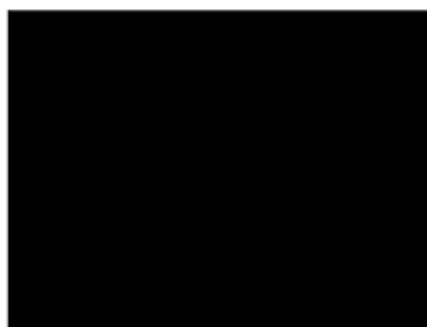
3. The specified power supply current is under the conditions at $V_{cc} = 3.3\text{ V}$, $T_a = 25 \pm 2\text{ }^{\circ}\text{C}$, $F_r = 60\text{ Hz}$, whereas a power dissipation check pattern below is displayed.

a. White Pattern



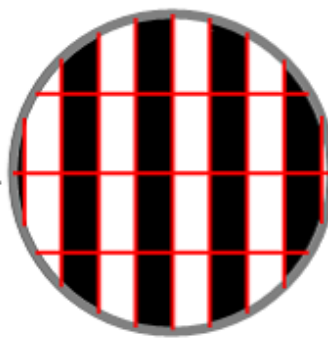
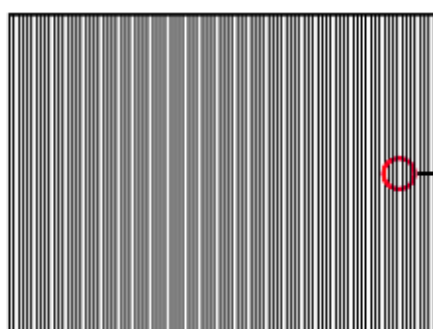
Active Area

b. Black Pattern



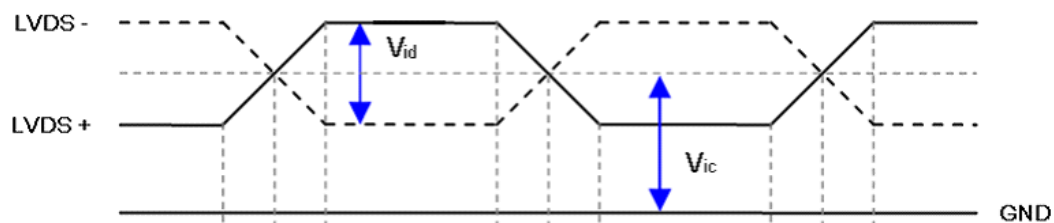
Active Area

c. Vertical Stripe Pattern



4. The power consumption is specified at the pattern with the maximum current.

5. VID waveform condition

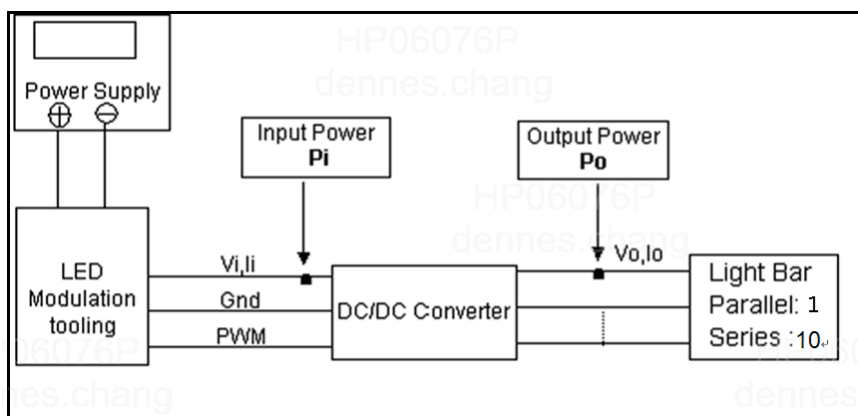


3.2. LCD BACKLIGHT UNIT

Parameter		Symbol	Values			Unit	Notes
			Min.	Typ.	Max.		
Converter Input Voltage		V_i	10.8	12	13.2	V	(Duty 100%)
Converter Input Ripple Current		V_{iRP}	-	-	500	mV	
Converter Input Current		I_i	0.2	0.3	0.4	A_{DC}	@ $V_i=12V$ (Duty 100%)
Converter Inrush Current		I_{iRUSH}	-	5	-	A	@ V_i rising time =10ms ($V_i=12V$)
Input Power Consumption		P_{BL}	-	3.5	4.0	W	1
EN Control Level	Backlight on	ENLED (BLON)	2.5	3.3	5.0	V	
	Backlight off		0	-	0.3	V	
PWM Control level	PWM High	Dimming (E_PWM)	2.5	-	5.0	V	
	PWM Low		0	-	0.15	V	
PWM Noise Range		V_{Noise}	-	-	0.1	V	
PWM Control Frequency		f_{PWM}	190	200	20K	Hz	3
PWM Control Duty Ratio		-	5	-	100	%	3, Suggestion @ 190Hz< f_{PWM} <1kHz
			20	-	100	%	3, @ 1kHz≤ f_{PWM} <20kHz
LED Life Time		LT_{LED}	50,000	-	-	Hr	2

Notes:

1. LED current is measured by utilizing a high frequency current meter as shown below:



2. The lifetime of LED is estimated data and defined as the time when it continues to operate under the conditions at $T_a = 25 \pm 2^\circ C$ and Duty 100% until the brightness becomes $\leq 50\%$ of its original value. Operating LED at high temperature condition will reduce life time and lead to color shift.

3. At 190 ~1KHz PWM control frequency, duty ratio range is restricted from 5% to 100%.
 1K ~20KHz PWM control frequency, duty ratio range is restricted from 20% to 100%. If PWM control frequency is applied in the range from 1 KHz to 20KHz, The “non-linear” phenomenon on the Backlight Unit may be found. It’s a suggestion that PWM control frequency should be less than 1 KHz.

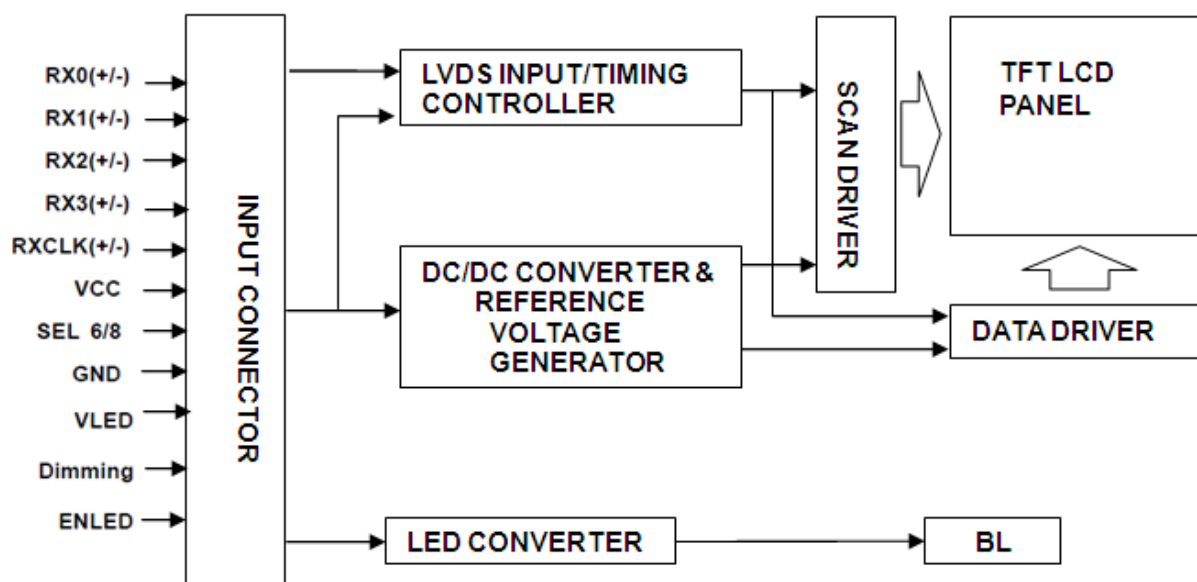
3.3. TOUCH CONTROL

NO.	Item	Specification
1	Touch Controller IC	EXC80W32
2	Number Of Support	10 Fingers Touch
3	Interface	USB & I2C
4	OS	Android, Linux, Win7, Win8, Win10,XP

Remark: Regarding the IC specification, please refer the IC data sheet from supplier

Interface	Symbol	Condition	Min.	Typ.	Max.	Unit
I ² C	V _{DD}	-	-	3.3	-	V
USB				5		

3.4. LCD BLOCK DIAGRAM



3.5. INPUT TERMINAL PIN ASSIGNMENT

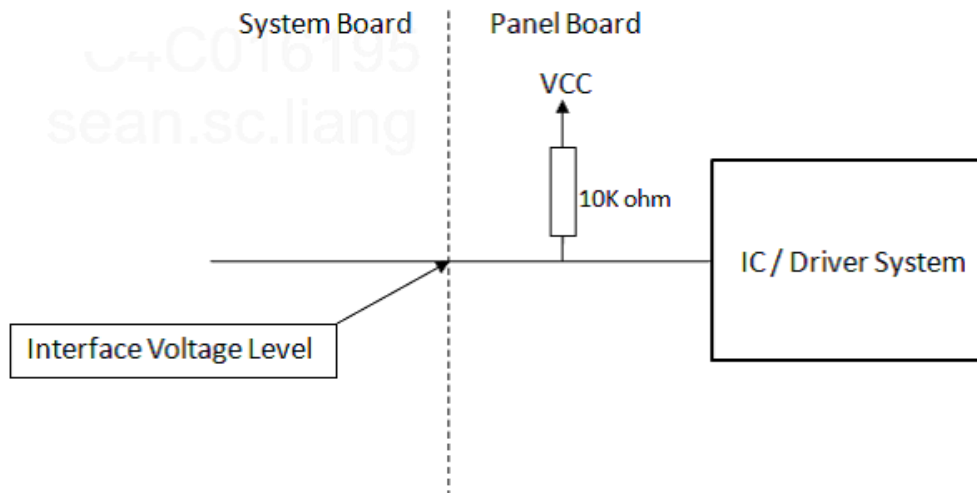
Pin	Symbol	Description	Note
1	12V	LED power	
2	12V	LED power	
3	12V	LED power	
4	12V	LED power	
5	ENLED	LED Enable Pin	
6	Dimming	Backlight Adjust	
7	N.C.	No connection (Reserve for INX test)	3
8	N.C.	No connection (Reserve for INX test)	3
9	VCC	Power Supply: +3.3V	
10	VCC	Power Supply: +3.3V	
11	GND	Ground	
12	GND	Ground	
13	RX0-	Negative transmission data of pixel 0	4
14	RX0+	Positive transmission data of pixel 0	
15	GND	Ground	
16	RX1-	Negative transmission data of pixel 1	
17	RX1+	Positive transmission data of pixel 1	
18	GND	Ground	
19	RX2-	Negative transmission data of pixel 2	
20	RX2+	Positive transmission data of pixel 2	
21	GND	Ground	
22	RXCLK-	Negative of clock	
23	RXCLK+	Positive of clock	
24	GND	Ground	
25	RX3-	Negative transmission data of pixel 3	
26	RX3+	Positive transmission data of pixel 3	
27	GND	Ground	
28	SEL6/8	LVDS 6/8 bit select function control, Low: 6-bit Input Mode / High or NC: 8-bit Input Mode	2
29	GND	Ground	
30	GND	Ground	

Note1. LCD connector part No.: Starconn 093G30-B0001A-G4 or equivalent

Note2. "Low" stands for 0V. "High" stands for 3.3V. "NC" stands for "No Connected".

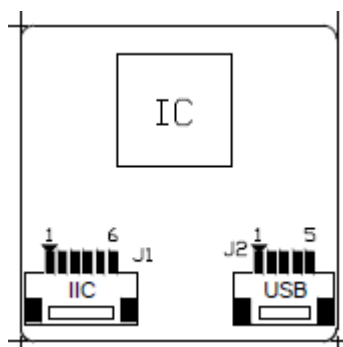
Note3. Pin7, Pin8 input signals should be set to no connection or ground, this module would operate normally.

SEL 6/8 pin:



3.6. TOUCH CONTROL PIN ASSIGNMENT :

J1 I ² C		J2 USB	
PIN	NAME	PIN	NAME
1	RST	1	VDD_5.0V
2	VDD_3.3V	2	D-
3	GND	3	D+
4	INT	4	GND
5	SDA_3.3V	5	GND
6	SCL_3.3V		



3.7. LCD COLOR DATA INPUT ASSIGNMENT

The brightness of each primary color (red, green and blue) is based on the 6 bit gray scale data input for the color; the higher the binary input, the brighter the color. The table below provides a reference for color versus data input.

Color		Data Signal																	
		Red						Green						Blue					
		R5	R4	R3	R2	R1	R0	G5	G4	G3	G2	G1	G0	B5	B4	B3	B2	B1	B0
Basic Colors	Black	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	Green	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	Blue	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	Cyan	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
	Magenta	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1
	Yellow	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	White	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gray Scale of Red	Red (0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (1)	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Red (2)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
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	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Red (61)	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Red (62)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (63)	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Gray Scale of Green	Green (0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green (1)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	Green (2)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
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	Green (61)	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0
	Green (62)	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
	Green (63)	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
Gray Scale of Blue	Blue(0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Blue (1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Blue (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
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	Blue (61)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1
	Blue (62)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
	Blue (63)	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1

Note1. 0: Low Level Voltage, 1: High Level Voltage



Product Specification

F070PET-TA1

The brightness of each primary color (red, green and blue) is based on the 8 bit gray scale data input for the color; the higher the binary input, the brighter the color. The table below provides a reference for color versus data input.

Color		Data Signal																							
		Red								Green								Blue							
		R7	R6	R5	R4	R3	R2	R1	R0	G7	G6	G5	G4	G3	G2	G1	G0	B7	B6	B5	B4	B3	B2	B1	B0
Basic Colors	Black	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	Blue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Cyan	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Magenta	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Yellow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	White	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gray Scale of Red	Red (0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (1)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (2)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	Red (253)	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (254)	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red (255)	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gray Scale of Green	Green (0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green (1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Green (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
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	Green (253)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0
	Green (254)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	Green (255)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Gray Scale of Blue	Blue(0)/Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Blue (1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Blue (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
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	Blue (253)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1
	Blue (254)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0
	Blue (255)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Note1. 0: Low Level Voltage, 1: High Level Voltage

4. SIGNAL TIMING SPECIFICATION

4.1. LCD COLOR INPUT DATA REFERENCE

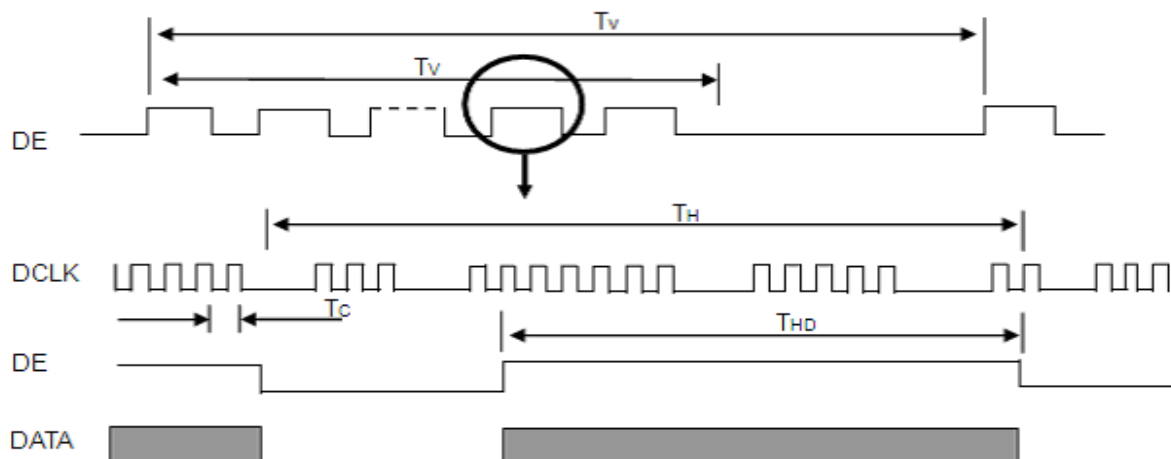
The signal input timing specification as shown as the following table and timing diagram.

Signal	Item	Symbol	Min.	Typ.	Max.	Unit	Note
LVDS Clock	Frequency	F_C	25.2	25.4	35.7	MHz	
	Period	T_C		39.37		ns	
	Input cycle to cycle jitter	T_{rdl}	$-0.02 \cdot T_C$	-	$0.02 \cdot T_C$	ns	a
	Input Clock to data skew	TLVCCS	$-0.02 \cdot T_C$	-	$0.02 \cdot T_C$	ps	b
	Spread spectrum modulation range	F_{clkin_mod}	$F_C \cdot 98\%$	-	$F_C \cdot 102\%$	MHz	c
	Spread spectrum modulation frequency	F_{SSM}	23	-	93	KHz	
Vertical Display Term	Frame Rate	F_r	-	60	-	Hz	$T_v = T_{vd} + T_{vb}$
	Total	T_v	488	490	611	T_h	
	Active Display	T_{vd}	480	480	480	T_h	
	Blank	T_{vb}	8	10	131	T_h	
Horizontal Display Term	Total	T_h	860	864	974	T_c	$T_h = T_{hd} + T_{hb}$
	Active Display	T_{hd}	800	800	800	T_c	
	Blank	T_{hb}	60	64	174	T_c	

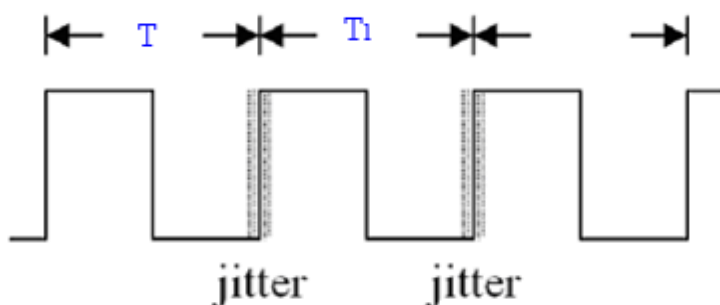
Note (1) The module is operated by DE only mode, Hsync and Vsync input signals are ignored.

Note (2) The $T_v(T_{vd}+T_{vb})$ must be integer, otherwise, this module would operate abnormally.

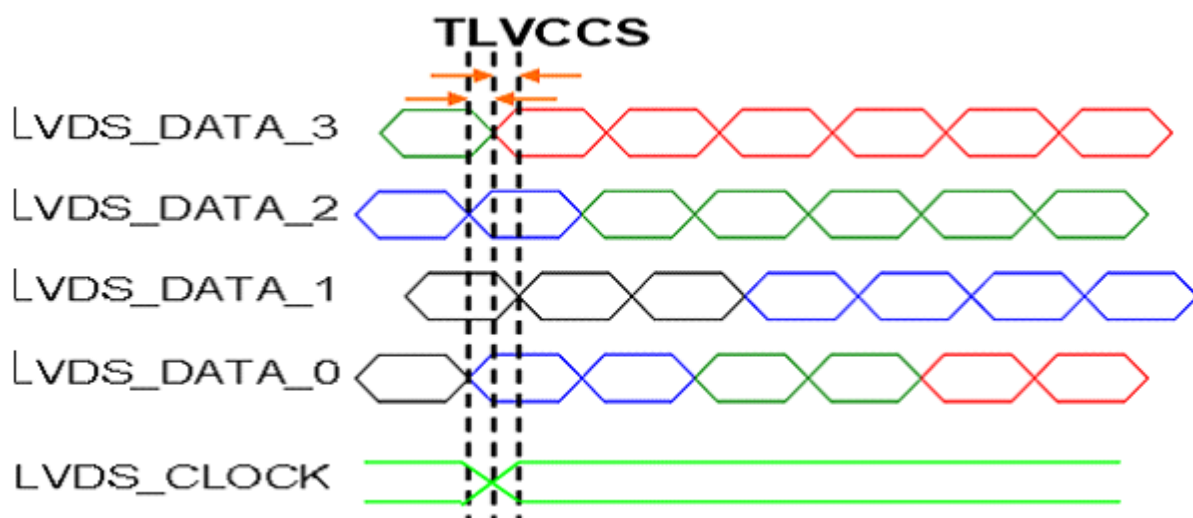
INPUT SIGNAL TIMING DIAGRAM



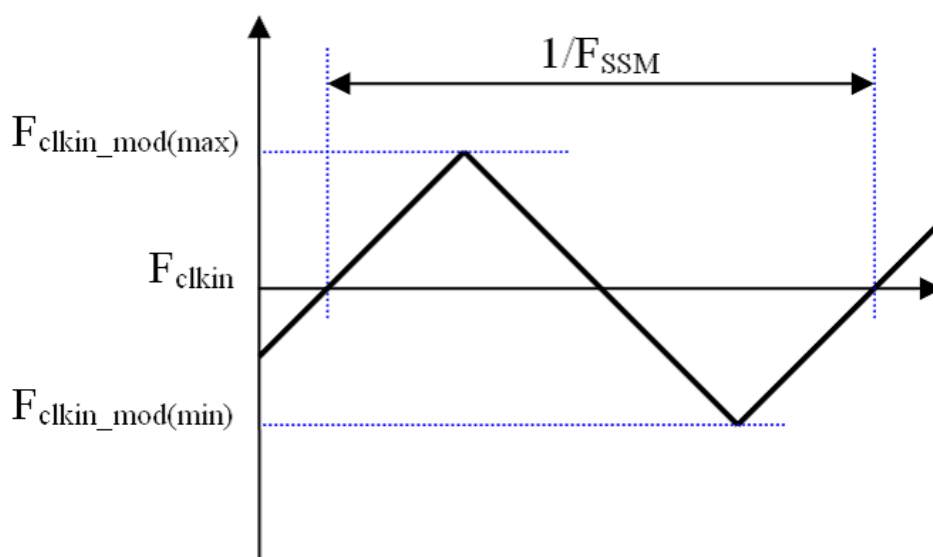
Note (3) The input clock cycle-to-cycle jitter is defined as below figures. $Trcl = |T1 - T|$



Note (4) Input Clock to data skew is defined as below figures.



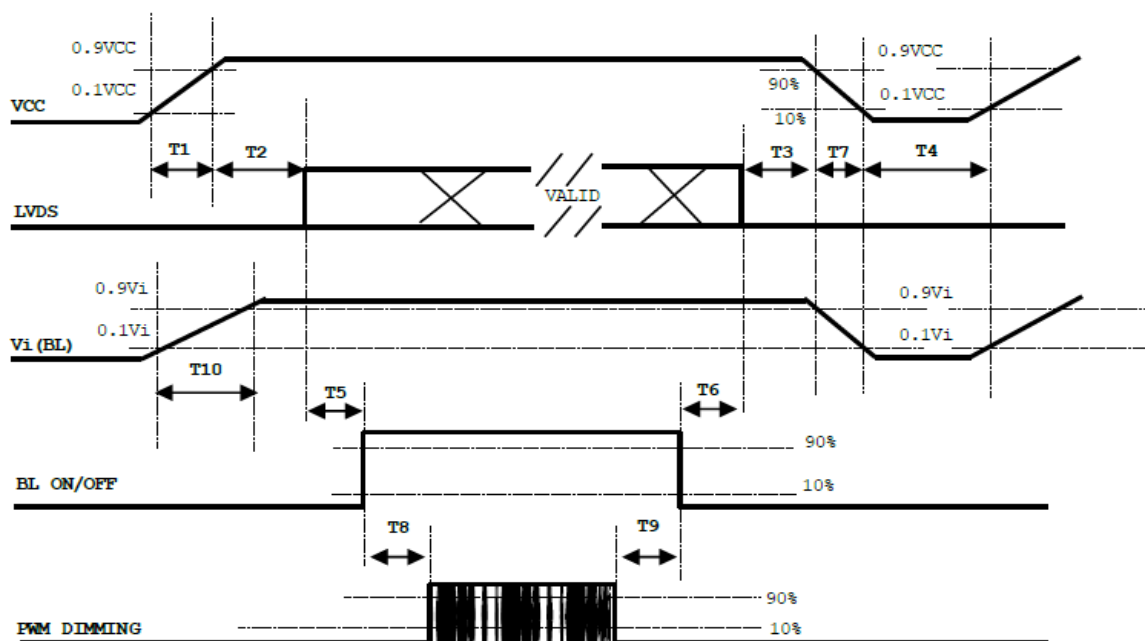
Note (5) The SSCG (Spread spectrum clock generator) is defined as below figures.



4.2. POWER SEQUENCE FOR LCD

The power sequence specifications are shown as the following table and diagram.

Power ON/OFF sequence



Timing Specification :

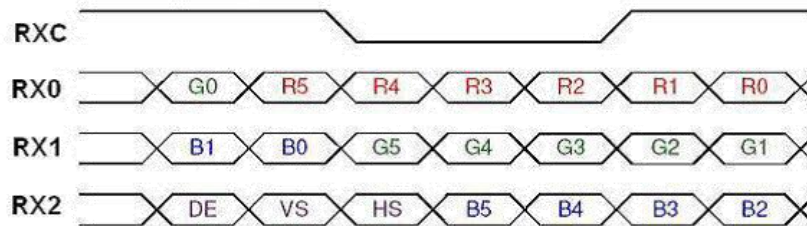
Parameter	Values			Unit
	Min.	Typ.	Max.	
T1	0.5	---	10	Ms
T2	0	---	50	Ms
T3	0	---	50	Ms
T4	500	---	---	Ms
T5	450	---	---	Ms
T6	200	---	---	Ms
T7	10	---	100	Ms
T8	10	---	---	Ms
T9	10	---	---	Ms
T10	20	---	50	ms

Note:

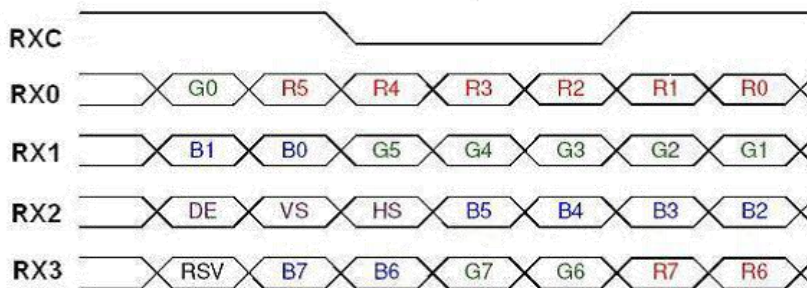
- (1) The supply voltage of the external system for the module input should be the same as the definition of Vcc.
- (2) When the backlight turns on before the LCD operation of the LCD turns off, the display may momentarily become abnormal screen.
- (3) In case of VCC = off level, please keep the level of input signals on the low or keep a high impedance.
- (4) T4 should be measured after the module has been fully discharged between power off and on period.
- (5) Interface signal shall not be kept at high impedance when the power is on.
- (6) INX won't take any responsibility for the products which are damaged by the customers not following the Power Sequence.
- (7) There might be slight electronic noise when LCD is turned off (even backlight unit is also off). To avoid this symptom, we suggest "Vcc falling timing" to follow "T7 spec".

4.3. THE INPUT DATA FORMAT

SEL 6/8 = "High" for 6 bits LVDS Input



SEL 6/8 = "Low" or "NC" for 8 bits LVDS Input



Note (1) R/G/B data 7: MSB, R/G/B data 0: LSB

Note (2) Please be follow PSWG

Signal Name	Description	Remark
R7 R6 R5 R4 R3 R2 R1 R0	Red Data 7 (MSB) Red Data 6 Red Data 5 Red Data 4 Red Data 3 Red Data 2 Red Data 1 Red Data 0 (LSB)	Red-pixel Data Each red pixel's brightness data consists of these 8 bits pixel data.
G7 G6 G5 G4 G3 G2 G1 G0	Green Data 7 (MSB) GreenData 6 GreenData 5 GreenData 4 GreenData 3 GreenData 2 GreenData 1 GreenData 0 (LSB)	Green-pixel Data Each green pixel's brightness data consists of these 8 bits pixel data.
B7 B6 B5 B4 B3 B2 B1 B0	Blue Data 7 (MSB) Blue Data 6 Blue Data 5 Blue Data 4 Blue Data 3 Blue Data 2 Blue Data 1 Blue Data 0 (LSB)	Blue-pixel Data Each blue pixel's brightness data consists of these 8 bits pixel data.
RXCLKIN+ RXCLKIN-	LVDS Clock Input	
DE	Display Enable	
VS	Vertical Sync	
HS	Horizontal Sync	

4.4. SCANNING DIRECTION

The following figures show the image see from the front view. The arrow indicates the direction of scan.

Fig.1 Normal Scan



PCBA on the bottom side

5. OPTICAL CHARACTERISTICS

5.1. TEST CONDITIONS

Item	Symbol	Value	Unit
Ambient Temperature	Ta	25±2	°C
Ambient Humidity	Ha	50±10	%RH
Supply Voltage	According to typical value and tolerance in “ELECTRICAL CHARACTERISTICS”		
Input Signal			
PWM Duty Ratio	D	100	%

5.2. OPTICAL SPECIFICATIONS

The relative measurement methods of optical characteristics are shown here and all items are measured at the center point of screen except white variation. The following items should be measured under the test conditions described in 7.1 and stable environment shown in Note (5).

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Color Coordinates	Red	R _x	$\theta_x=0^\circ, \theta_y=0^\circ$ Grayscale Maximum	0.534	0.584	0.634	-	1, 5
		R _y		0.280	0.330	0.380		
	Green	G _x		0.284	0.334	0.384		
		G _y		0.550	0.600	0.650		
	Blue	B _x		0.100	0.150	0.200		
		B _y		0.004	0.054	0.104		
	White	W _x		0.263	0.313	0.363		
		W _y		0.279	0.329	0.379		
Contrast Ratio		CR		600	800	--		2, 5
Surface Luminance (White)		L _{WH}		800	1000	--	Cd/m ²	4, 5
White Variation		δ _W	$\theta_x=0^\circ, \theta_y=0^\circ$	70	80		%	5, 6
Response Time		T _R	$\theta_x=0^\circ, \theta_y=0^\circ$	--	13	17	ms	3
		T _F		--	12	18	ms	
Viewing Angle	Horizontal	θ _r	CR≥10	80	89	--	Deg.	1, 5
		θ _l		80	89	--		
	Vertical	θ _u		80	89	--		
		θ _d		80	89	--		

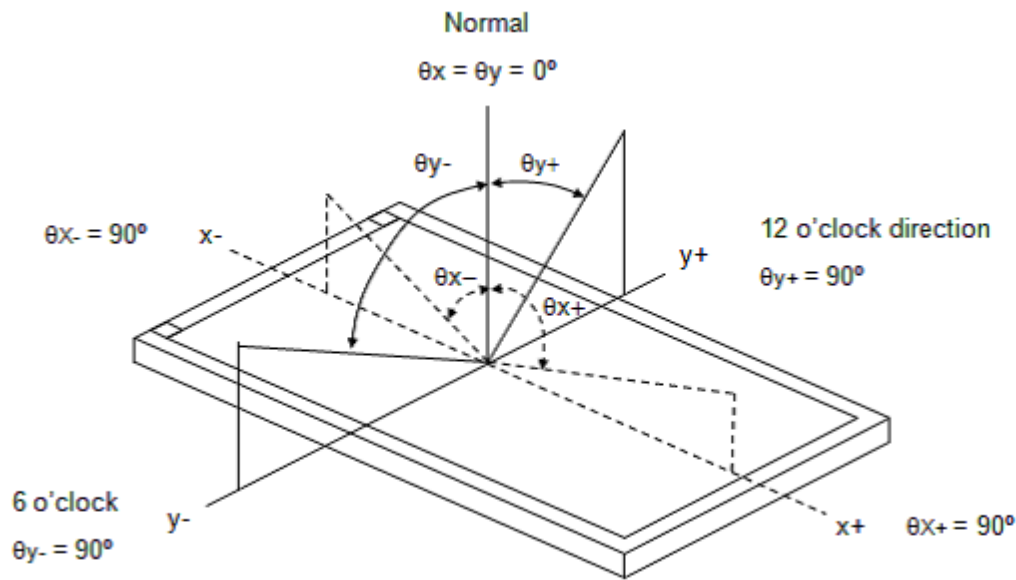
Definition :

Grayscale Maximum: Grayscale 255 (10 bits: grayscale 1023 ; 8 bits : grayscale 255 ; 6 bits: grayscale 63)

White: Luminance of Grayscale Maximum (All R,G,B)

Black: Luminance of grayscale 0 (All R,G,B)

Note 1: Definition of Viewing Angle (θ_x , θ_y):

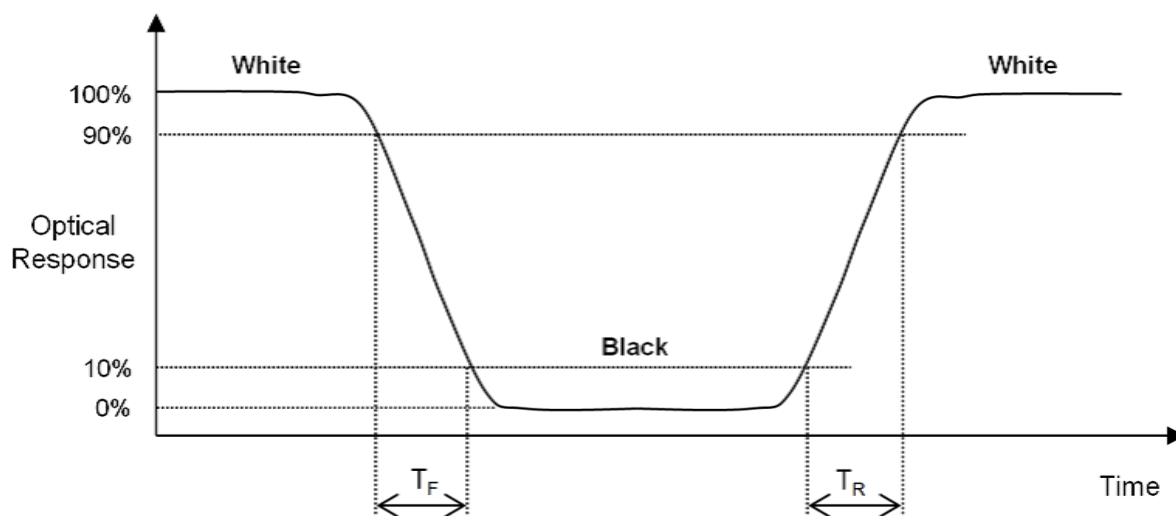


Note 2: Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression at center point.

Contrast Ratio (CR) = White / Black Note

Note 3: Definition of Response Time (T_R , T_F)

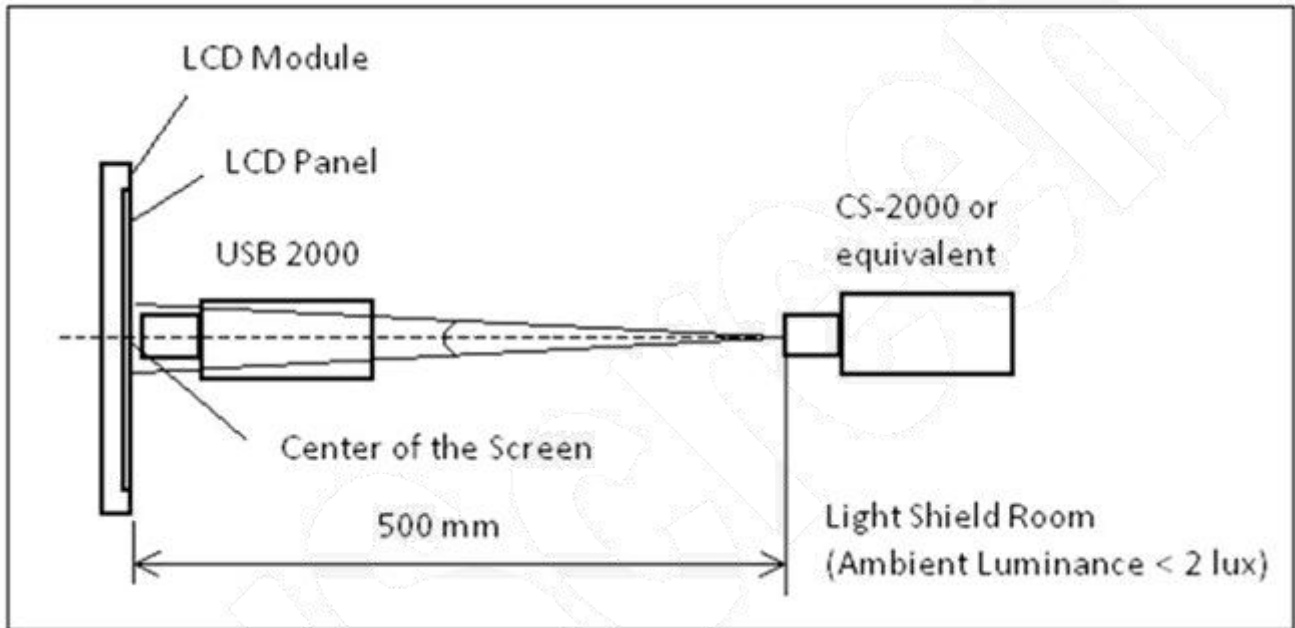


Note 4: Definition of Luminance of White (LC):

Measure the luminance of White at center point.

Note 5: Measurement Setup:

The LCD module should be stabilized at given temperature to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 40 minutes in a windless room. The measurement placement of module should be in accordance with module drawing.



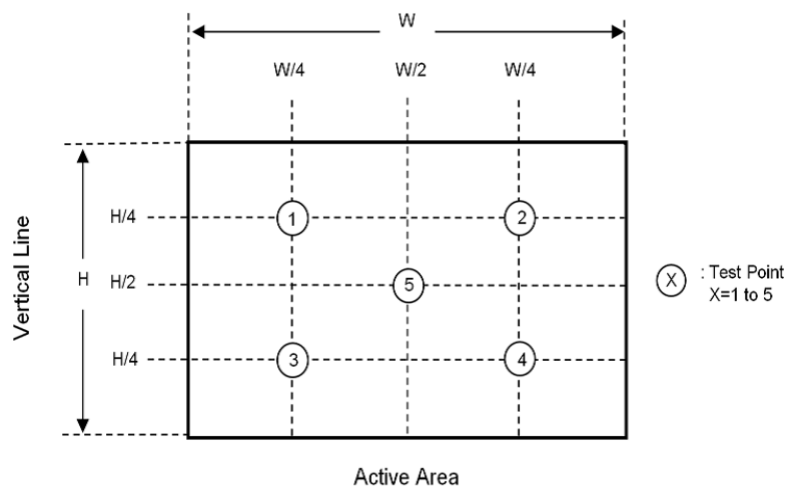
Note 6: Definition of White Variation (δW):

Measure the luminance of White at 5 points.

Luminance of White: $L(X)$, where X is from 1 to 5.

$$\delta W = \frac{\text{Minimum [} L(1) \text{ to } L(5) \text{]}}{\text{Maximum [} L(1) \text{ to } L(5) \text{]}} \times 100\%$$

Horizontal Line



6. RELIABILITY TEST ITEMS

Test Item		Condition
1	High temperature Storage test	80°C, 240hrs
2	Low temperature storage test	-30°C, 240hrs
3	High temperature operation test	70°C, 240hrs
4	Low temperature operation test	-20°C, 240hrs
5	High Temperature & High Humidity Operation Test	60°C, 90%RH, 240hrs
6	Thermal Cycle storage test	-20°C(30min)~70°C(30min), 10cycles

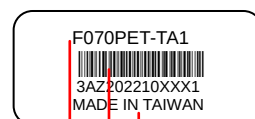
7. LABEL

Model NO. F070PET-TA1

條碼

SN 3A Z 20 2 21 0 XXX1

L=32mm



W=14mm

code 1,2 Production location

code 3 Production version

code 4,5 Production year

code 6 Production month

code 7,8 Production day

code 9 Production code

code 10,11,12,13 Serial number

字型:Arial (6)

code:128

字型:Arial (8)

8. MECHANICAL CHARACTERISTICS

Item		Dimension	Unit	Note
Outline Dimension	Horizontal	164.55	mm	PCAP : B070PFU-E06
	Vertical	104.71	mm	
	Depth	1.77	mm	
	Horizontal	170.00	mm	LCD : G070ACE-LH1
	Vertical	110.00	mm	
	Depth	8.85	mm	
Weight		250	g	F070PET-TA1
Item		Specification		Remarks
PCAP Viewing Area		153.00mm x 92.04 mm		
PCAP Sensor Area		163.55 mm x 103.71 mm		
PCAP FPC Length		57.00 mm		
PCAP Input method		Finger or exclusive pen		
PCAP Light Transmission		≥ 85%		
PCAP Operation force		≤ 10g		Finger Input
PCAP Hardness of surface		≥ 6H		Pressure 500gf test
PCAP Surface Treatment		Clear Type		

Front View



Back View



9. ENGINEERING DRAWING

