PRODUCT SPECIFICATION

4.3" a-Si TFT LCD MODULE
MODEL: T043480272-A8TMN-002   Ver:1.1

< ◇ >   Preliminary Specification

< ◆ >   Finally Specification

CUSTOMER'S APPROVAL	
CUSTOMER :	
SIGNATURE:	**DATE:**

APPROVED BY	PM REVIEWED	PD REVIEWED	PREPARED BY

Revision History

Revision	Date	Originator	Detail	Remarks
Ver 1.0	2016.10.27	ZFY	Initial Release	
1.1	2016.11.22	ZFY	Add weight	P4

Table of Contents

1. General Description

The specification is a transmissive type color active matrix liquid crystal display (LCD) which uses amorphous thin film transistor (TFT) as switching devices. This product is composed of a TFT-LCD panel, driver ICs and a backlight unit.

2. Module Parameter

Features	Details	Unit
Display Size(Diagonal)	4.3"	
LCD type	TN TFT	
Display Mode	Transmissive /Normally white	
Resolution	480 RGB x 272	Pixels
View Direction	6 O'clock	Best Image
Gray Scale Inversion Direction	12 O'clock	
Module Outline	105.5(H) x 67.2 (V) x 2.95 (T)　(Note1)	mm
Active Area	95.04(H) x 53.86(V)	mm
Pixel Pich	198(H) x 198(V)	um
Pixel Arrangement	RGB Vertical Stripe	
Polarizer Surface Treatment	Normal	
Display Colors	16M	
Interface	24-bit RGB interface	
Driver IC	ST7282T2	-
With or Without Touch Panel	Without	
Operating Temperature	**-20～70**	ºC
Storage Temperature	**-30～80**	ºC
Weight	43	g

Note 1: Exclusive hooks, posts , FFC/FPC tail etc.

3. Absolute Maximum Ratings

V_{SS}=0V, Ta=25ºC

Item	Symbol	Min.	Max.	Unit
Supply Voltage	VCC	-0.3	4.6	V
Storage temperature	T_{STG}	-30	+80	ºC
Operating temperature	T_{OP}	-20	+70	ºC

Note 1: If Ta below 50ºC, the maximal humidity is 90%RH, if Ta over 50ºC, absolute humidity should be less than 60%RH.

Note 2: The response time will be extremely slow when the operating temperature is around -10℃, and the back ground will become darker at high temperature operating.
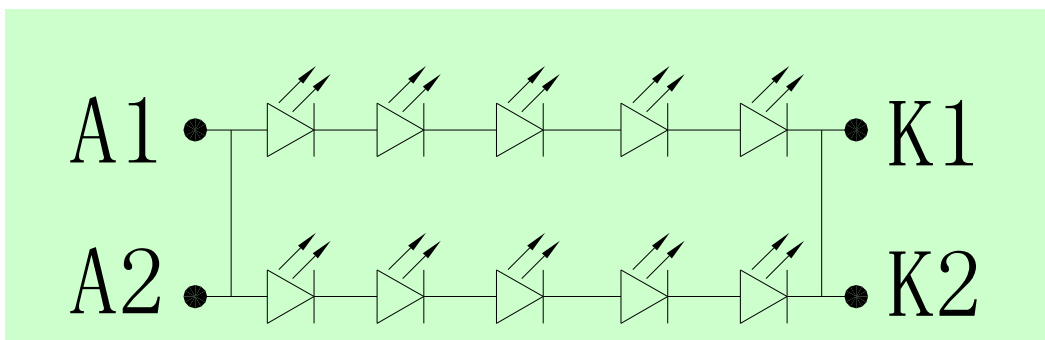
4. DC Characteristics

Item		Symbol	Min.	Typ.	Max.	Unit
Supply Voltage		VCC	3.0	3.3	3.6	V
Logic Low input voltage		V_{IL}	0	-	0.3*VDD	V
Logic High input voltage		V_{IH}	0.7*VDD	-	VDD	V
Logic Low output voltage		V_{OL}	0	-	0.4	V
Logic High output voltage		V_{OH}	VDD-0.4	-	VDD	V
Current Consumption All Black	Logic	I_{CC+} I_{IN}	-	(25)	-	mA
	Analog					

5. Backlight Characteristic

5.1. Backlight Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	Ta=25 ºC, I_F=20mA/LED	14	16	17	V
Forward Current	I_F	Ta=25 ºC, V_F=3.2V/LED	-	40	-	mA
Power dissipation	P_D		-	640	-	mW
Uniformity	Avg		-	80	-	%
Drive method	Constant current					
LED Configuration	10 White LEDs(5 LEDs in one string and 2 groups in parallel)					

5.2. Backlighting circuit

6. Optical Characteristics

6.1. Optical Characteristics

Ta=25ºC, VCC=3.3V, TN LC+ Polarizer

Item		Symbol	Condition	Specification			Unit
				Min.	Typ.	Max.	
Backlight On (Transmissive Mode)	Luminance on TFT(I_f=20mA/LED)	Lv	Normally viewing angle θx = φY =0º	**320**	**400**	-	cd/m²
	Contrast ratio(See 6.3)	CR		400	500	-	
	Response time (See 6.2)	TR		-	20	30	ms
		TF					
	Chromaticity Transmissive (See 6.5) — Red	XR		**0.510**	**0.560**	**0.610**	
		YR		**0.292**	**0.342**	**0.392**	
	Green	XG		**0.248**	**0.298**	**0.348**	
		YG		**0.570**	**0.620**	**0.670**	
	Blue	XB		**0.092**	**0.142**	**0.192**	
		YB		**0.040**	**0.090**	**0.140**	
	White	XW		**0.215**	**0.265**	**0.315**	
		YW		**0.262**	**0.312**	**0.362**	
	Viewing Angle (See 6.4) — Horizontal	θX+	Center CR≥10	60	75	-	Deg.
		θX-		60	75	-	
	Vertical	φY+		60	75	-	
		φY-		40	55	-	
	NTSC Ratio(Gamut)			40	50	-	%

6.2. Definition of Response Time

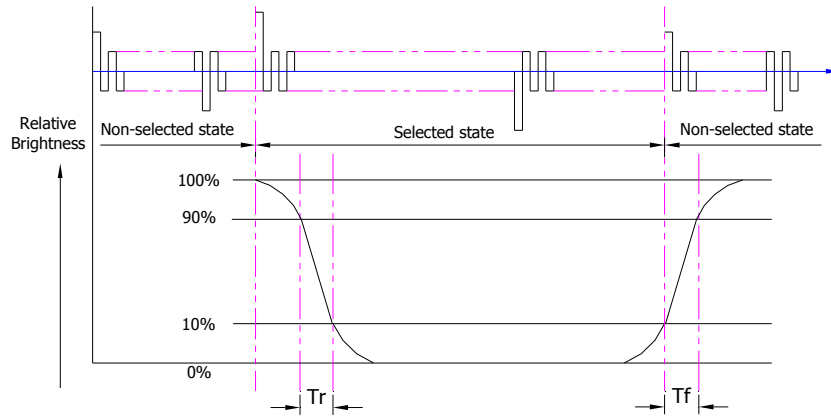### 6.2.1. Normally Black Type (Negative)
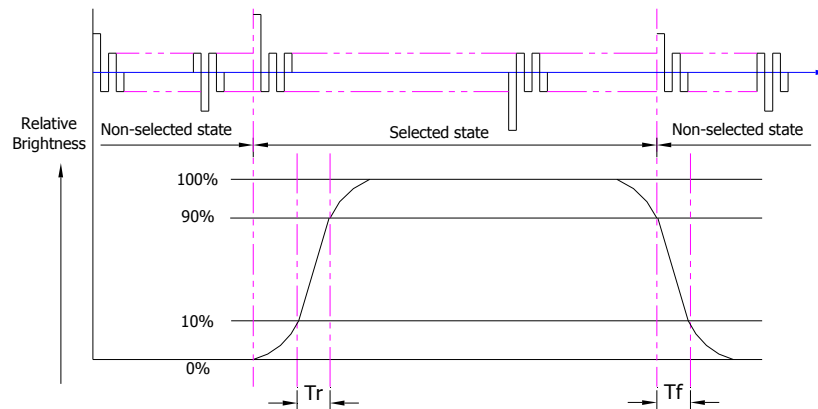
Tr is the time it takes to change form non-selected stage with relative luminance 10% to selected state with relative luminance 90%;

Tf is the time it takes to change from selected state with relative luminance 90% to non-selected state with relative luminance 10%.

Note : Measuring machine: LCD-5100

6.2.2.   Normally White Type (Positive)

Tr is the time it takes to change form non-selected stage with relative luminance 90% to selected state with relative luminance 10%;

Tf is the time it takes to change from selected state with relative luminance 10% to non-selected state with relative luminance 90%;

Note : Measuring machine: LCD-5100 or EQUI

6.3. Definition of Contrast Ratio

Contrast is measured perpendicular to display surface in reflective and transmissive mode.

The measurement condition is:

Measuring Equipment	Eldim or Euivelent
Measuring Point Diameter	3mm//1mm
Measuring Point Location	Active Area centre point
Test pattern	A: All Pixels white
	B: All Pixel black
Contrast setting	Maximum

Definitions: CR (Contrast) = Luminance of White Pixel / Luminance of Black Pixel

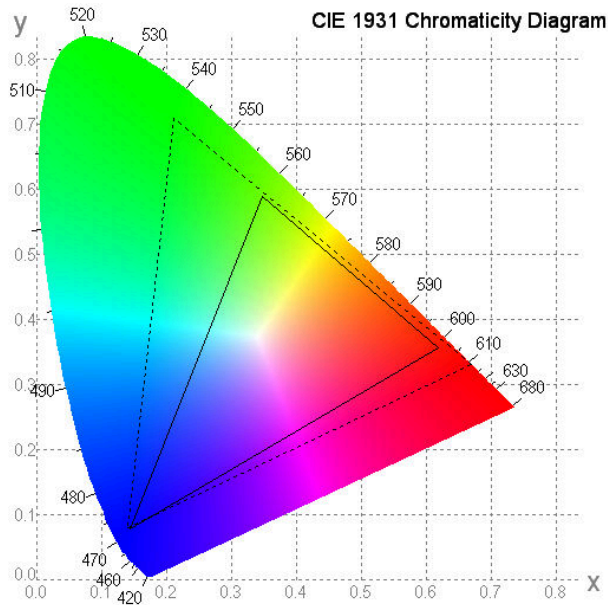## 6.4. Definition of Viewing Angles
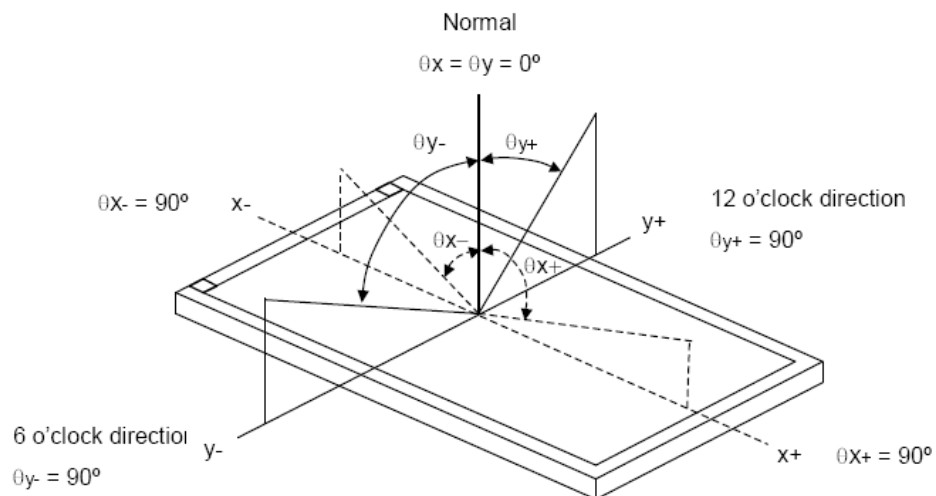
Measuring machine: LCD-5100 or EQUI

6.5. Definition of Color Appearance

R,G,B and W are defined by (x, y) on the IE chromaticity diagram

NTSC=area of RGB triangle/area of NTSC triangleX100%

Measuring picture: Red, Green, Blue and White (Measuring machine: BM-7)
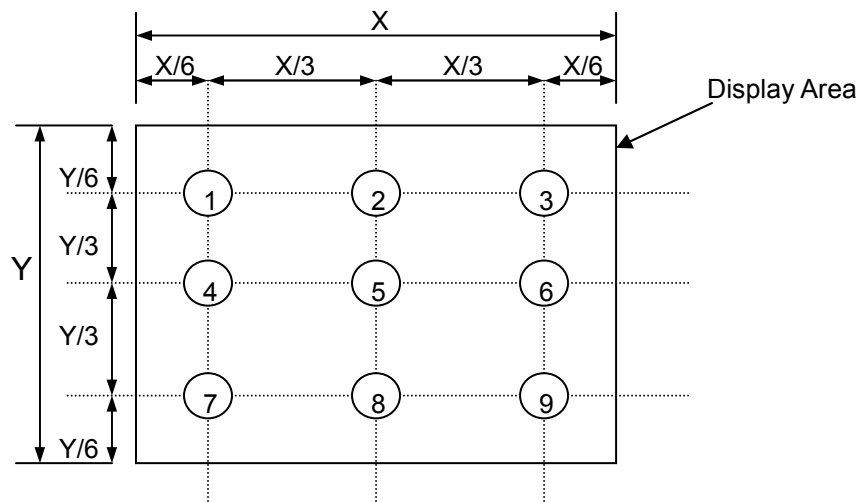

### 6.6. Definition of Surface Luminance, Uniformity and Transmittance

Using the transmissive mode measurement approach, measure the white screen luminance of the display panel and backlight.

6.6.1. Surface Luminance: L_V = average $(L_{P1}:L_{P9})$

6.6.2. Uniformity = Minimal $(L_{P1}:L_{P9})$ / Maximal $(L_{P1}:L_{P9})$ * 100%

6.6.3. Transmittance = L_V on LCD / L_V on Backlight * 100%

Note : Measuring machine: BM-7

## 7. Block Diagram and Power Supply
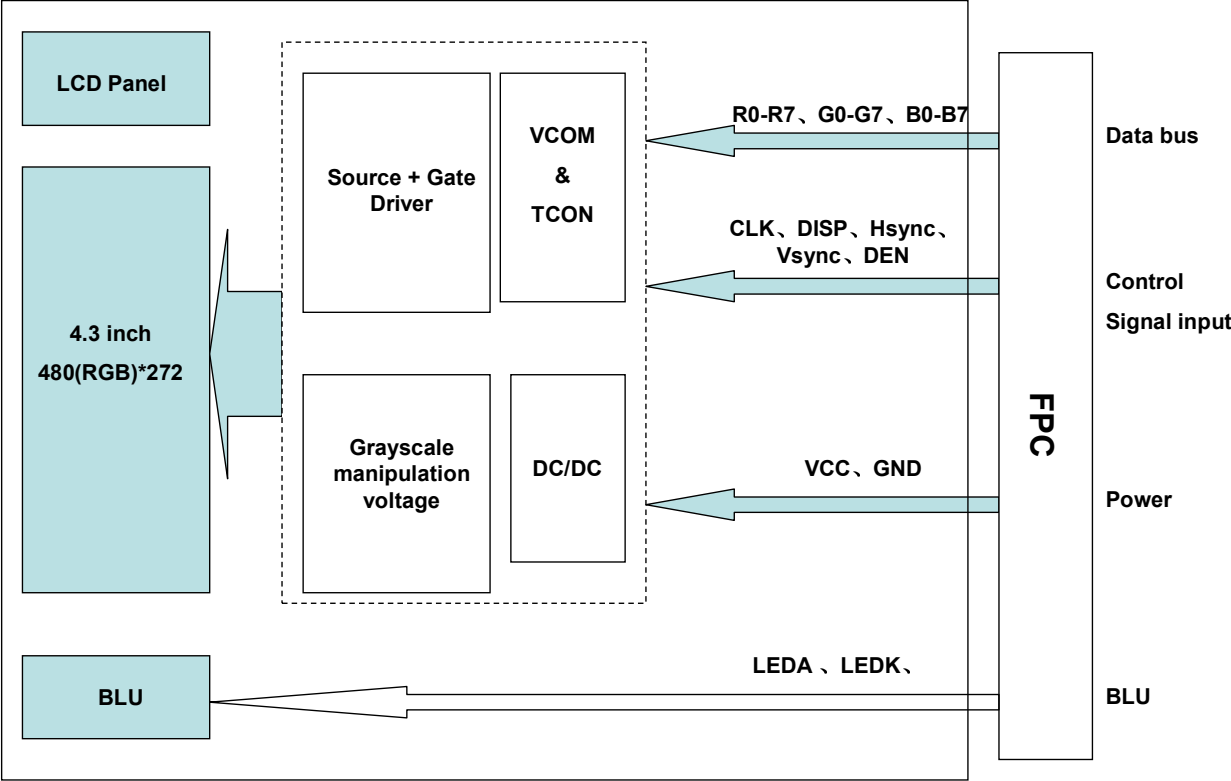
8. Interface Pins Definition

No.	Symbol	Function	Remark
1	LEDK	Backlight Cathode	
2	LEDA	Backlight Anode	
3	GND	Ground	
4	VCC	Power source	
5	R0	Red data signal	
6	R1	Red data signal	
7	R2	Red data signal	
8	R3	Red data signal	
9	R4	Red data signal	
10	R5	Red data signal	
11	R6	Red data signal	
12	R7	Red data signal	
13	G0	Green data signal	
14	G1	Green data signal	
15	G2	Green data signal	
16	G3	Green data signal	
17	G4	Green data signal	
18	G5	Green data signal	
19	G6	Green data signal	
20	G7	Green data signal	
21	B0	Blue data signal	
22	B1	Blue data signal	
23	B2	Blue data signal	
24	B3	Blue data signal	
25	B4	Blue data signal	
26	B5	Blue data signal	
27	B6	Blue data signal	
28	B7	Blue data signal	
29	GND	Ground	
30	CLK	Clock signal to sample each data	
31	DISP	Display on/off signal DISP="H" Display on DISP="L" Display off	
32	Hsync	Horizontal synchronizing signal	
33	Vsync	Vertical synchronizing signal	
34	DEN	Input data enable control.	
35	NC	No connection	
36	GND	Ground	
37-40	NC	No connection	

9. AC Characteristics and RGB Input Timing

9.1. AC Characteristics

Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
System operation timing						
VDD power source slew time	TPOR	-	-	20	ms	From 0V to 99% VDD
GRB pulse width	tRSTW	10	50	-	us	R=10Kohm, C=1uF
Input/ Output timing						
CLK pulse duty	Tcw	40	50	60	%	
Hsync width	Thw	1	-	-	DCLK	
Hsync period	Th	55	60	65	us	
Vsync setup time	Tvst	12	-	-	ns	
Vsync hold time	Tvhd	12	-	-	ns	
Hsync setup time	Thst	12	-	-	ns	
Hsync hold time	Thhd	12	-	-	ns	
Data setup time	Tdsu	12	-	-	ns	
Data hold time	Tdhd	12	-	-	ns	
SD output stable time	Tst	-	-	12	us	Output settled within +20mV Loading = 6.8k+28.2pF.
GD output rise and fall time	Tgst	-	-	6	us	Output settled (5%~95%), Loading = 4.7k+29.8pF

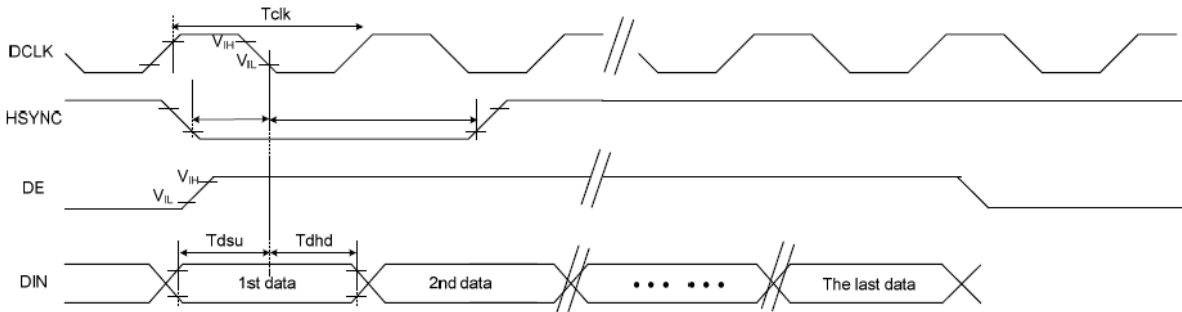|	Symbol	Min.			Unit	
3-wire serial communication						
Delay between CSB and Vsync	Tcv	1			us	
CS input setup time	Ts0	50			ns	
Serial data input setup time	Ts1	50			ns	
CS input hold time	Th0	50			ns	
Serial data input hold time	Th1	50			ns	
SCL pulse high width	Twh1	50			ns	
SCL pulse low width	Twl1	50			ns	
CS pulse high width	Tw2	400			ns	

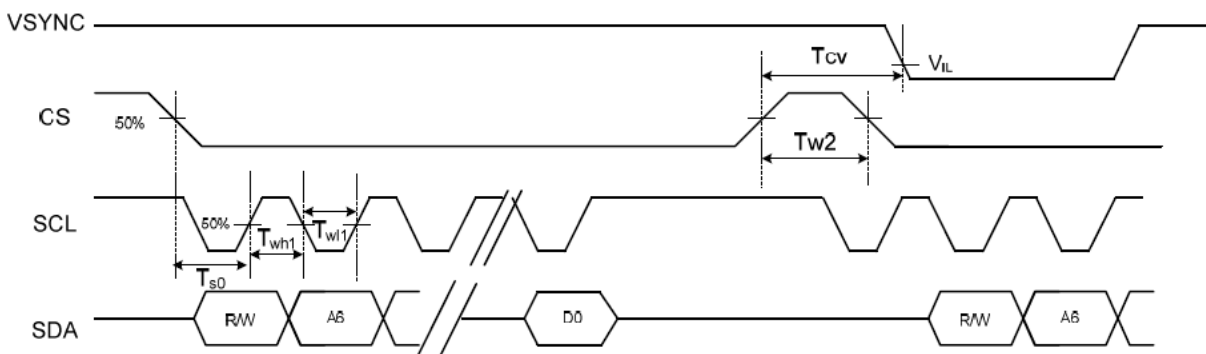## 1) Clock and Data Input Timing Diagram
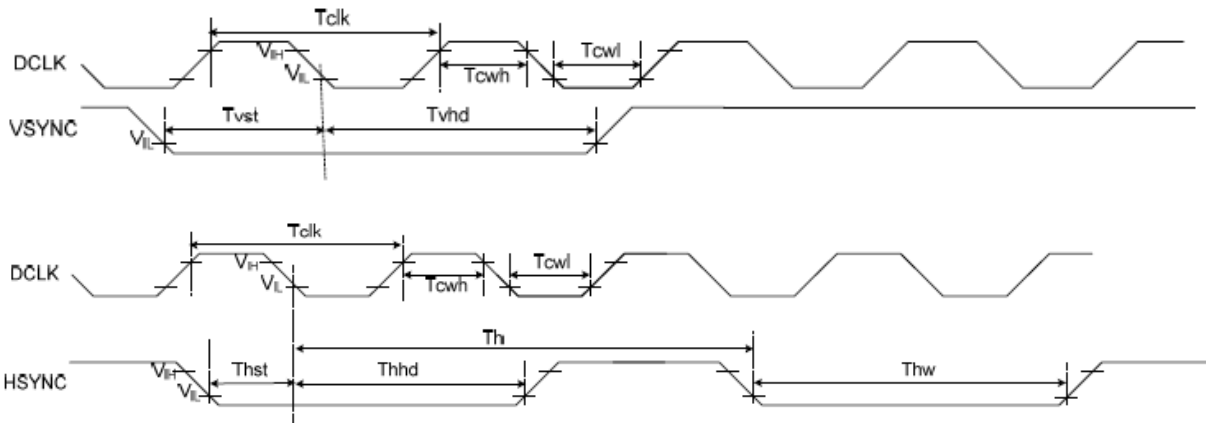
2) SYNC Mode
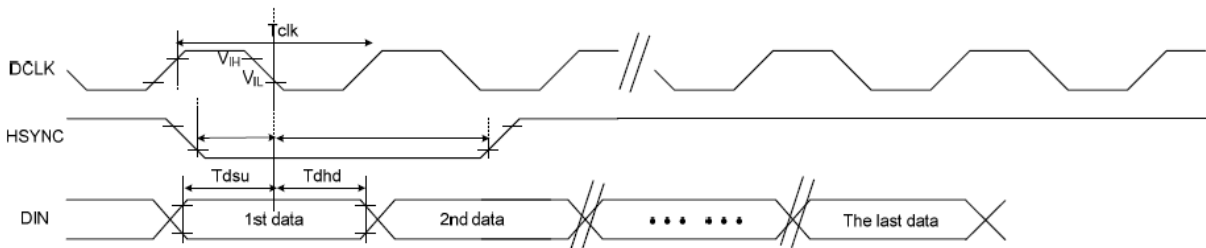
3) SYNC-DE Mode

## 4) 3-Wire Communication Timing Diagram

9.2. RGB input Timing

1) Parallel 24-bit RGB Timing Table

Item		Symbol	Min.	Typ.	Max.	Unit	Remark
DCLK Frequency		Fclk	9	12	15	MHz	
DCLK Period		Tclk	67	83	111	ns	
HSYNC	Period Time	Th	485	525	532	DCLK	
	Display Period	Thdisp		480		DCLK	
	Back Porch	Thbp	3	43	50	DCLK	By H_Blanking setting
	Front Porch	Thfp	2	2	2	DCLK	
	Pulse Width	Thw	1	1	1	DCLK	
VSYNC	Period Time	Tv	275	285	303	H	
	Display Period	Tvdisp		272		H	
	Back Porch	Tvbp	2	12	30	H	By V_Blanking setting
	Front Porch	Tvfp	1	1	1	H	
	Pulse Width	Tvw	1	1	1	H	

2) SYNC Mode Timing
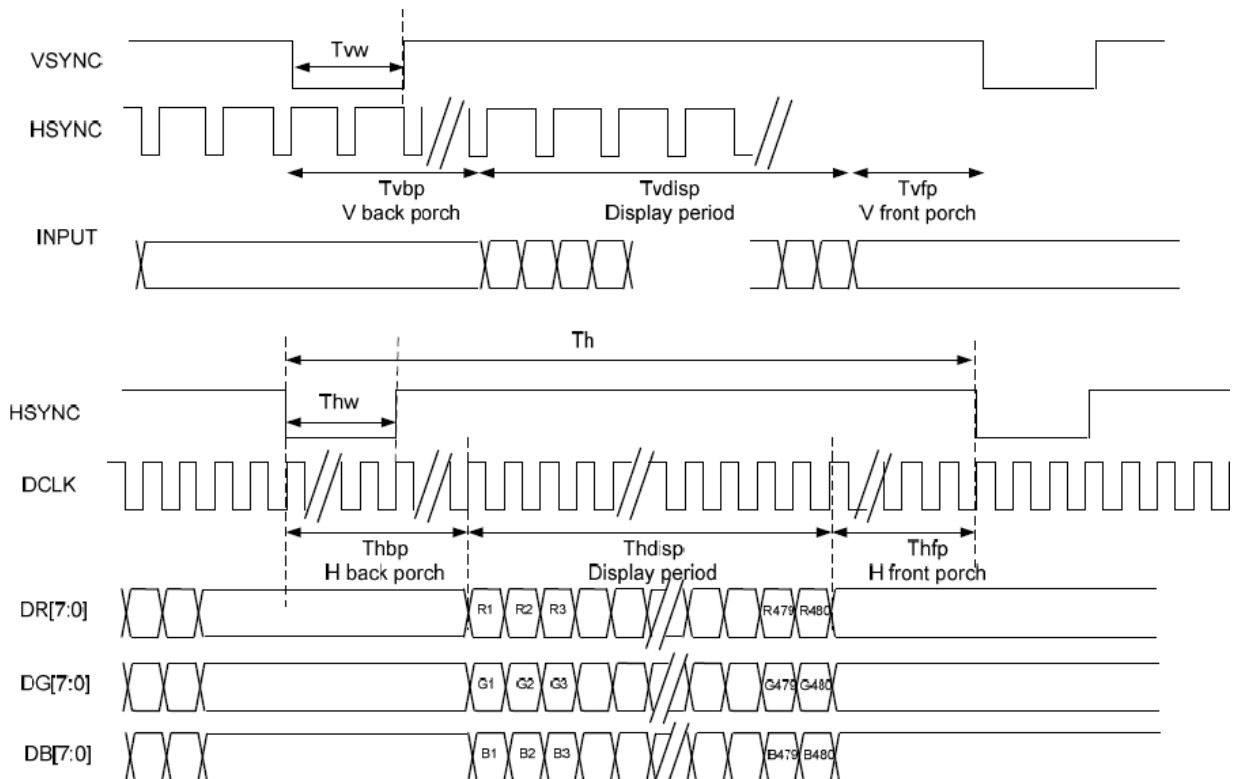
3) SYNC-DE Mode Timing Diagram
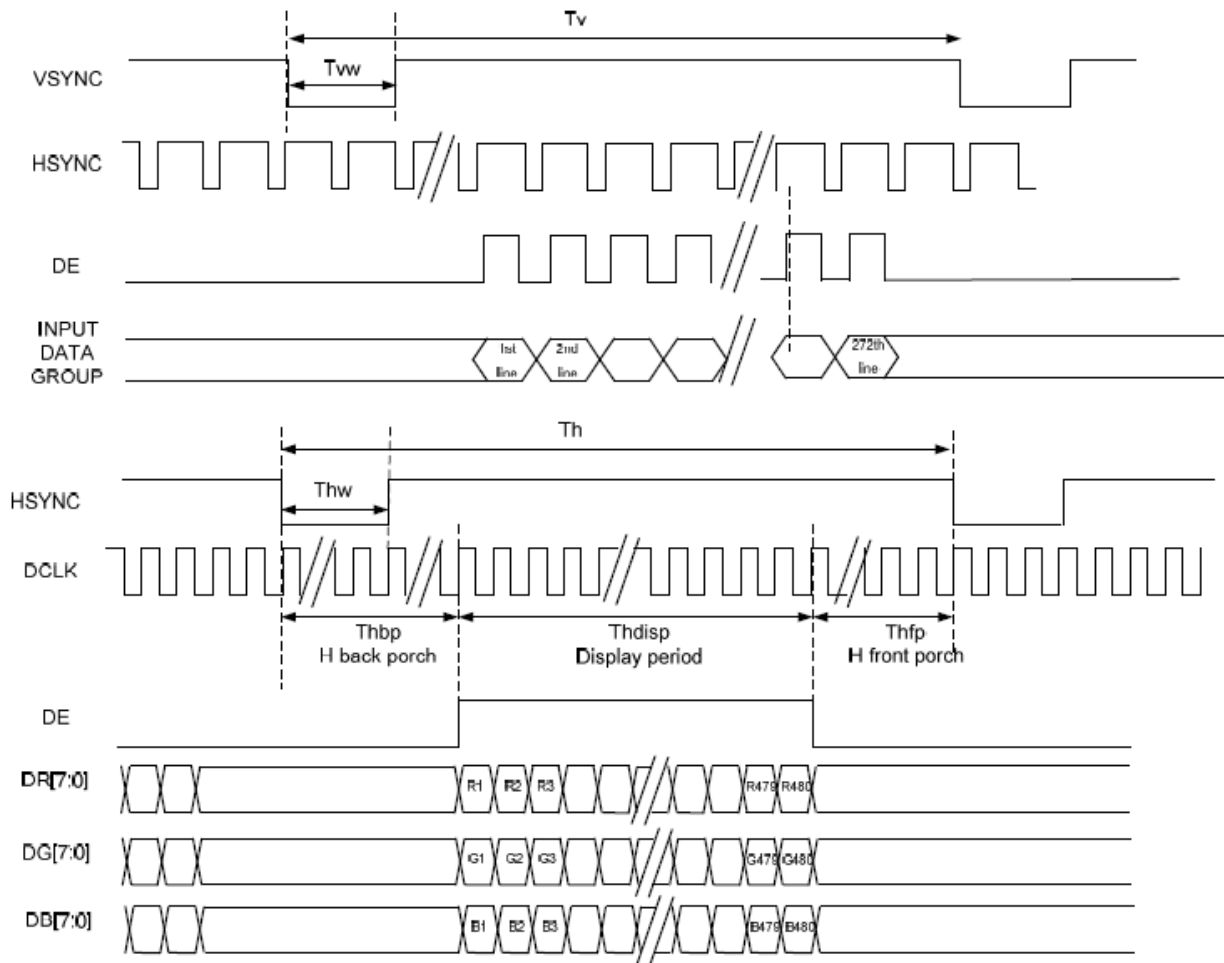
9.3. POWER ON/OFF SEQUENCE

1) Power On Sequence
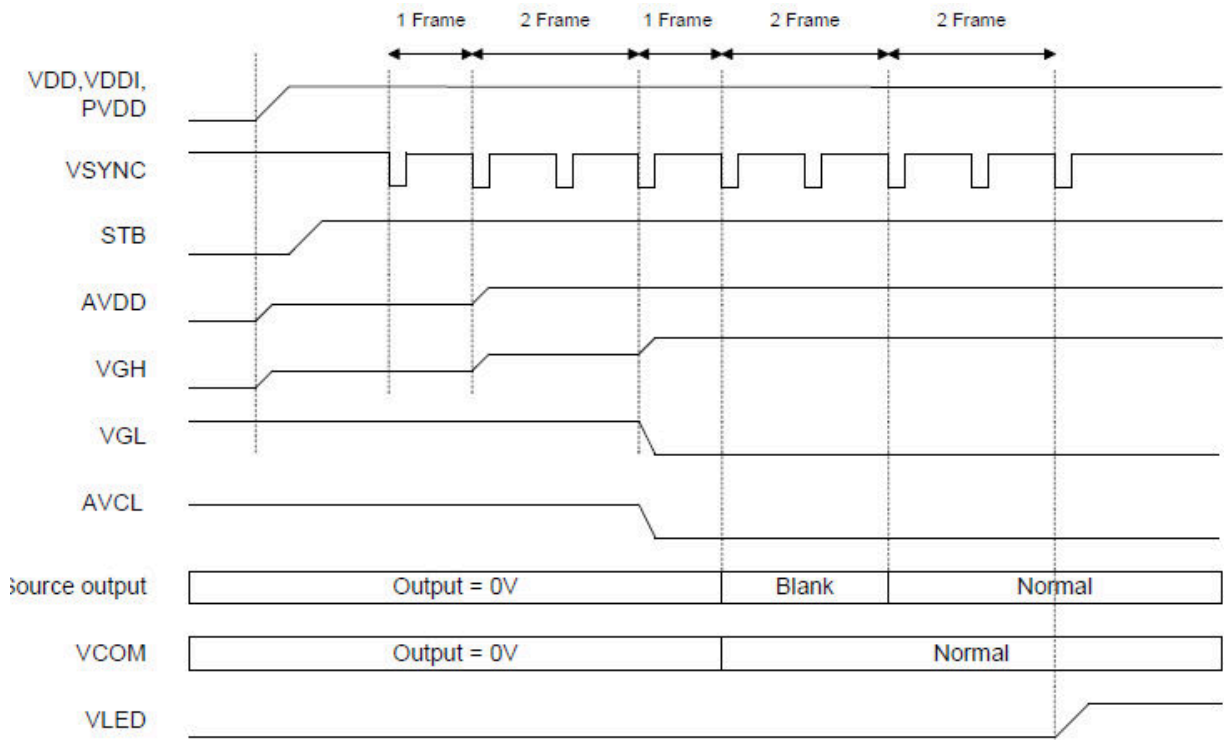
2) Power Off Sequence
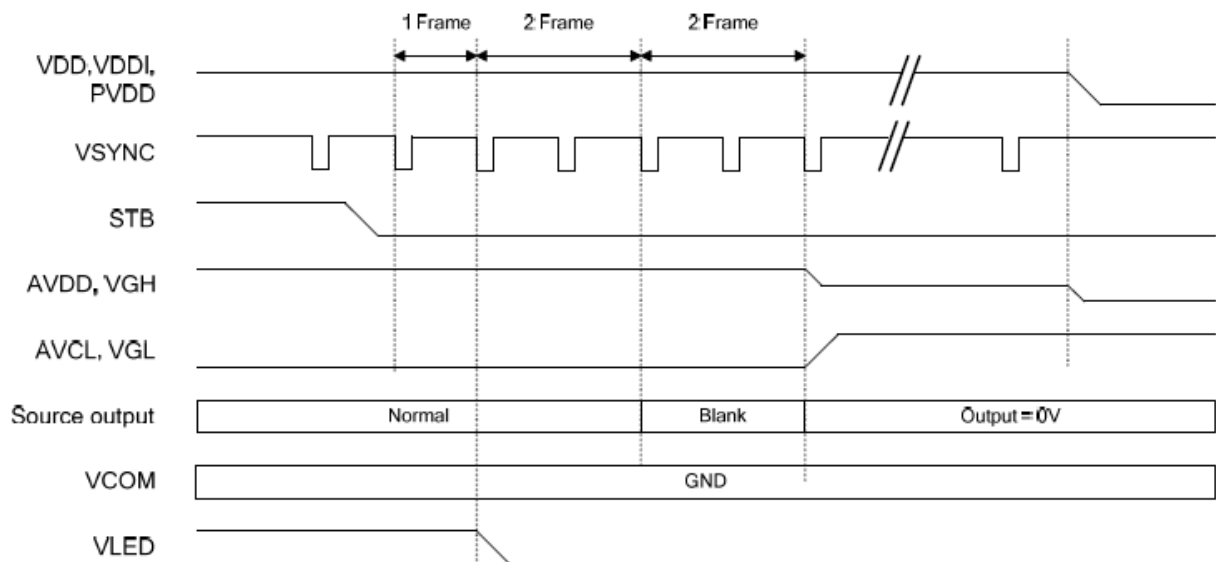
10. Quality Assurance

10.1   Purpose

This standard for Quality Assurance assures the quality of LCD module products supplied to customer.

10.2   Standard for Quality Test

10.2.1 Sampling Plan:

    GB2828.1-2012

    Single sampling, general inspection level II

10.2.2 Sampling Criteria:

    Visual inspection: AQL 1.5%

    Electrical functional: AQL 0.65%.

10.2.3 Reliability Test:

    Detailed requirement refer to Reliability Test Specification.

10.3   Nonconforming Analysis & Disposition

10.3.1 Nonconforming analysis:

    10.3.1.1 Customer should provide overall information of non-conforming sample for their complaints.

    10.3.1.2 After receipt of detailed information from customer, the analysis of nonconforming parts usually should be finished in one week.

    10.3.1.3 If can not finish the analysis on time, customer will be notified with the progress status.

10.3.2 Disposition of nonconforming:

    10.3.2.1 Non-conforming product over PPM level will be replaced.

    10.3.2.2 The cause of non-conformance will be analyzed. Corrective action will be discussed and implemented.

10.4   Agreement Items

Shall negotiate with customer if the following situation occurs:

10.4.1 There is any discrepancy in standard of quality assurance.

10.4.2 Additional requirement to be added in product specification.

10.4.3 Any other special problem.

10.5 Standard of the Product Visual Inspection

10.5.1 Appearance inspection:

    10.5.1.1 The inspection must be under illumination about 1000 – 1500 lx, and the distance of view must be at 30cm ± 2cm.

    10.5.1.2 The viewing angle should be 45° from the vertical line without reflection light or follows customer's viewing angle specifications.

    10.5.1.3 Definition of area: A Zone: Active Area, B Zone: Viewing Area,
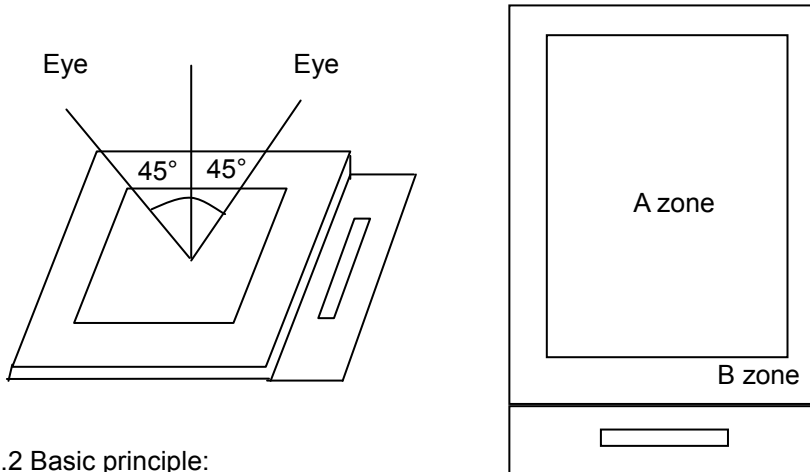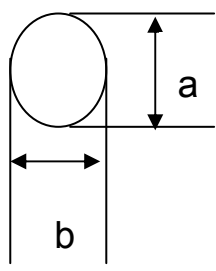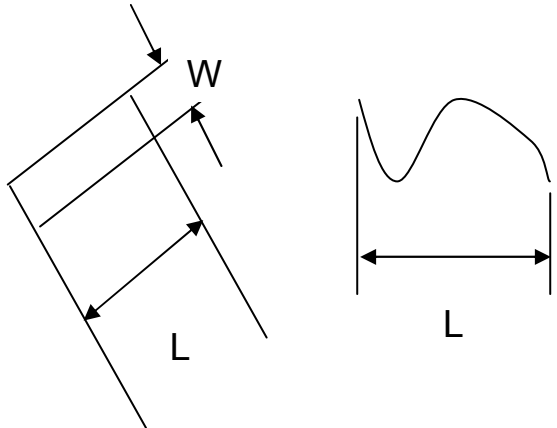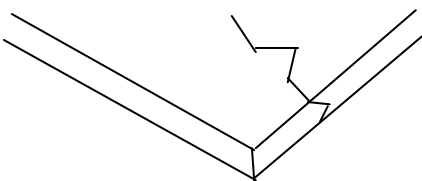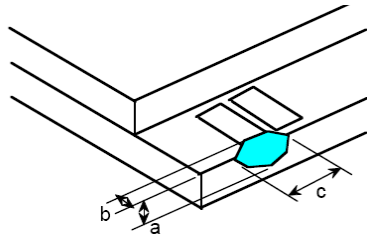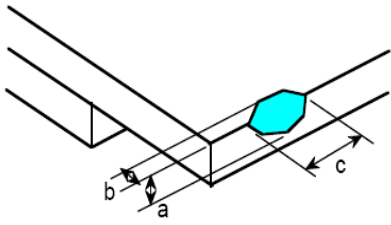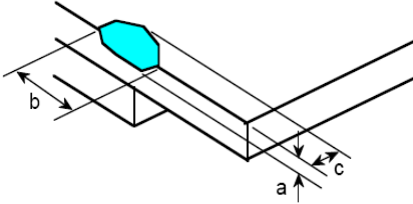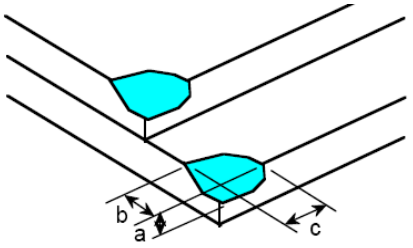
10.5.2 Basic principle:

    10.5.2.1 A set of sample to indicate the limit of acceptable quality level must be discussed by both us and customer when there is any dispute happened.
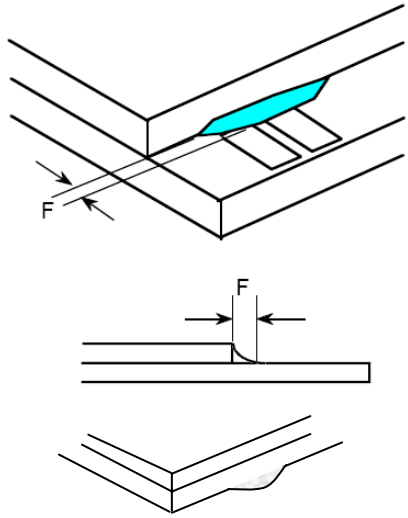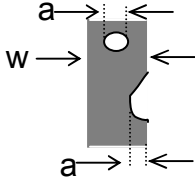
    10.5.2.2 New item must be added on time when it is necessary.

10.6   Inspection Specification

No.	Item	Criteria (Unit: mm)		
01	Black / White spot Foreign material (Round type) Pinholes Stain Particles inside cell. (Minor defect)	 $\varphi = (a + b)/2$	**Size \ Area**	**Acc. Qty**
			$\varphi \leqslant 0.10$	Ignore
			$0.10 < \varphi \leqslant 0.15$	2
			$0.15 < \varphi \leqslant 0.25$	1
			$0.25 < \varphi$	0
			Total	2 no include $\varphi \leqslant 0.10$
		Distance between 2 defects should more than 3mm apart.		

No.	Item	Criteria (Unit: mm)			
02	Electrical Defect (Minor defect)		Display Area	Total	
		Bright dot	0	0	Note1
		Dark dot	$N \leqslant 2$	$N \leqslant 2$	
		Total dot	$N \leqslant 2$	$N \leqslant 2$	
		Mura	Not visible through 5% ND filters.		Note 2
		Remark: 1. Bright dot caused by scratch and foreign object accords to item 1.			

| 03 | Black and White line Scratch Foreign material (Line type) (Minor defect) | |

Length	Width	Acc. Qty
/	W $\leqq$ 0.03	Ignore
L $\leqq$ 2.5	0.03 $<$ W $\leqq$ 0.05	3
L $\leqq$ 2.5	0.05 $<$ W $\leqq$ 0.10	2
/	0.1 $<$ W	0
Total		3

Distance between 2 defects should more than 3mm apart. Scratches not viewable through the back of the display are acceptable.

| 04 | Glass Crack (Minor defect) | |

Crack is potential to enlarge, any type is not allowed.

05	Glass　Chipping Pad Area: (Minor defect)		
		Length and Width	Acc. Qty
		c > 3.0, b< 1.0	1
		c< 3.0, b< 1.0	3
		a<Glass Thickness	

06	Glass　Chipping Rear of Pad Area: (Minor defect)		
		Length and Width	Acc. Qty
		c > 3.0, b< 1.0	1
		c< 3.0, b< 1.0	2
		c< 3.0, b< 0.5	4
		a<Glass Thickness	

07	Glass　Chipping Except Pad Area: (Minor defect)		
		Length and Width	Acc. Qty
		c > 3.0, b< 1.0	1
		c< 3.0, b< 1.0	2
		c< 3.0, b< 0.5	4
		a<Glass Thickness	

08	Glass Corner Chipping: (Minor defect)		
		Length and Width	Acc. Qty
		c < 3.0, b< 3.0	Ignore
		a<Glass Thickness	

09	Glass Burr: (Minor defect) F		<table><tr><th>Length</th><th>Acc. Qty</th></tr><tr><td>F < 1.0</td><td>Ignore</td></tr></table> Glass burr don't affect assemble and module dimension.
10	FPC Defect: (Minor defect) a → w → a →		9.1 Dent, pinhole width a<w/3. (w: circuitry width.) 9.2 Open circuit is unacceptable. 9.3 No oxidation, contamination and distortion.
11	Bubble on Polarizer (Minor defect)	<table><tr><th>Diameter</th><th>Acc. Qty</th></tr><tr><td>φ≤0.20</td><td>Ignore</td></tr><tr><td>0.20 <φ≤0.30</td><td>4</td></tr><tr><td>0.30 < φ</td><td>None</td></tr></table>	
12	Dent on Polarizer (Minor defect)	<table><tr><th>Diameter</th><th>Acc. Qty</th></tr><tr><td>φ≤0.20</td><td>Ignore</td></tr><tr><td>0.20 <φ≤0.30</td><td>4</td></tr><tr><td>0.30 < φ</td><td>None</td></tr></table>	
13	Bezel	12.1 No rust, distortion on the Bezel. 12.2 No visible fingerprints, stains or other contamination.	

14	Touch Panel	D: Diameter W: width L: length 13.1 Spot: D<0.25 is acceptable 　　　　　　0.25≤D≤0.4 2dots are acceptable and the distance between defects should more than 10 mm. 　　　　　D>0.4 is unacceptable 13.2 Dent: D>0.40 is unacceptable 13.3 Scratch: W≤0.03, L≤10 is acceptable, 　　　　　0.03<W≤0.10, L≤10 is acceptable Distance between 2 defects should more than 10 mm. 　　　　　　W>0.10 is unacceptable.
15	PCB	14.1 No distortion or contamination on PCB terminals. 14.2 All components on PCB must same as documented on the BOM/component layout. 14.3 Follow IPC-A-600F.
16	Soldering	Follow IPC-A-610C standard
17	Electrical Defect (Major defect)	The below defects must be rejected. 16.1 Missing vertical / horizontal segment, 16.2 Abnormal Display. 16.3 No function or no display. 16.4 Current exceeds product specifications. 16.5 LCD viewing angle defect. 16.6 No Backlight. 16.7 Dark Backlight. 16.8 Touch Panel no function. 16.9 Dark Dot –one Allowed. 16.10 Bright Dot – one Allowed. Remark: 1. A pixel defect is acceptable if one color is none functional and causes a bright dot. The display may have one case where one color is out and cause a dark dot. 2. Bright dot caused by scratch and foreign object accords to item 1.

Remark: LCD Panel Broken shall be rejected. Defect out of LCD viewing area is acceptable.

10.7 Classification of Defects

10.7.1 Visual defects (Except no / wrong label) are treated as minor defect and electrical defect is major.

10.7.2 Two minor defects are equal to one major in lot sampling inspection.

10.8 Identification/marking criteria

Any unit with illegible / wrong /double or no marking/ label shall be rejected.

10.9 Packing

10.9.1 There should be no damage of the outside carton box, each packaging box should have one identical label.

10.9.2 Modules inside package box should have compliant mark.

10.9.3 All direct package materials shall offer ESD protection

Note1: Bright dot is defined as the defective area of the dot is larger than 50% of one sub-pixel area.
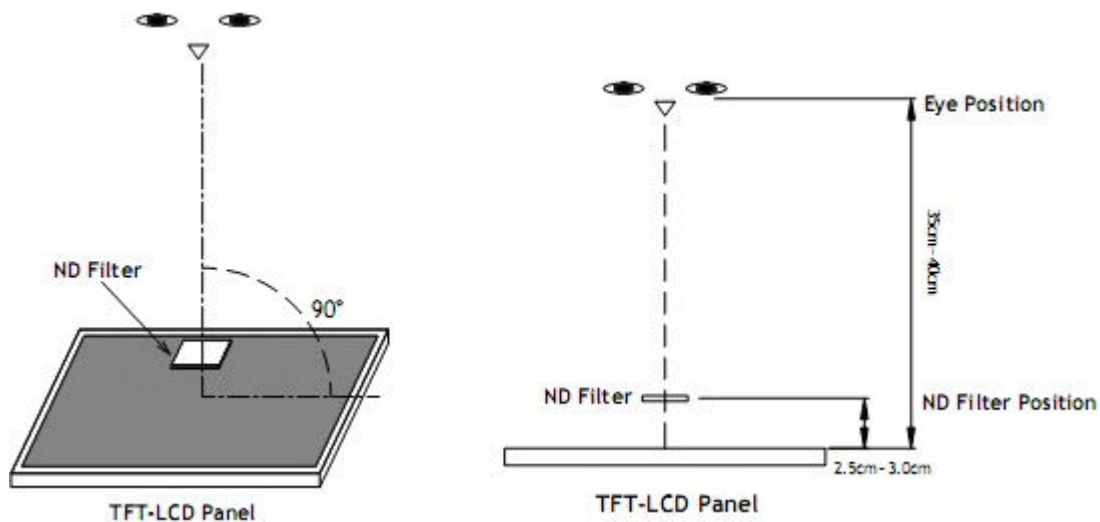
Bright dot: The bright dot size defect at black display pattern. It can be recognized by 2% transparency of filter when the distance between eyes and panel is 350mm±50mm.

Dark dot: Cyan, Magenta or Yellow dot size defect at white display pattern. It can be recognized by 5% transparency of filter when the distance between eyes and panel is 350mm±50mm.

Note2: Mura on display which appears darker / brighter against background brightness on parts of display area.

11. Reliability Specification

No	Item	Condition	Quantity	Criteria
1	High Temperature Operating	**70℃, 96Hrs**	2	GB/T2423.2 -2008
2	Low Temperature Operating	**-20℃, 96Hrs**	2	GB/T2423.1 -2008
3	High Humidity	**50℃, 90%RH, 96Hrs**	2	GB/T2423.3 -2006
4	High Temperature Storage	**80℃, 96Hrs**	2	GB/T2423.2 -2008
5	Low Temperature Storage	**-30℃, 96Hrs**	2	GB/T2423.1 -2008
6	Thermal Cycling Test	-20℃, 60min~70℃, 60min, 20 cycles.	2	GB/T2423.22 -2012
7	Packing vibration	Frequency range:10Hz~50Hz Acceleration of gravity:5G X, Y, Z 30 min for each direction.	2	GB/T5170.14 -2009
8	Drop Test (Packaged)	Height:80 cm,1 corner, 3 edges, 6 surfaces.	2	GB/T2423.8 -1995

Note1.　No defection cosmetic and operational function allowable.

Note2.　Total current Consumption should be below double of initial value

12. Precautions and Warranty

12.1 Safety

12.1.1 The liquid crystal in the LCD is poisonous. Do not put it in your mouth. If the liquid crystal touches your skin or clothes, wash it off immediately using soap and water.

12.1..2 Since the liquid crystal cells are made of glass, do not apply strong impact on them. Handle with care.

12.2 Handling

12.2.1 Reverse and use within ratings in order to keep performance and prevent damage.

12.2.2 Do not wipe the polarizer with dry cloth, as it might cause scratch. If the surface of the LCD needs to be cleaned, wipe it swiftly with cotton or other soft cloth soaked with petroleum IPA, do not use other chemicals.

12.3 Storage

12.3.1 Do not store the LCD module beyond the specified temperature ranges.

12.4 Metal Pin (Apply to Products with Metal Pins)

12.4.1 Pins of LCD and Backlight

12.4.1.1 Solder tip can touch and press on the tip of Pin LEAD during the soldering

12.4.1.2 Recommended Soldering Conditions

Solder Type: Sn96.3~94-Ag3.3~4.3-Cu0.4~1.1

Maximum Solder Temperature: 370℃

Maximum Solder Time: 3s at the maximum temperature

Recommended Soldering Temp: 350±20℃

Typical Soldering Time: ≤3s

12.4.1.3 Solder Wetting

Solder   Pin Lead   Solder   Pin Lead

Recommended   Not Recommended
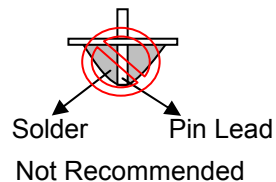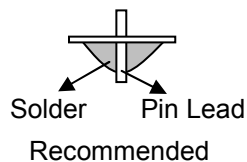
12.4.2 Pins of EL

12.4.2.1 Solder tip can touch and press on the tip of EL leads during soldering.

12.4.2.2 No Solder Paste on the soldering pad on the motherboard is recommended.

12.4.2.3 Recommended Soldering Conditions

Solder type: Nippon Alimit Leadfree SR-34, size 0.5mm

Recommended Solder Temperature: 270～290℃

Typical Soldering Time: ≤2s

Minimum solder distance from EL lamp (body):2.0mm

12.4.1.4 No horizontal press on the EL leads during soldering.

12.4.1.5 180° bend EL leads three times is not allowed.

12.4.1.6 Solder Wetting
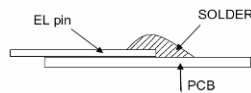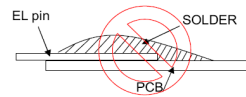
Recommended   Not Recommended

12.4.1.7 The type of the solder iron:
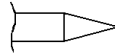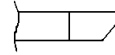
Recommended   Not Recommended

12.4.1.8 Solder Pad
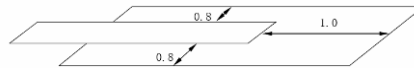
12.5   Operation

12.5.1   Do not drive LCD with DC voltage

12.5.2   Response time will increase below lower temperature

12.5.3   Display may change color with different temperature

12.5.4   Mechanical disturbance during operation, such as pressing on the display area, may cause the segments to appear "fractured".

12.6   Static Electricity

12.6.1   CMOS LSIs are equipped in this unit, so care must be taken to avoid the electro-static charge, by ground human body, etc.

12.6.2 The normal static prevention measures should be observed for work clothes and benches.

12.6.3 The module should be kept into anti-static bags or other containers resistant to static for storage.

12.7   Limited Warranty

12.7.1 Our warranty liability is limited to repair and/or replacement. We will not be responsible for any consequential loss.

12.7.2 If possible, we suggest customer to use up all modules in six months. If the module storage time over twelve months, we suggest that recheck it before the module be used

12.7.3 After the product shipped, any product quality issues must be feedback within three months, otherwise, we will not be responsible for the subsequent or consequential events.

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13. Packaging

TBD

T043480272-A8TMN-002
Rev:1.1

TFT 4.3"
480(RGB) X 272

RGB

105.5±0.2
98.7±0.2/Bezel Opening
95.04/LCD A.A
(52.75)
3.4±0.2
(5.23)
2.5±0.2
(4.18)
67.2±0.2
57.5±0.2/Bezel Opening
53.86/LCD A.A
(31.11)
2.95±0.2

Tear Tape

Single area
Insulation Tape
XL,XR
yu,yo

45.67±0.5
42.44±0.3
3.5±0.5
20.35±0.2
W=0.35
1   40
0.5±0.1
20.5±0.1
P=0.5*39=19.5
18.75±0.3
46.5±0.3

Contact side
Stiffener
0.3±0.05

UL and E-Number

6±0.5
Single Area
PI Stiffer

NOTES:
1. Display size:4.3"TFT
2. Viewing direction:6 O'CLOCK
3. Gary scale inversion direction:12 O'CLOCK
4. Display mode:Transmissive/Normal White/Anti-glare
5. Operation temperature:-20°C~+70°C
6. Storage temperature:-30°C~+80°C
7. Driver IC:ST7282T2
8. Power supply voltage:3.3V
7. Backlight :White(10 LED)/16(TYP)V/40mA
8. Brighness: 400(TYP)cd/m2
9. ROHS must be complied
* Unspecification tolerance are ±0.2mm

B/L CIRCUIT DIAGRAM

A1 ――――――K1
A2 ――――――K2

Pin assignment	
PIN	SYMBOL
1	LEDK
2	LEDA
3	GND
4	VCC
5	R0
6	R1
7	R2
8	R3
9	R4
10	R5
11	R6
12	R7
13	G0
14	G1
15	G2
16	G3
17	G4
18	G5
19	G6
20	G7
21	B0
22	B1
23	B2
24	B3
25	B4
26	B5
27	B6
28	B7
29	GND
30	CLK
31	DISP
32	Hsync
33	Vsync
34	DEN
35	NC
36	GND
37	NC(XR)
38	NC(YD)
39	NC(XL)
40	NC(YU)

REV	REVISION RECORD	SIGN	DATE
A	First Issue		

	VERSION	DATE	MODEL NAME:	T043480272-A8TMN-002
	A	2016.10.21		
SCALE	NO.	UNIT	TITLE:	Outline
	1/1	mm		
APPROVED	CHECKED	DRAWN	FILE NAME:	T043480272-A8TMN-002_A