晶采光電科技股份有限公司
AMPIRE CO., LTD.

/SIMPLEPLUS Touch Displays

SPECIFICATIONS FOR LCD MODULE

CUSTOMER	
CUSTOMER PART NO.	
AMPIRE PART NO.	AMA-070A03-DI2511-G010
APPROVED BY	
DATE	

☐Approved For Specifications
☐ Approved For Specifications & Sample

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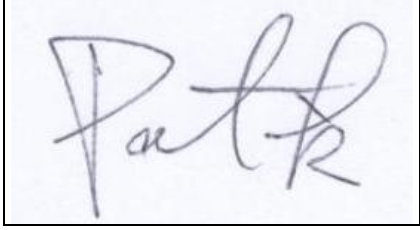
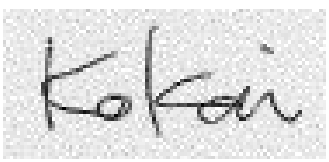
		

RECORD OF REVISION

Revision Date	Page	Contents	Editor
2018/2/12	--	New Release	Emil

1. Features

7 inch Amorphous-TFT-LCD (Thin Film Transistor Liquid Crystal Display) module. This module is composed of a 7” TFT-LCD panel, LED backlight, LED driver unit, power circuit unit and pcap touch screen.

(1) Construction: 7” a-Si TFT active matrix, White LED Backlight and power & LED driver.
(2) Resolution (pixel): 1024(R.G.B) X600
(3) Number of the Colors : 16M colors (R , G , B 6 bit digital each)
(4) LCD type : Transmissive , normally White
(5) Interface: LVDS interface 6bit (default), 8bit by jumper setting.
(6) Power Supply Voltage: 3.3V for logic voltage, 5V or 12V for LED driver circuit.
(7) Viewing Direction: 6 O’clock (Gray Inversion)
(8) PCAP touch screen with ILI2511 touch controller (IIC).

2. PHYSICAL SPECIFICATIONS

Item	Specifications	unit
LCD size	7 inch (Diagonal)	
Resolution	1024 x 3(RGB) x 600	dot
Dot pitch	0.15(W) x 0.15(H)	mm
Active area	153.6(W) x 90.0(H)	mm
Color arrangement	RGB-stripe	
interface	LVDS	
Brightness	425	cd/m^2

3. ABSOLUTE MAX. RATINGS

Item	Symbol	Values		UNIT	Note
		Min.	Max.		
Power voltage	VDD	-0.3	4.2	V	
	VLED	-0.3	14		
Operation temperature	TOP	-20	70	℃	
Storage temperature	TST	-30	80	℃	

The following values are maximum operation conditions , If exceeded , it may cause faulty operation or damage

.

4. ELECTRICAL CHARACTERISTICS

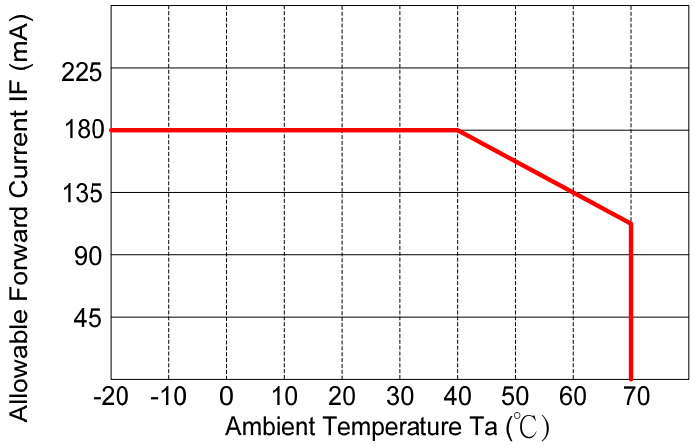
4-1 Typical Operation Conditions

Item	Symbol	Values			Unit	Remark
		MIN	TYP	MAX		
Power Voltage	V_{DD}	3.0	3.3	3.6	V	Note 1,2
Power Consumption	I_{DD}	--	180	--	mA	Black pattern

4-2 LED Driving Conditions

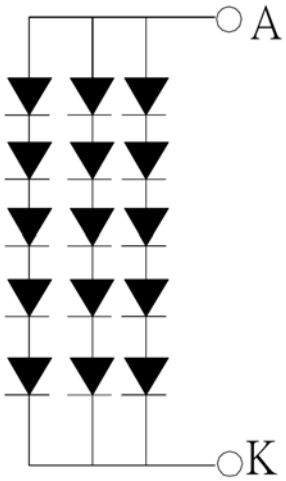
Item	Symbol	Values			Unit	Note
		Min.	Typ.	Max.		
LED Driver Power Voltage	V_{LED}	5	--	12	V	
LED Driver Current Consumption	I_{LED}	--	800	--	mA	VLED=5V ADJ=3.3V (duty 100%)
		--	340	--	mA	VLED=12V ADJ=3.3V (duty 100%
ADJ signal frequency	f_{PWM}	5	25	100K	Hz	
ADJ signal logic level High	V_{ADJ_H}	1.2V		VLED	V	Note(3)
ADJ signal logic level Low	V_{ADJ_L}	0	-	0.4	V	Note(3)
LED voltage	VAK	14	--	18	V	
LED forward Current	IAK	--	180	--	mA	Ta=25℃ Note(1)
LED life time	--	--	30,000	--	Hr	Note(2)

Note (1) The constant current source is needed for white LED back-light driving.
When LCM is operated over 60 deg.C ambient temperature, the I_{LED} of the LED back-light should be adjusted to 135mA.



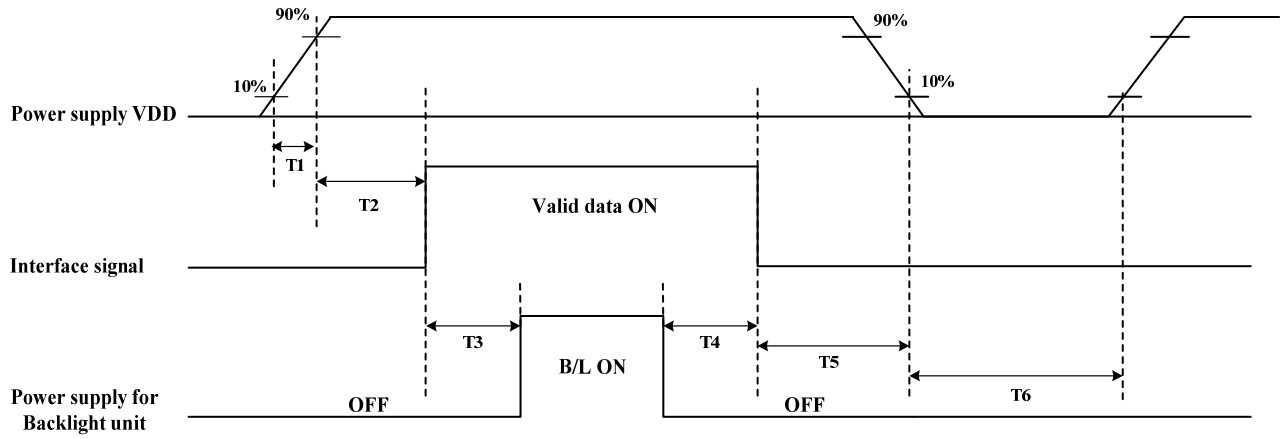
Note (2) Brightness to be decreased to 50% of the initial value(Ta=25℃).

Note (3) VLEDADJ is PWM signal input. It is for brightness control.
There are 3 Groups LED shown as below , VAK =16.5V , IAK =180mA.



4-3 Power Sequence

VDD power and LED on/off sequence are as follows. Interface signals are also shown in the chart. Signal shall be Hi-Z state or low level when VDD is off.



Parameter	SPEC.			Unit
	Min.	Typ.	Max.	
T1	1	-	2	[ms]
T2	0	60	100	[ms]
T3	200	-	-	[ms]
T4	200	-	-	[ms]
T5	1	-	-	[ms]
T6	1000	-	-	[ms]

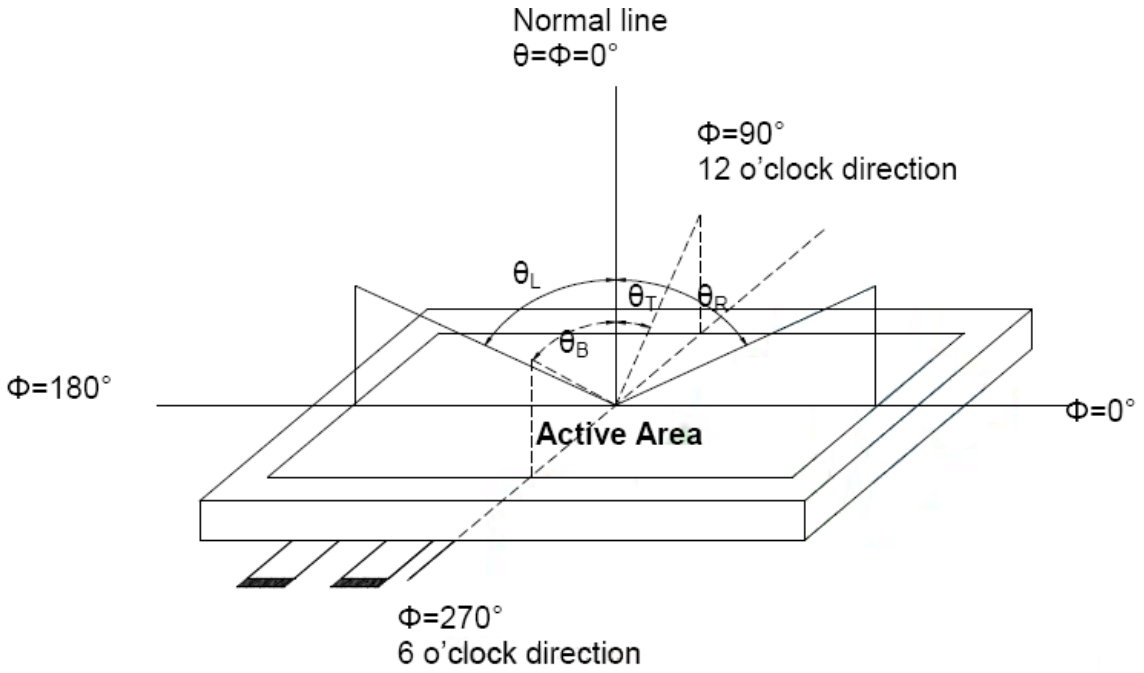
5. Optical Specifications

Item	Symbol	Condition	Values			Unit	Note
			Min.	Typ.	Max.		
Viewing angle (CR≧10)	θL	Φ = 180° (9 o'clock)	65	75	--	degree	Note1
	θR	Φ = 0° (3 o'clock)	65	75	--		
	θT	Φ = 90° (12 o'clock)	65	70	--		
	θB	Φ = 270° (6 o'clock)	65	75	--		
Response time	TON	Normal θ=Φ=0°	--	20	30	msec	Note3
	TOFF		--	20	30	msec	
Contrast ratio	CR		500	700	--	--	Note4
Color chromaticity	WX		0.249	0.299	0.349	--	Note5 Note6
	WY		0.273	0.323	0.373	--	
Luminance	L		340	425	--	cd/m^2	Note6
Transmittance	Tr		--	3.5	--	%	

Test Conditions:

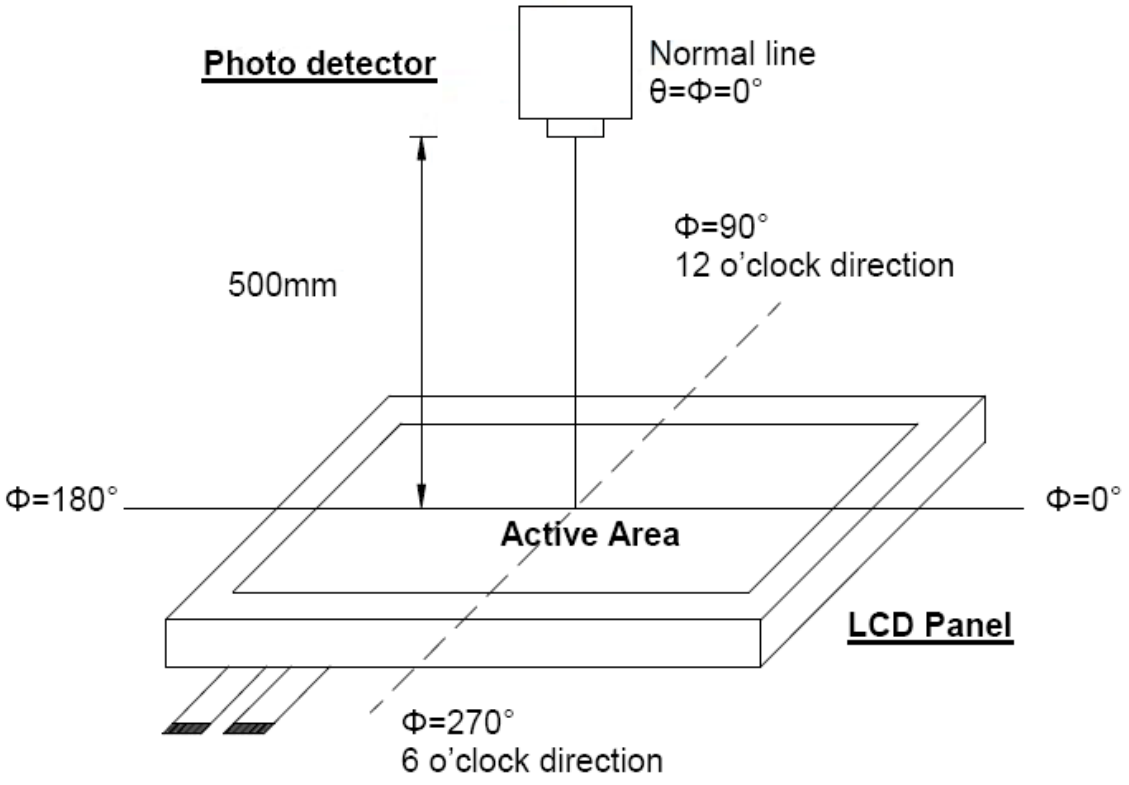
1. VLED = 12V, I_{AK} = 180mA (Backlight current), the ambient temperature is 25℃.
2. The test systems refer to Note 2.

Note 1 : Definition of viewing angle range



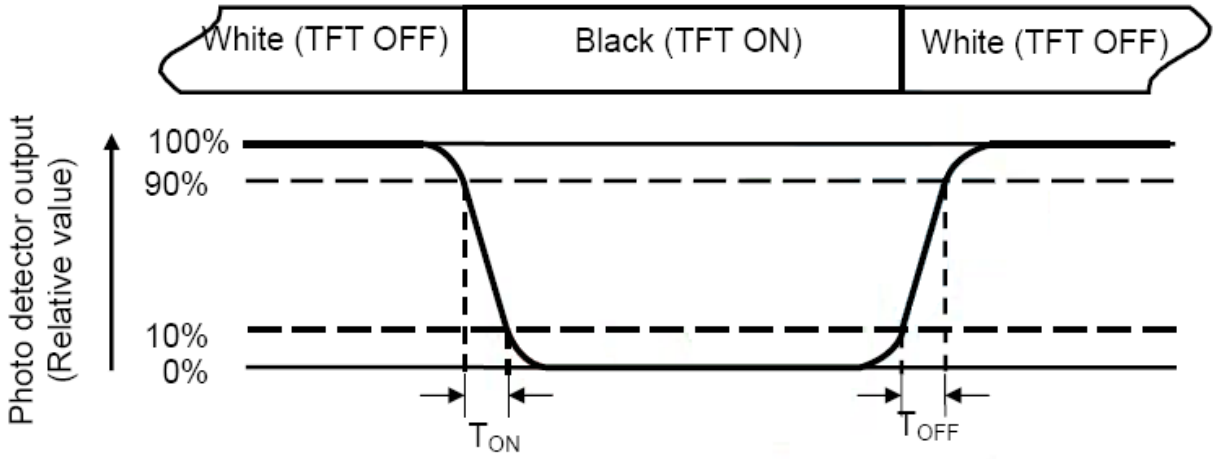
Note 2 : Definition of optical measurement system.

The optical characteristics should be measured in dark room. After 30 minutes operation, the optical properties are measured at the center point of the LCD screen. (Response time is measured by Photo detector TOPCON BM-7, other items are measured by BM-5A/Field of view : 1° / Height : 500mm.)



Note 3 : Definition of Response time

The response time is defined as the LCD optical switching time interval between “White” state and “Black” state. Rise time (T_{ON}) is the time between photo detector output intensity changed from 90% to 10%. And fall time (T_{OFF}) is the time between photo detector output intensity changed from 10% to 90%.



Note 4 : Definition of contrast ratio

$$\text{Contrast ratio (CR)} = \frac{\text{Luminance measured when LCD on the “White” state}}{\text{Luminance measured when LCD on the “Black” state}}$$

Note 5 : Definition of color chromaticity (CIE1931)

Color coordinated measured at center point of LCD.

Note 6 : All input terminals LCD panel must be ground when measuring the center area of the panel.

6. INTERFACE

CN2

Pin No.	Symbol	I/O	Description	Note
1	VDD	P	Power Voltage for Logic: 3.3V	
2	VDD	P	Power Voltage for Logic: 3.3V	
3	GND	P	Ground	
4	GND	P	Ground	
5	IN0-	I	- LVDS differential data input	
6	IN0+	I	+ LVDS differential data input	
7	GND	P	Ground	
8	IN1-	I	- LVDS differential data input	
9	IN1+	I	+ LVDS differential data input	
10	GND	P	Ground	
11	IN2-	I	- LVDS differential data input	
12	IN2+	I	+ LVDS differential data input	
13	GND	P	Ground	
14	CLK-	I	- LVDS differential data input	
15	CLK+	I	+ LVDS differential data input	
16	GND	P	Ground	
17	IN3-	I	- LVDS differential data input	
18	IN3+	I	+ LVDS differential data input	
19	VLED	P	Power supply for backlight: 5V OR 12V	
20	ADJ	I	LED PWM signal	

I : input, O : output, P : power

CN3

Pin No.	Symbol	I/O	Description	Note
1	VLED	P	Power supply for backlight: 5V OR 12V	
2	GND	P	Ground	
3	NC		No Connect	
4	ADJ	P	LED PWM signal	
5	NA		No Connect	

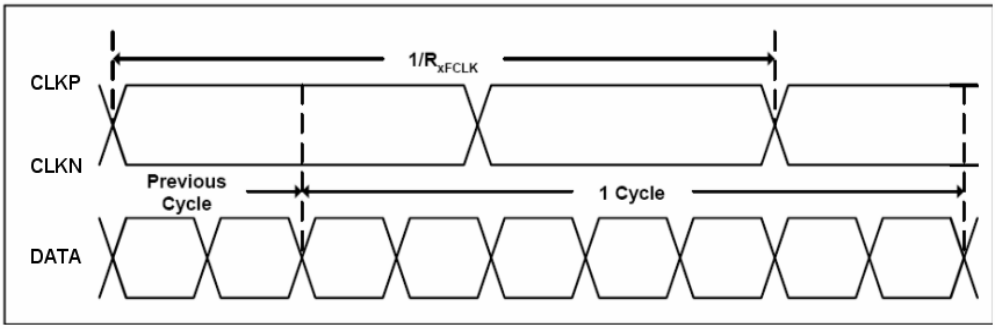
NOTE :
(1) ADJ is PWM signal input. It is for brightness control.

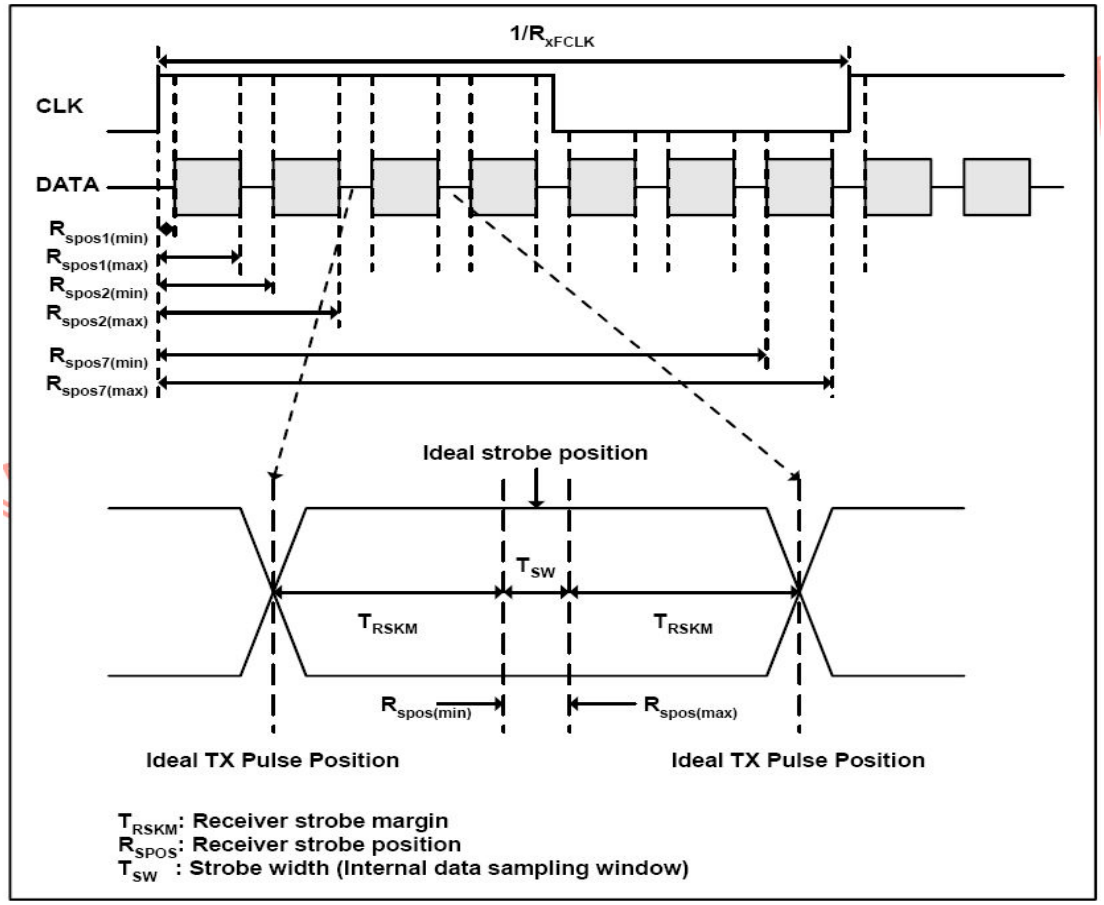
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
ADJ signal frequency	f_{PWM}	5	25	100	KHz
ADJ signal logic level High	VIH	1.2V	--	VLED	V
ADJ signal logic level Low	VIL	0	--	0.4	V

7. TIMING CHARACTERISTICS

7-1 AC Electrical Characteristics

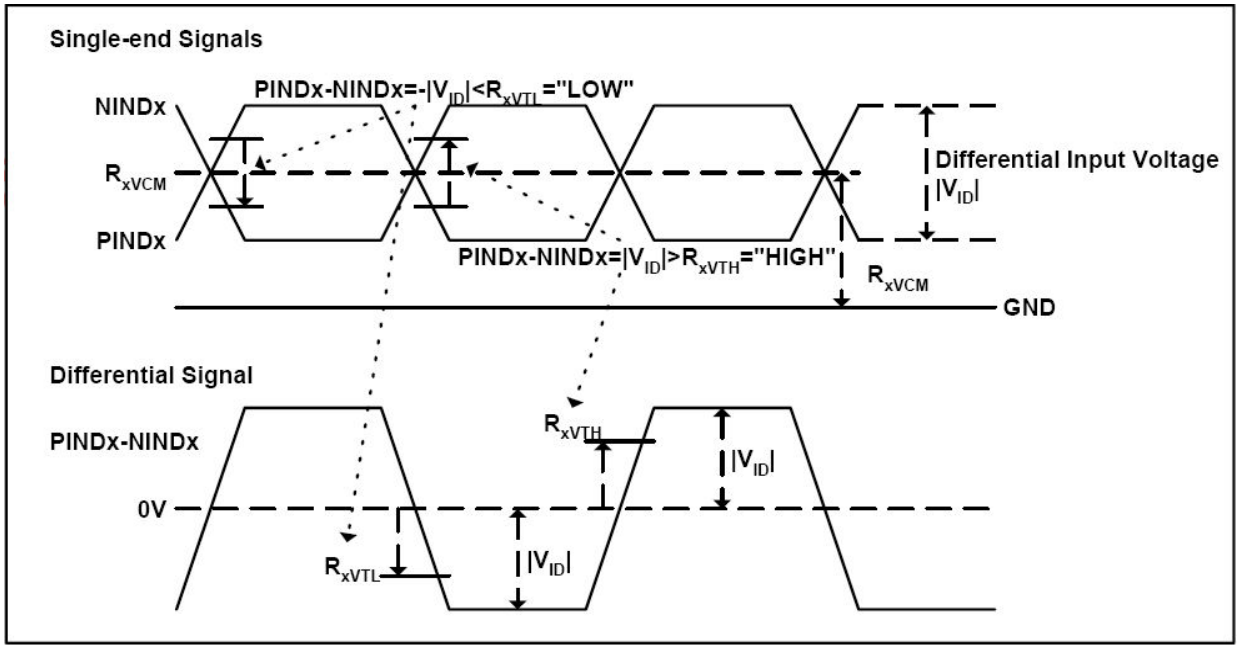
Parameter	Symbol	Values			Unit	Remark
		MIN	TYP	MAX		
Clock frequency	R_{xFCLK}	40.8	51.2	71		
Input data skew margin	T_{RSKM}	500	--	--		
Clock high time	T_{LVCH}	--	4/(7* R_{xFCLK})	--		
Clock low time	T_{LVCL}	--	3/(7* R_{xFCLK})	--		





7-2 DC Electrical Characteristics

Item	Symbol	Values			Unit	Note
		Min.	Typ.	Max.		
Differential input high Threshold voltage	R_{xVTH}	-	-	+0.1	V	R_{XVCM}=1.2V
Differential input low Threshold voltage	R_{xVTH}	-0.1	-	-	V	
Input voltage range (singled-end)	R_{xVIN}	0	-	2.4	V	
Differential input common mode voltage	R_{xVCM}	$\|V_{ID}\|/2$	-	2.4-$\|V_{ID}\|/2$	V	
Differential voltage	$\|V_{ID}\|$	0.2	-	0.6	V	
Differential input leakage current	RV_{xliz}	-10	-	+10	uA	

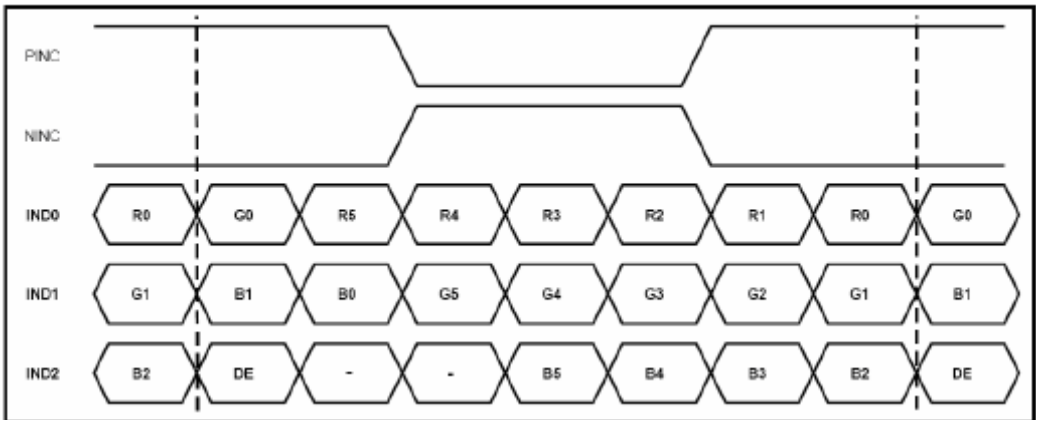


7-3 Timing

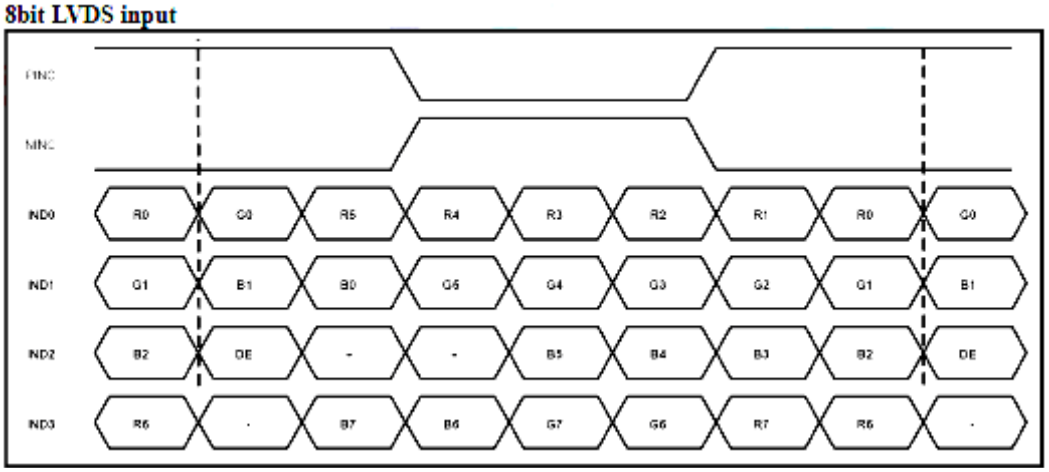
Item	Symbol	Values			Unit	Note
		Min.	Typ.	Max.		
Clock Frequency	fclk	40.8	51.2	67.2	MHz	Frame rate =60Hz
Horizontal display area	thd		1024		DCLK	
HS period time	th	1114	1344	1400	DCLK	
HS Blanking	thb	90	320	376	DCLK	
Vertical display area	tvd		600		H	
VS period time	tv	610	635	800	H	
VS Blanking	thb	10	35	200	H	

Default setting: 6bits LVDS input. (JP2 on PCBA)

6bit LVDS input



8bit LVDS input



8. Projected capacitive-type TOUCH PANEL ELECTRICAL SPECIFICATION

8-1 Basic Characteristic

ITEM	SPECIFICATION
Type	Projective Capacitive Touch Panel
Activation	Multi-finger
X/Y Position Reporting	Absolute Position
Touch Force	No contact pressure required
Calibration	No need for calibration
Report Rate	Approx. 100 points/sec
Interface/Protocol	IIC/V3.X
Control IC	ILI2511
Conductive susceptibility IEC/EN61000-4-6	10Vrms
Radiated Susceptibility IEC/EN61000-4-3	30V/m
Cover Glass	1.1mm chemically strength glass with black border
Bonding method	CG to sensor: optical bonding
	TP module to LCM: tape bonding

8-2 Electrical Characteristic

8-2-1 IIC Interface

Specify the normal operating condition

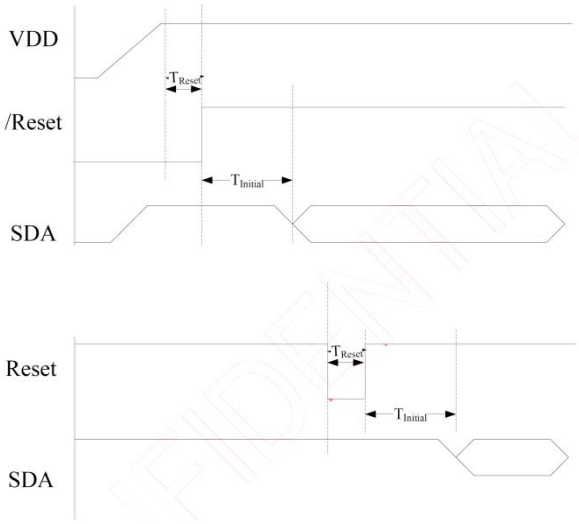
(GND=0V)

Item		Symbol	Min.	Typ.	Max.	Unit	Note
Power Supply Voltage		VIN	3	3.3	3.6	V	
Signal IIC Interface Logic level	Low	V_{IL}	0	-	0.3*VIN	V	
	High	V_{IH}	0.7*VIN	-	VIN	V	
Power Consumption		I_{VIN}		50		mA	Ref.

8-2-2 Interface

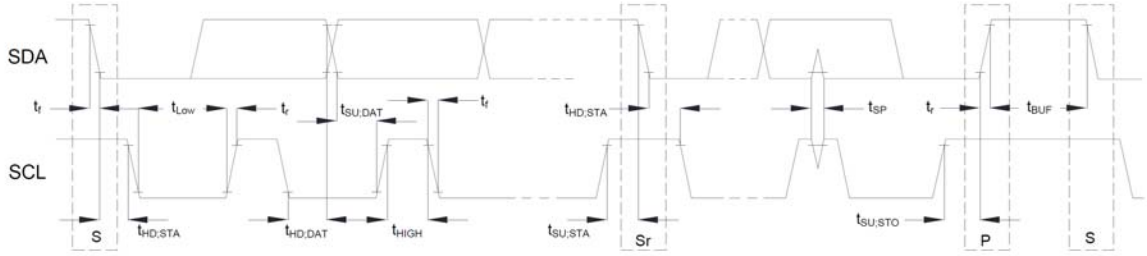
Pin No.	Symbol	Function
1	GND	POWER GND
2	SDA	IIC Data
3	SCL	IIC Clock
4	VIN	Power supply 3.3V
5	INT	Interrupt signal Active “Low”
6	RESET	Reset touch panel controller Active “Low”

8-2-3 Power- on Timing Chart (IIC interface)



Symbol	Parameter	MIN.	MAX.	Unit
$T_{Initial}$	After powering-on or resetting the device, the device needs I_{nitial} time to configure the system.	-	100	ms
T_{Reset}	/Reset pin low hold time	50	-	μs

8-2-4 IIC AC Waveform



8-2-5 IIC Characteristics

Symbol	Parameter	100KHz			400KHz		
		Min	Max	Unit	Min	Max	Unit
f_{SCL}	SCL clock frequency	0	100	kHz	0	400	KHz
$t_{HD;STA}$	Hold time (repeated) START condition. After this period, the first clock pulse is generated	4.0	–	µs	0.6	–	µs
t_{LOW}	LOW period of the SCL clock	4.7	–	µs	1.3	–	µs
t_{HIGH}	HIGH period of the SCL clock	4.0	–	µs	0.6	–	µs
$t_{SU;STA}$	Set-up time for a repeated START condition	4.7	–	µs	0.6	–	µs
$t_{HD;DAT}$	Data hold time	0	3.45	µs	0	0.9	µs
$t_{SU;DAT}$	Data set-up time	250	–	ns	100	–	ns
t_r	Rise time of both SDA and SCL signals	–	1000	ns	–	300	ns
t_f	Fall time of both SDA and SCL signals	–	300	ns	–	300	ns
$t_{SU;STO}$	Set-up time for STOP condition	4.0	–	µs	0.6	–	µs
t_{BUF}	Bus free time between a STOP and START condition	4.7	–	µs	1.3	–	µs

8-2-6 Format Protocol

Protocol V3.X Command List

CMD Code	Name	Set /Get	Note	b7	b6	b5	b4	b3	b2	b1	b0
0x10	Touch Information	Get		0: No touch 1: Last Report at ID 0 to ID 5 (include release status) 2: Last Report at ID 6 to ID 9 (include release status)							
			ID0	1: Touch Down, 0: Touch Off	0	X_High direction coordinate					
				X_Low direction coordinate							
				0	0	Y_High direction coordinate					
				Y_Low direction coordinate							
				Touch Pressure							
			ID1	1: Touch Down, 0: Touch Off	0	X_High direction coordinate					
				X_Low direction coordinate							
				0	0	Y_High direction coordinate					
				Y_Low direction coordinate							
				Touch Pressure							

			ID2	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID3	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID4	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		

			ID5	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
0x14	Touch Information 2	Get	ID6	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID7	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		

			ID8	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID9	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
0x20				The maximum X coordinate (bit 7:0)		
				The maximum X coordinate (bit 15:8)		
				The maximum Y coordinate (bit 7:0)		
				The maximum Y coordinate (bit 15:8)		
				The channel numbers of X direction		
				The channel numbers of Y direction		
				The maximum report points		

				The channel numbers of TouchKey / Scrolling Bar
				For Touch Key Application (Maximum supports 31 Touch Key) Byte 8 : The Touch Key number (<32) Byte 9: 0xFF
0x30	Enter Sleep Mode	Set		--
0x40	Firmware Version	Get		Chip ID Code
				Major firmware version
				Minor firmware version
				Release firmware version
				For Customer Firmware Version
				For Customer Firmware Version
				For Customer Firmware Version
				For Customer Firmware Version
0x42		Get		Major protocol version : 0x03
				Minor protocol version : XX
				Release protocol version : XX

Protocol V3.X Data Format

CMD Code	Name	Set / Get	Note	b7	b6	b5	b4	b3	b2	b1	b0
0x10	Touch Information	Get	Packet Number	0: No touch 1: Last Report at ID 0 to ID 5 (include release status) 2: Last Report at ID 6 to ID 9 (include release status)							
			ID0	1: Touch Down, 0: Touch Off	0	X_High direction coordinate					
				X_Low direction coordinate							
				0	0	Y_High direction coordinate					
				Y_Low direction coordinate							
				Touch Pressure							

			ID1	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID2	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID3	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID4	1: Touch Down, 0: Touch Off	0	X_High direction coordinate

				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		
			ID5	1: Touch Down, 0: Touch Off	0	X_High direction coordinate
				X_Low direction coordinate		
				0	0	Y_High direction coordinate
				Y_Low direction coordinate		
				Touch Pressure		

8-2-7 Interrupt Pin (INT) Control

When a finger touches on the sensor surface, the INT pin will be pull low. TP controller supports two different type control method.

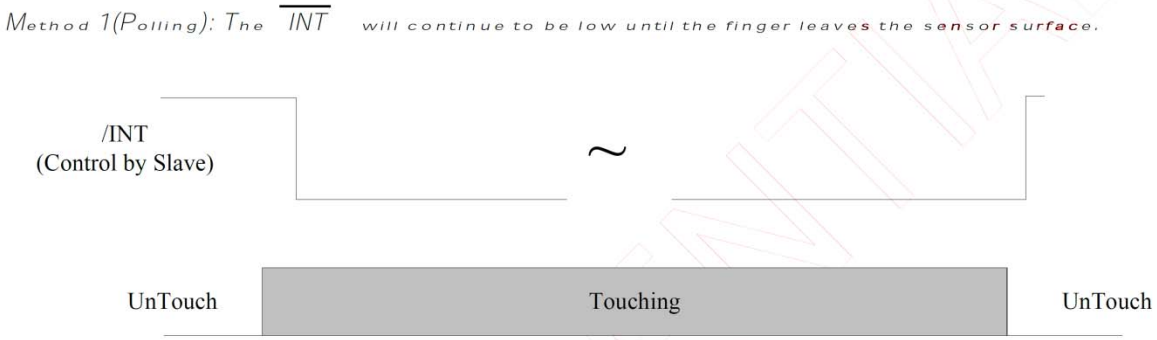


Fig 9: Method 1: $\overline{INT}$ Pin Control Diagram (Finger Touch)

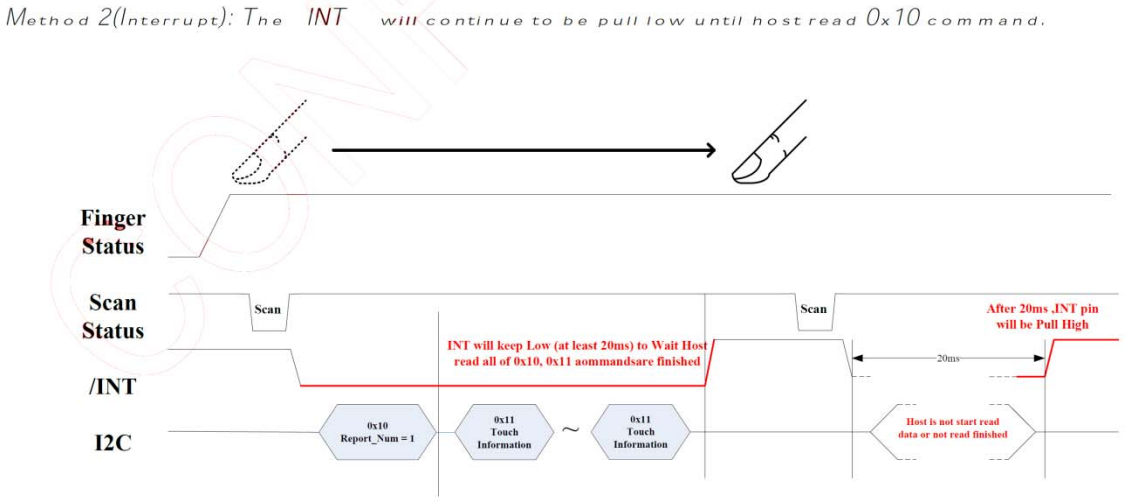


Fig 10: Method 2: $\overline{INT}$ Pin Control Diagram (Finger Touch)

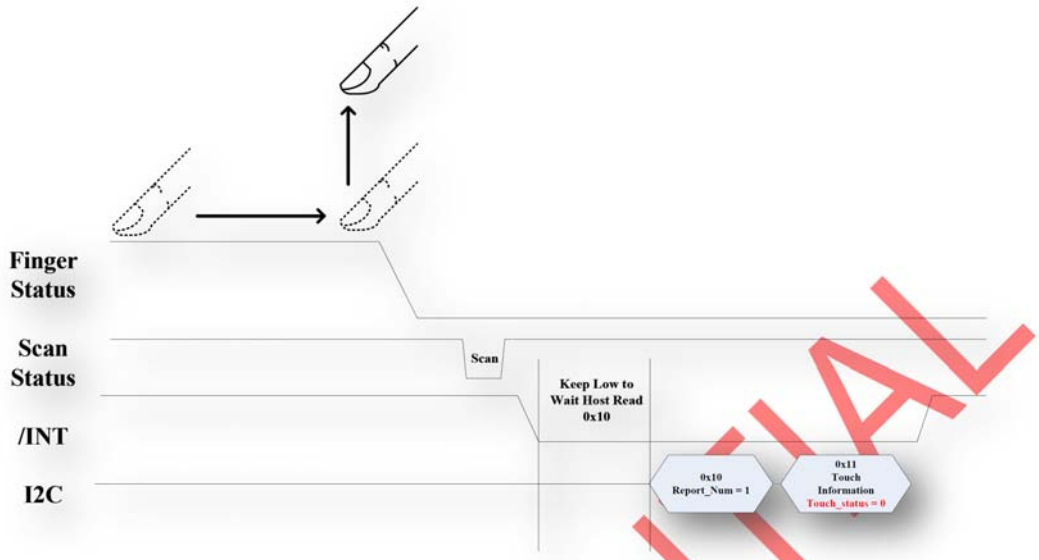


Fig 11: Method 2: $\overline{\text{INT}}$ Pin Control Diagram (Finger Release)

8-2-8 Device Address

MSB							LSB
1	0	0	0	0	0	1	0/1
Device Address							R/W

7-bit Device Address: 0x41

8-bit Device Read Address:0x83

8-bit Device Write Address:0x82

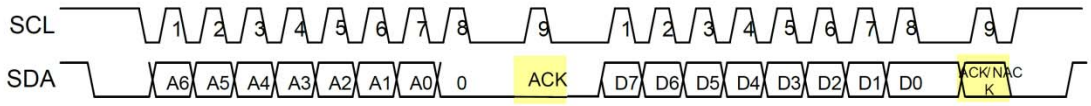
7-2-9 Data Transfer

Data is transferred over the IIC bus with 8-bit address and 8-bit data.

1	7	1	1	8	1	1
S	Slave Address	Wr	A	Data Byte	A	P

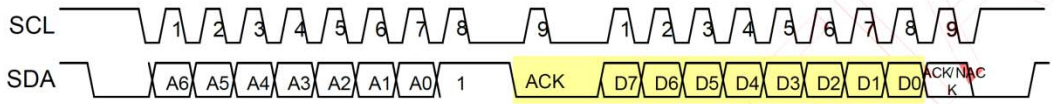
S	Start Condition
Sr	Repeated Start Condition
Rd	Read (bit value of 1)
Wr	Write (bit value of 0)
A/NA	Acknowledge (this bit position may be '0' for an ACK or '1' for a NACK)
P	Stop Condition
	Master-to-Slave
	Slave-to-Master
---	Continue

I2C Write timing



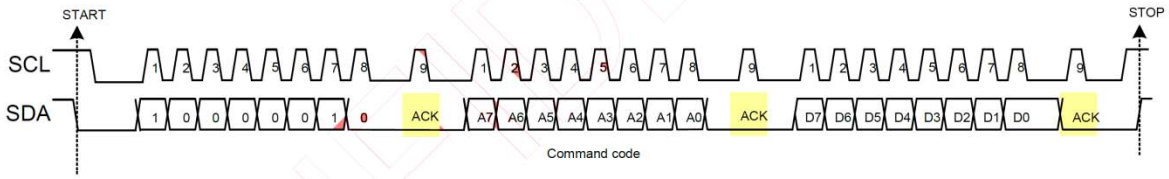
=> slave to master

I2C Read timing



=> slave to master

Byte Write



S	Slave Address	Wr	A	Command Code	A	Data Byte	A	P

Byte Write

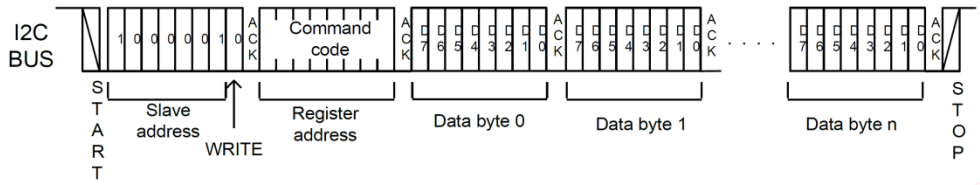
Byte Read

c

S	Slave Address	Wr	A	Command Code	A	Sr	Slave Address	Rd	A	Data Byte	A	P

Byte Read

Multi-Byte Write

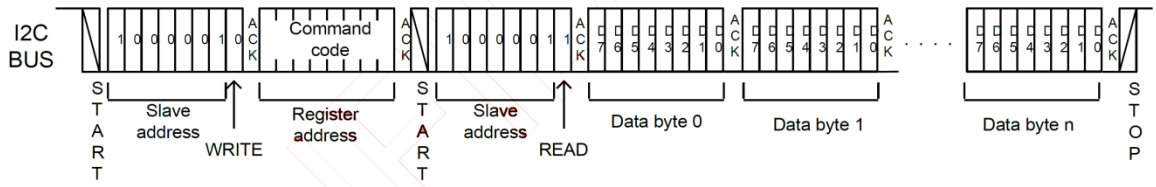


S	Slave Address	Wr	A	Command Code	A	Data Byte 0	A	Data Byte 1	A

Data Byte 2	A	-----	A	Data Byte N	A	P

Multi-Byte Write

Multi-Byte Read



S	Slave Address	Wr	A	Command Code	A	Sr	Slave Address	Rd	A	Data Byte 0	A

Data Byte 1	A	-----	A	Data Byte N	NA	P

Multi-Byte Read

9. RELIABILITY TEST CONDITIONS

Test Item	Test Conditions	Note
High Temperature Operation	70±3°C , t=240 hrs	
Low Temperature Operation	-20±3°C , t=240 hrs	
High Temperature Storage	80±3°C , t=240 hrs	1,2
Low Temperature Storage	-30±3°C , t=240 hrs	1,2
Storage at High Temperature and Humidity	40°C, 85% RH , 240 hrs	1,2
Thermal Shock Test	-20°C ~ 25°C ~ 70°C 30 m in. 5 min. 30 min. (1 cycle) Total 100 cycle(Dry)	1,2
Vibration Test (Packing)	Sweep frequency : 10 ~ 55 ~ 10 Hz/1min Amplitude : 0.75mm Test direction : X.Y.Z/3 axis Duration : 30min/each axis	2

Note 1 : Condensation of water is not permitted on the module.

Note 2 : The module should be inspected after 1 hour storage in normal conditions (15-35°C , 45-65%RH).

Note 3 : The module shouldn't be tested more than one condition, and all the test conditions are independent.

Note 4 : All the reliability tests should be done without protective film on the module.

Definitions of life end point :

- Current drain should be smaller than the specific value.
- Function of the module should be maintained.
- Appearance and display quality should not have degraded noticeably.
- Contrast ratio should be greater than 50% of the initial value.

10. GENERAL PRECAUTION

10-1 Safety

Liquid crystal is poisonous. Do not put it your month. If liquid crystal touches your skin or clothes, wash it off immediately by using soap and water.

10-2 Handling

1. The LCD panel is plate glass. Do not subject the panel to mechanical shock or to excessive force on its surface.
2. The polarizer attached to the display is easily damaged. Please handle it carefully to avoid scratch or other damages.
3. To avoid contamination on the display surface, do not touch the module surface with bare hands.
4. Keep a space so that the LCD panels do not touch other components.
5. Put cover board such as acrylic board on the surface of LCD panel to protect panel from damages.
6. Transparent electrodes may be disconnected if you use the LCD panel under environmental conditions where the condensation of dew occurs.
7. Do not leave module in direct sunlight to avoid malfunction of the ICs.

10-3 Static Electricity

1. Be sure to ground module before turning on power or operation module.
2. Do not apply voltage which exceeds the absolute maximum rating value.

10-4 Storage

1. Store the module in a dark room where must keep at +25±10℃ and 65%RH or less.
2. Do not store the module in surroundings containing organic solvent or corrosive gas.
3. Store the module in an anti-electrostatic container or bag.

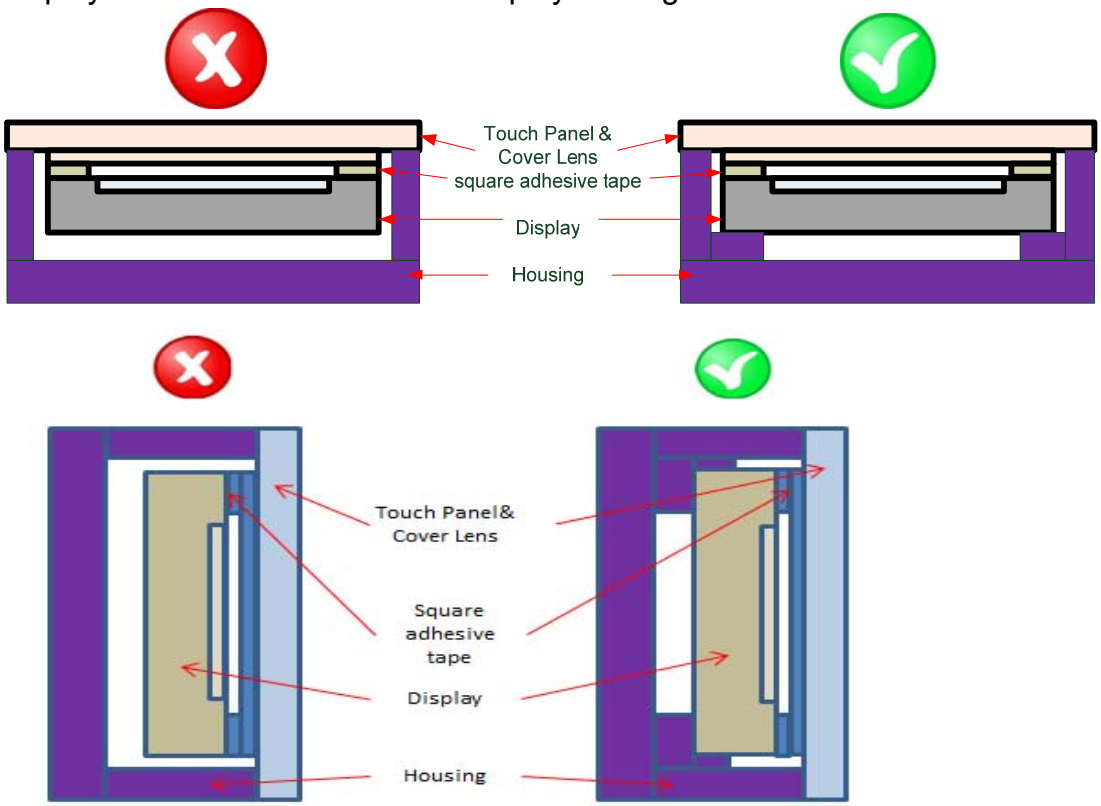
10-5 Cleaning

1. Do not wipe the polarizer with dry cloth. It might cause scratch.
2. Only use a soft sloth with IPA to wipe the polarizer, other chemicals might permanent damage to the polarizer.

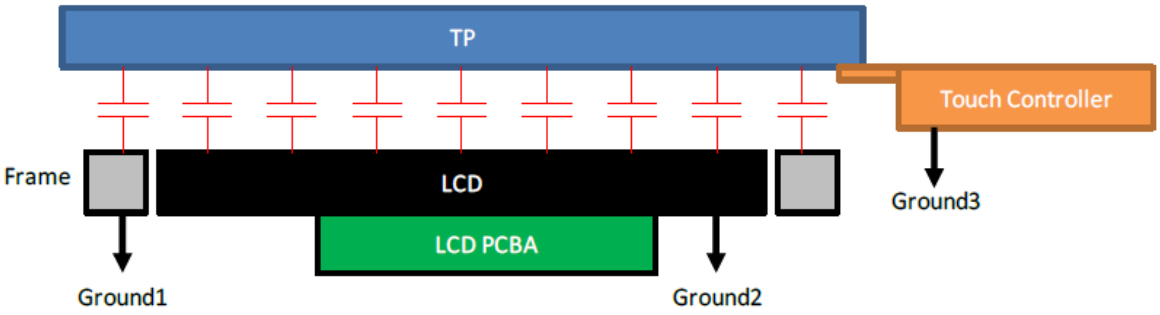
10.6 Mechanism (if the LCM using air bonding)

(1) Please mount LCD module by using mounting holes arranged in four corners tightly.

(2) The square adhesive tape which is between the touch panel and display can't provide well supporting in the long term and high ambient temperature condition. Whether upright or horizontal position the support holder which is in the back side of the display is needed. Do not let the display floating.



(3) TP needs to work in environment with stable stray capacitance. In order to minimize the variation in stray capacitance, all conductive mechanical parts must not be floating. Intermittent floating any conductive part around the touch sensor may cause significant stray capacitance change and abnormal touch function. It is recommended to keep all conductive parts having same electrical potential as the GND of the touch controller module.

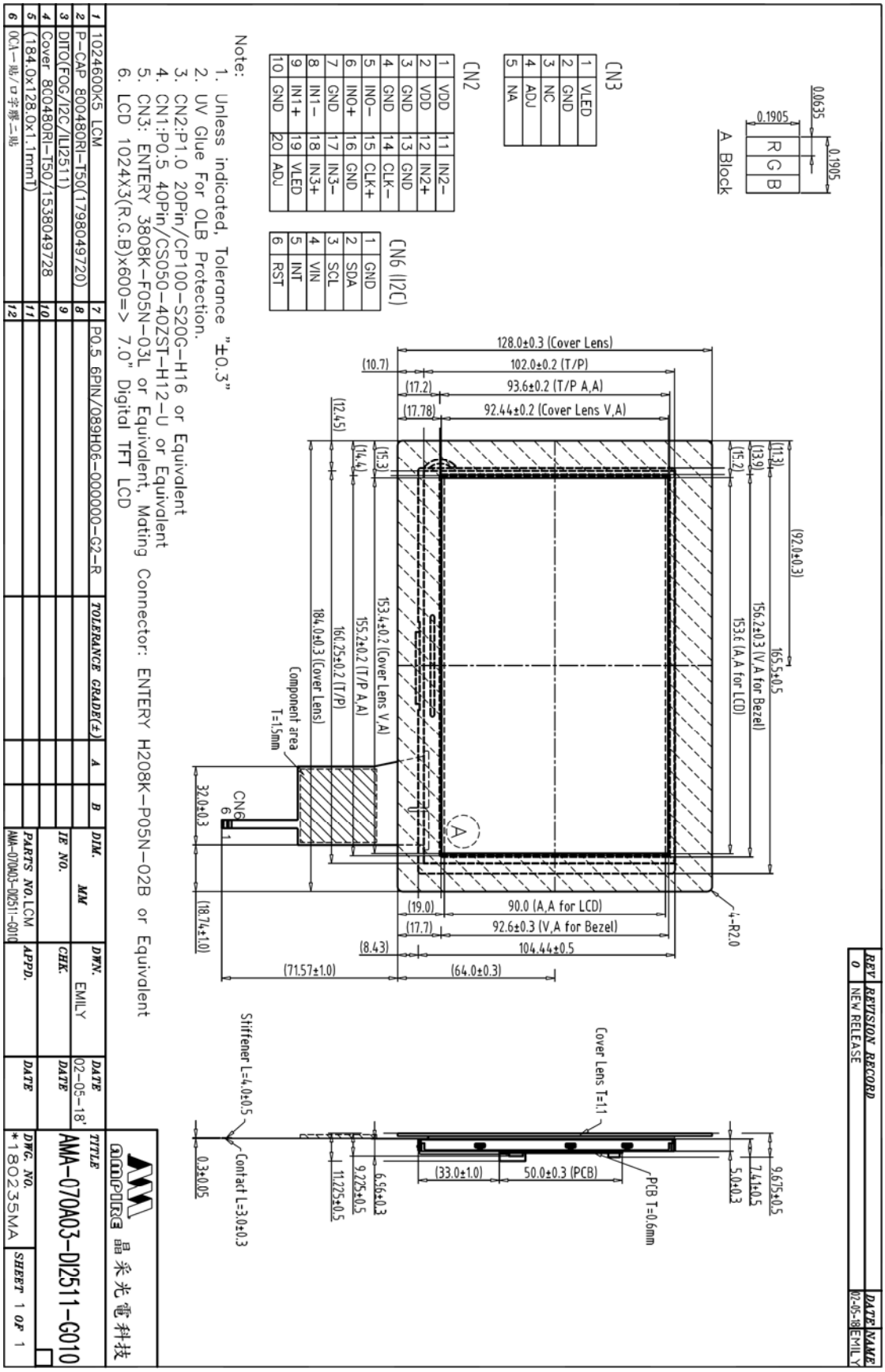


GND1, GND2 and GND3 should be connected together to have the same ground

11-7 Others

1. AMIPRE will provide one year warrantee for all products and three months warrantee for all repairing products.
2. Do not keep the LCD at the same display pattern continually. The residual image will happen and it will damage the LCD. Please use screen saver

12. OUTLINE DIMENSION



Note:
1. Unless indicated, Tolerance "±0.3"
2. UV Glue For OLB Protection.
3. CN2:P1.0 20Pin/CP100-S20G-H16 or Equivalent
4. CN1:P0.5 40Pin/CS050-40ZST-H12-U or Equivalent
5. CN3: ENTERY 3808K-F05N-03L or Equivalent, Mating Connector: ENTERY H208K-P05N-02B or Equivalent
6. LCD 1024X3(R.G.B)x600=> 7.0" Digital TFT LCD

REV.	REVISION RECORD	DATE	NAME
0	NEW RELEASE	07-05-18	EMILY

1	1024600K5 LCM	7	P0.5 6PIN/089H06-000000-G2-R	TOLERANCE GRADE(±)	A	B	DIM.	DWN. EMILY	DATE 02-05-18'
2	P-CAP 800480RI-T50(1798049720)	8					MM	CHK.	DATE
3	DITO(FOG/I2C/ILI2511)	9					TP NO.	APPD.	DATE
4	Cover 800480RI-T50/1538049728	10					PARTS NO.LCM		
5	(184.0x128.0x1.1mmT)	11					AMA-070A03-D2511-G010		
6	OCA一貼/ロ字膠二貼	12							

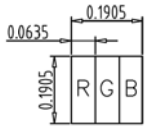
AMPIRE 晶采光電科技

TITTLE: AMA-070A03-DI2511-G010

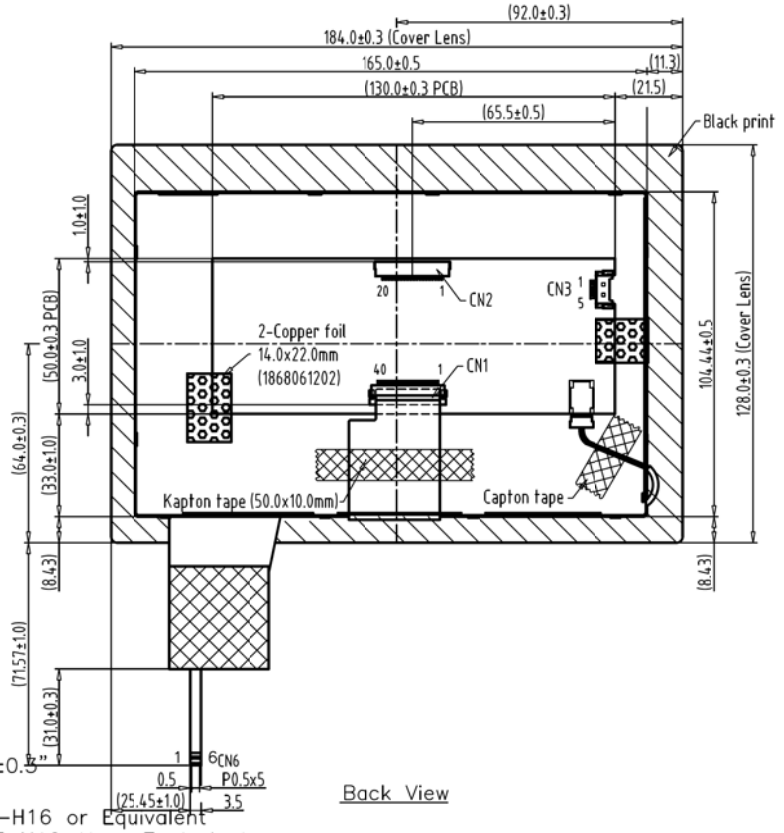
DWG. NO. *1802135MA

SHEET 1 OF 1

REV	REVISION RECORD	DATE	NAME
0	NEW RELEASE	02-05-18	EMILY



A Block



Back View

CN3

1	VLED
2	GND
3	NC
4	ADJ
5	NA

CN2

1	VDD	11	IN2−
2	VDD	12	IN2+
3	GND	13	GND
4	GND	14	CLK−
5	IN0−	15	CLK+
6	IN0+	16	GND
7	GND	17	IN3−
8	IN1−	18	IN3+
9	IN1+	19	VLED
10	GND	20	ADJ

CN6 (I2C)

1	GND
2	SDA
3	SCL
4	VIN
5	INT
6	RST

Note:
1. Unless indicated, Tolerance "±0.5"
2. UV Glue For OLB Protection.
3. CN2:P1.0 20Pin/CP100-S20G-H16 or Equivalent
4. CN1:P0.5 40Pin/CS050-40ZST-H12-U or Equivalent
5. CN3: ENTERY 3808K-F05N-03L or Equivalent, Mating Connector: ENTERY H208K-P05N-02B or Equivalent
6. LCD 1024X3(R.G.B)x600=> 7.0" Digital TFT LCD

1	1024600K5 LCM	7	P0.5 6PIN/089H06-000000-G2-R	TOLERANCE GRADE(±)	A	B	DIM. MM	DWN. EMILY	DATE 02-05-18'	TITLE	AMA-070A03-DI2511-G010
2	P-CAP 800480RI-T50(1798049720)	8					IE NO.	CHK.	DATE		
3	DITO(FOG/I2C/ILI2511)	9									
4	Cover 8C0480RI-T50/1538049728	10									
5	(184.0x128.0x1.1mmT)	11					PARTS NO. LCM-1	APPD.	DATE	DWG. NO. *180236MA	SHEET 1 OF 1
6	OCA一貼/口字膠二貼	12					AMA-070A03-DI2511-G010				

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