晶采光電科技股份有限公司
AMPIRE CO., LTD.

Specifications for LCD module

Customer	
Customer part no.	
Ampire part no.	**AM-800480AWTMQW-50H-B**
Approved by	
Date	

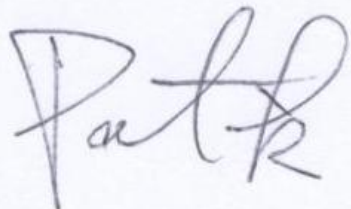☐**Approved For Specifications**
☐**Approved For Specifications & Sample**

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RECORD OF REVISION

Revision Date	Page	Contents	Editor
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1. Features

7 inch Amorphous-TFT-LCD (Thin Film Transistor Liquid Crystal Display) module. This module is composed of a 7" TFT-LCD panel and LED backlight.

(1) Construction: 7" a-Si TFT active matrix, White LED Backlight.
(2) Resolution (pixel): 800(R.G.B) X480
(3) Number of the Colors : 262K colors (R , G , B 6 bit digital each)
(4) LCD type : Transmissive, normally White
(5) Interface: MCU
(6) Viewing Direction: 6 O'clock (Gray inversion)

2. PHYSICAL SPECIFICATIONS

Item	Specifications	unit
LCD size	7 inch (Diagonal)	
Resolution	800 x (RGB) x 480	dot
Pixel pitch	0.1923(W) x 0.1784(H)	mm
Active area	153.84(W) x 85.63(H)	mm
Module size	164.9(W) x 100.0(H) x8.45(D)	mm
Color arrangement	RGB-stripe	
interface	Digital	

3. ABSOLUTE MAX. RATINGS

Item	Symbol	Values			Unit	Remark
		MIN	TYP	MAX		
Power Voltage	V_{CC}	3.0	3.3	3.6	V	Note 2
Operation Temperature	T_{OP}	-20	-	70	℃	
Storage Temperature	T_{ST}	-30	-	80	℃	
LED Reverse Voltage	V_R	-	-	1.2	V	Each LED Note 2
LED Forward Current	I_F	-	-	30	mA	Each LED

Note (1)   The absolute maximum rating values of this product are not allowed to be exceeded at any times. Should a module be used with any of the absolute maximum ratings exceeded, the characteristics of the module may not be recovered, or in an extreme case, the module may be permanently destroyed.

Note (2) V_R Conditions: Zener Diode 20mA

4. Backlight Driving Conditions

ITEM	SYMBOL	MIN	TYP	MAX	UNIT	NOTE
LED Driver Power Voltage	V_{LED}	4.2	5	6	V	
LED Driver Power Current	I_{LED}(VLED=5V)	-	668	--	mA	Ta=25℃
PWM Dimming DC active level	V_{ADJH}	1.5	-	6	V	
	V_{ADJL}	-	-	0.6	V	
PWM Dimming Freq.	F_{ADJ}	0.2		20	kHz	
EN Pin High Voltage	V_{ADJH}	1.4		--	V	
EN Pin Low Voltage	V_{ADJL}	--		0.8	V	
LED voltage	VL	9.3	9.9	10.5	V	Note 1
LED current	IL	220	270	--	mA	Note 1
LED life time	--		20,000	--	--	Hr	Note 2

Note (1)   The LED Supply Voltage is defined by the number of LED at Ta=25℃ and IL=270mA.

Note (2)   The "LED life time" is defined as the module brightness decrease to 50% original brightness at Ta=25℃ and IL=270mA. The LED lifetime could be decreased if operating IL is larger than 270mA.
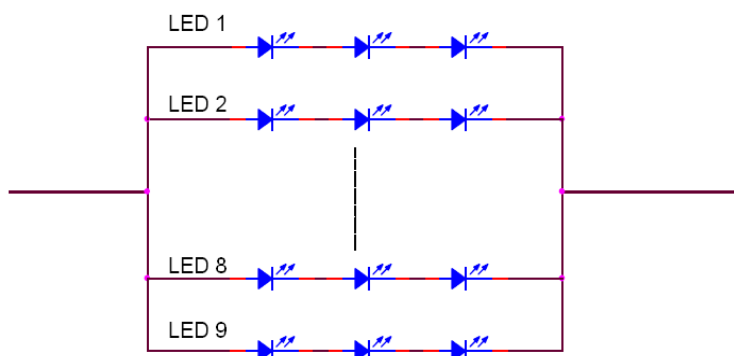
Note (3)   When LCM is operated over 40℃ ambient temperature, the I_LED should be follow :
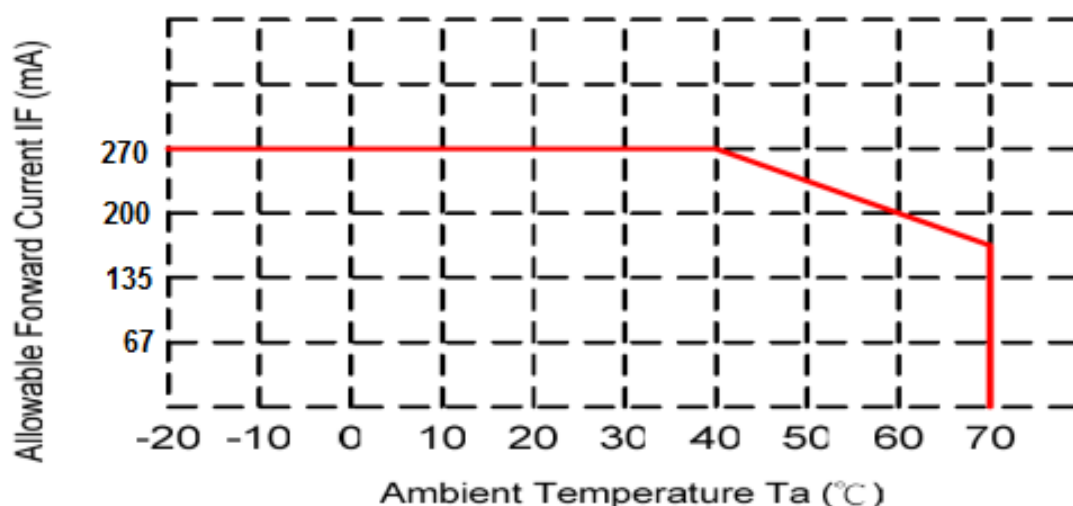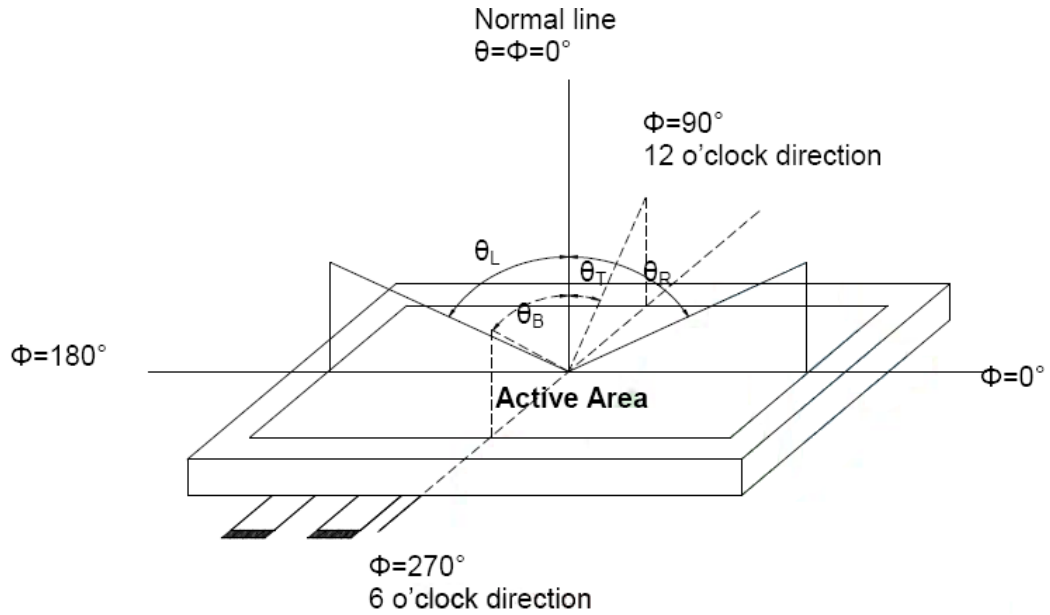
5. Optical Specifications

Item	Symbol	Condition	Values			Unit	Note
			Min.	Typ.	Max.		
Viewing angle (CR≧10)	θ L	Φ = 180° (9 o'clock)	60	70	--	degree	Note1
	θ R	Φ = 0° (3 o'clock)	60	70	--		
	θ T	Φ = 90° (12 o'clock)	50	60	--		
	θ B	Φ = 270° (6 o'clock)	60	70	--		
Response time	TON	Normal θ =Φ=0°	--	10	20	msec	Note3
	TOFF		--	15	30	msec	
Contrast ratio	CR		350	500	--	--	Note4
Color chromaticity	WX		0.265	0.295	0.325	--	Note5 Note6
	WY		0.304	0.334	0.364	--	
Luminance	L		640	**800**	--	cd/㎡	Note6
Luminance uniformity	YU		70	75	--	%	Note7

Test Conditions:

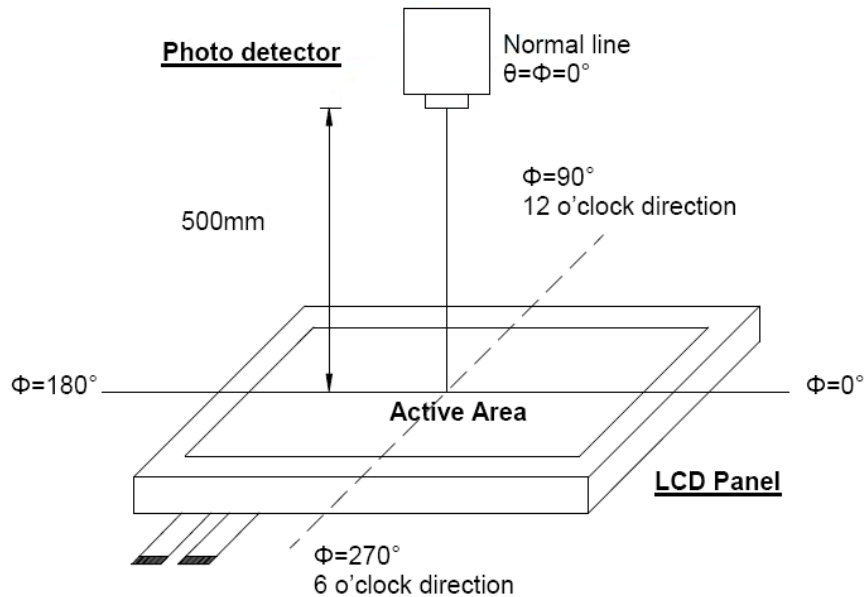VCC = 3.3V, I$_L$ = 270mA (Backlight current), the ambient temperature is 25℃.

The test systems refer to Note 2.

Note (1)   Definition of viewing angle range

Normal line
θ=Φ=0°

Φ=90°
12 o'clock direction

θ_L   θ_T   θ_R
θ_B

Φ=180°

Active Area

Φ=0°

Φ=270°
6 o'clock direction

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.)

Photo detector

Normal line
θ=Φ=0°

Φ=90°
12 o'clock direction

500mm

Φ=180°

Active Area

Φ=0°

LCD Panel

Φ=270°
6 o'clock direction

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 (TON) is the time between photo detector output intensity changed from 90% to 10%. And fall time (TOFF) is the time between photo detector output intensity changed from 10% to 90%.
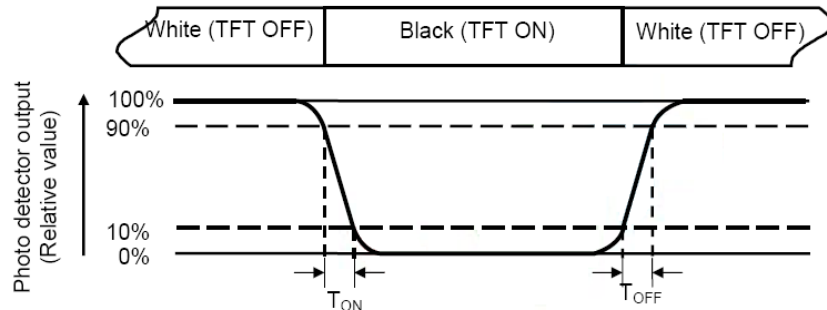
Note (4)   Definition of contrast ratio

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

Note (5)   Definition of color chromaticity (CIE1931)

Color coordinated measured at center point of LCD.

All input terminals LCD panel must be ground when measuring the center area of the panel.
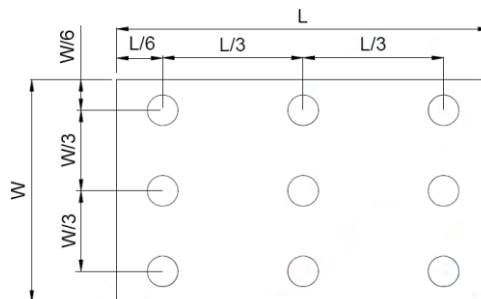
Note (6)   Definition of Luminance Uniformity

Active area is divided into 9 measuring areas (Refer to bellow figure).

Every measuring point is placed at the center of each measuring area.

$$\text{Luminance Uniformity (Yu)} = \frac{\text{Bmin}}{\text{Bmax}}$$

L ----- Active area length   W ----- Active area width

Bmax : The measured maximum luminance of all measurement position.

Bmin : The measured minimum luminance of all measurement position.

6. INTERFACE

Pin no	Symbol	I/O	Description	Remark
1	GND	-	GND	
2				
3	VLED	I	LED Power input (5V)	
4	VLED	I	LED Power input (5V)	
5	/RESET	I	Reset signal for TFT LCD controller.	
6	RS	I	Register and Data select for TFT LCD controller.	
7	/CS	I	Chip select low active signal for TFT LCD controller.	
8	/WR	I	80mode: /WR low active signal for TFT LCD controller. 68mode: E signal latch on rising edge.	
9	/RD	I	80mode: /RD low active signal for TFT LCD controller. 68mode: R/W signal Hi: read, Lo: write.	
10	DB0	I	Data bus.	
11	DB1	I		
12	DB2	I		
13	DB3	I		
14	DB4	I		
15	DB5	I		
16	DB6	I		
17	DB7	I		
18	DB8	I		
19	DB9	I		
20	DB10	I		
21	DB11	I		
22	DB12	I		
23	DB13	I		
24	DB14	I		
25	DB15	I		
26	DB16	I		
27	DB17	I		
28	NC	-	No connection.	
29	GND	-	GND	
30	SK	-	TSC2046 SPI serial clock input	
31	DO	-	TSC2046 SPI serial data output.	
32	DI	-	TSC2046 SPI serial data input.	
33	TPCS	-	TSC2046 Chip Select signal. Active low.	
34	IRQ	-	TSC2046 Pen interrupt	
35-37	VDD	-	Power supply for the logic (3.3V).	
38-40	GND	-	GND.	

I: input, O: output, P: power

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7. Interface Protocol

7.1 M68 Series

| Symbol	Parameter	Min	Typ	Max	Unit
t_{CYC}	Reference Clock Cycle Time	9	-	-	ns
t_{PWCSL}	Pulse width CS# or E low	1	-	-	t_{CYC}
t_{PWCSH}	Pulse width CS# or E high	1	-	-	t_{CYC}
t_{FDRD}	First Data Read Delay	5	-	-	t_{CYC}
t_{AS}	Address Setup Time	1	-	-	ns
t_{AH}	Address Hold Time	1	-	-	ns
t_{DSW}	Data Setup Time	4	-	-	ns
t_{DHW}	Data Hold Time	1	-	-	ns
t_{DSR}	Data Access Time	-	-	5	ns
t_{DHR}	Output Hold time	1	-	-	ns
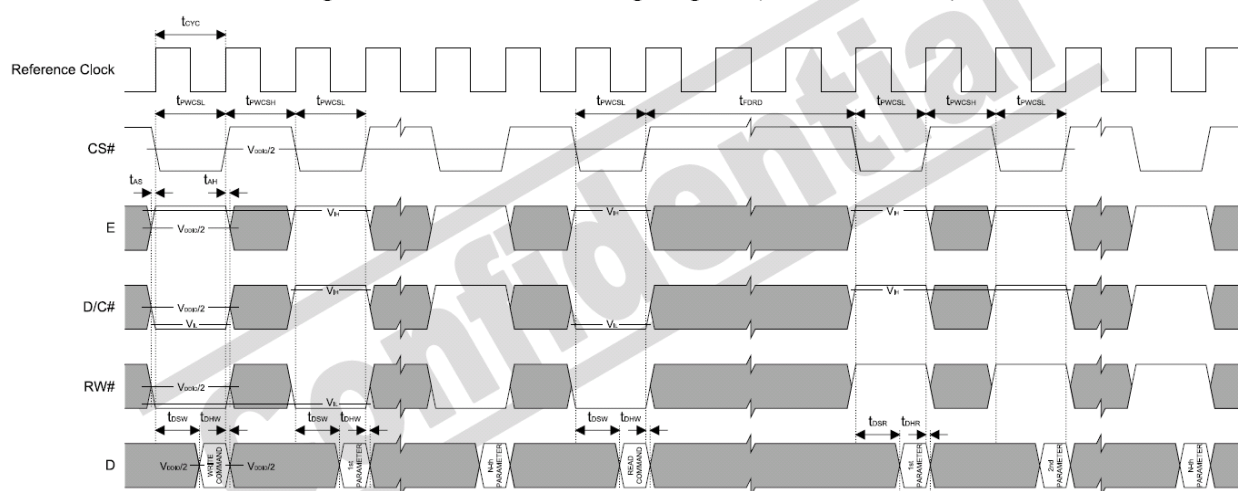
6800 Mode Timing Diagram (Use CS# as Clock)
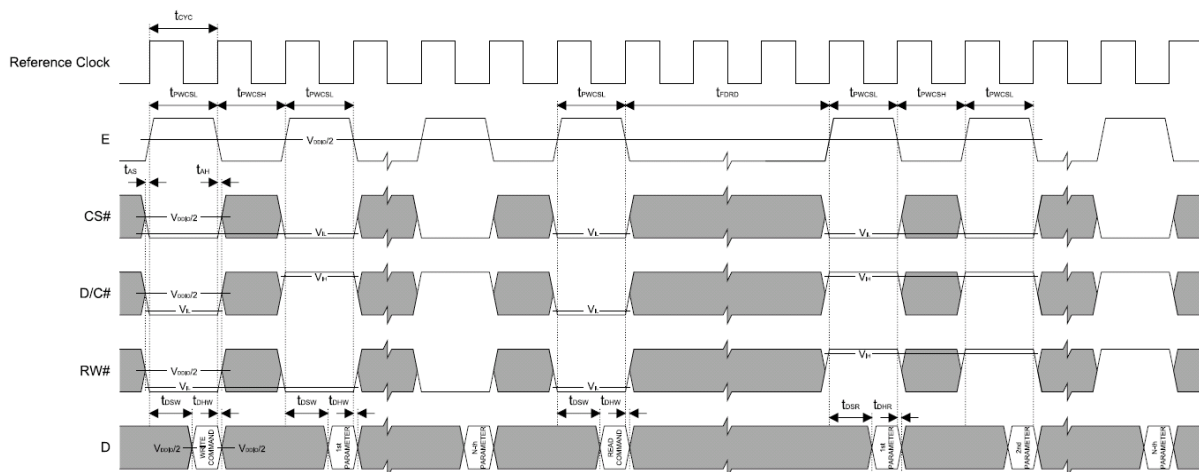
6800 Mode Timing Diagram (Use E as Clock)

7.2 i80 Series

Symbol	Parameter	Min	Typ	Max	Unit
t_{cyc}	Reference Clock Cycle Time	9	-	-	ns
t_{PWCSL}	Pulse width CS# low	1	-	-	t_{CYC}
t_{PWCSH}	Pulse width CS# high	1	-	-	t_{CYC}
t_{FDRD}	First Read Data Delay	5	-	-	t_{CYC}
t_{AS}	Address Setup Time	1	-	-	ns
t_{AH}	Address Hold Time	1	-	-	ns
t_{DSW}	Data Setup Time	4	-	-	ns
t_{DHW}	Data Hold Time	1	-	-	ns
t_{DSR}	Data Access Time	-	-	5	ns
t_{DHR}	Output Hold time	1	-	-	ns
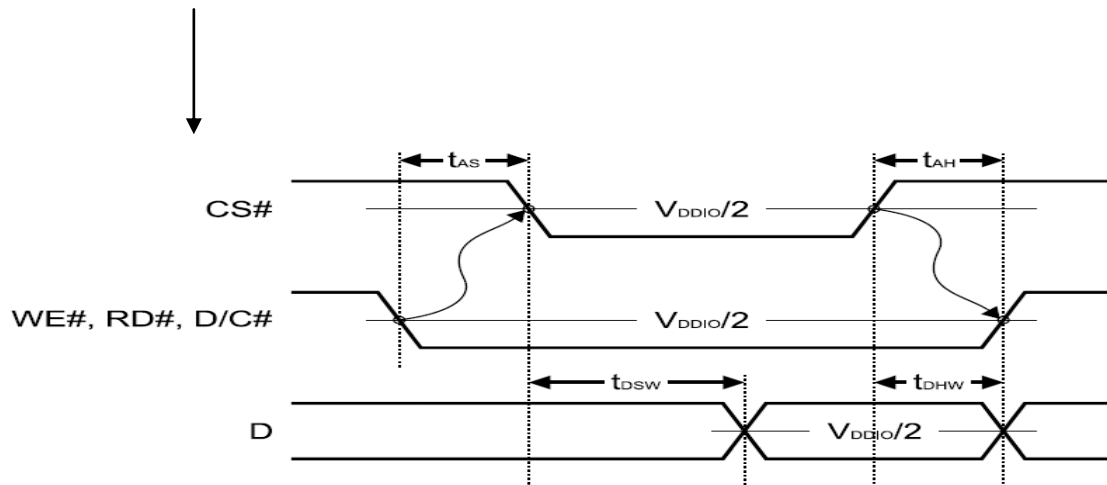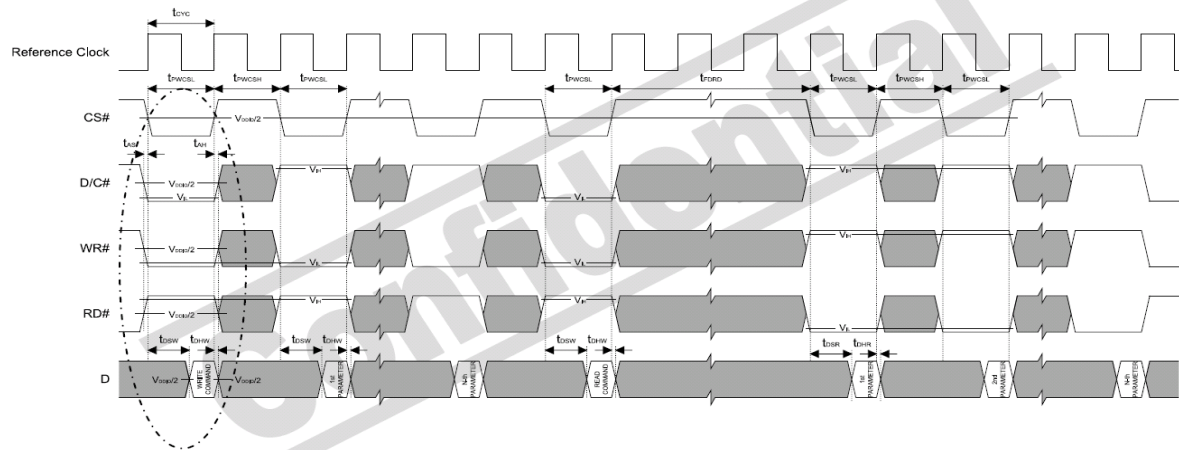
7.3 Data transfer order setting

Interface	Cycle	D[23]	D[22]	D[21]	D[20]	D[19]	D[18]	D[17]	D[16]	D[15]	D[14]	D[13]	D[12]	D[11]	D[10]	D[9]	D[8]	D[7]	D[6]	D[5]	D[4]	D[3]	D[2]	D[1]	D[0]
24 bits	1st	R7	R6	R5	R4	R3	R2	R1	R0	G7	G6	G5	G4	G3	G2	G1	G0	B7	B6	B5	B4	B3	B2	B1	B0
18 bits	1st							R5	R4	R3	R2	R1	R0	G5	G4	G3	G2	G1	G0	B5	B4	B3	B2	B1	B0
16 bits (565 format)	1st									R5	R4	R3	R2	R1	G5	G4	G3	G2	G1	G0	B5	B4	B3	B2	B1
16 bits	1st									R5	R4	R3	R2	R1	R0	X	X	G5	G4	G3	G2	G1	G0	X	X
	2nd									B5	B4	B3	B2	B1	B0	X	X	R5	R4	R3	R2	R1	R0	X	X
	3rd									G5	G4	G3	G2	G1	G0	X	X	B5	B4	B3	B2	B1	B0	X	X
9 bits	1st																R5	R4	R3	R2	R1	R0	G5	G4	G3
	2nd																G2	G1	G0	B5	B4	B3	B2	B1	B0
8 bits	1st																	R5	R4	R3	R2	R1	R0	X	X
	2nd																	G5	G4	G3	G2	G1	G0	X	X
	3rd																	B5	B4	B3	B2	B1	B0	X	X

X: Don't Care

8. Command Table

Hex Code	Command	Description
0x 00	nop	No operation
0x 01	soft_reset	Software Reset
0x 0A	get_power_mode	Get the current power mode
0x 0B	get_address_mode	Get the frame memory to the display panel read order
0x 0C	get_pixel_format	Get the current pixel format
0x 0D	get_display_mode	The display module returns the Display Signal Mode.
0x 0E	get_signal_mode	Get the current display mode from the peripheral
0x 10	enter_sleep_mode	Turn off the panel. This command will pull low the GPIO0. If GPIO0 is configured as normal GPIO or LCD miscellaneous signal with command set_gpio_conf, this command will be ignored.
0x 11	exit_sleep_mode	Turn on the panel. This command will pull high the GPIO0. If GPIO0 is configured as normal GPIO or LCD miscellaneous signal with command set_gpio_conf, this command will be ignored.
0x 12	enter_partial_mode	Part of the display area is used for image display.
0x 13	enter_normal_mode	The whole display area is used for image display.
0x 20	exit_invert_mode	Displayed image colors are not inverted.
0x 21	enter_invert_mode	Displayed image colors are inverted.
0x 26	set_gamma_curve	Selects the gamma curve used by the display device.
0x 28	set_display_off	Blanks the display device.
0x 29	set_display_on	Show the image on the display device.
0x 2A	set_column_address	Set the column extent.
0x 2B	set_page_address	Set the page extent.
0x 2C	write_memory_start	Transfer image information from the host processor interface to the peripheral starting at the location provided by set_column_address and set_page_address.
0x 2E	read_memory_start	Transfer image data from the peripheral to the host processor interface starting at the location provided by set_column_address and set_page_address.
0x 30	set_partial_area	Defines the partial display area on the display device.
0x 33	set_scroll_area	Defines the vertical scrolling and fixed area on display area.
0x 34	set_tear_off	Synchronization information is not sent from the display module to the host processor.
0x 35	set_tear_on	Synchronization information is sent from the display module to the host processor at the start of VFP.
0x 36	set_address_mode	Set the read order from frame buffer to the display panel.
0x 37	set_scroll_start	Defines the vertical scrolling starting point.
0x 38	exit_idle_mode	Full color depth is used for the display panel.
0x 39	enter_idle_mode	Reduce color depth is used on the display panel.
0x 3A	set_pixel_format	Defines how many bits per pixel are used in the interface.
0x 3C	write_memory_continue	Transfer image information from the host processor interface to the peripheral from the last written location.
0x 3E	read_memory_continue	Read image data from the peripheral continuing after the last read_memory_continue or read_memory_start.
0x 44	set_tear_scanline	Synchronization information is sent from the display module to the host processor when the display device refresh reaches the provided scan line.
0x 45	get_scanline	Get the current scan line.
0x A1	read_ddb	Read the DDB from the provided location.
0x B0	set_lcd_mode_pad_size	Set the LCD panel mode (RGB TFT or TTL).
0x B1	get_lcd_mode_pad_size	Get the current LCD panel mode, pad strength and resolution.
0x B4	set_hori_period	Set front porch.
0x B5	get_hori_period	Get current front porch settings.

0x B6	set_vert_period	Set the vertical blanking interval between last scan line and next LFRAME pulse.
0x B7	get_vert_period	Set the vertical blanking interval between last scan line and next LFRAME pulse.
0x B8	set_gpio_conf	Set the GPIO configuration. If the GPIO is not used for LCD, set the direction. Otherwise, they are toggled with LCD signals.
0x B9	get_gpio_conf	Get the current GPIO configuration.
0x BA	set_gpio_value	Set GPIO value for GPIO configured as output.
0x BB	get_gpio_status	Read current GPIO status. If the individual GPIO was configured as input, the value is the status of the corresponding pin. Otherwise, it is the programmed value.
0x BC	set_post_proc	Set the image post processor.
0x BD	get_post_proc	Set the image post processor.
0x BE	set_pwm_conf	Set the image post processor.
0x BF	get_pwm_conf	Set the image post processor.
0x C0	set_lcd_gen0	Set the rise, fall, period and toggling properties of LCD signal generator 0
0x C1	get_lcd_gen0	Get the current settings of LCD signal generator 0
0x C2	set_lcd_gen1	Set the rise, fall, period and toggling properties of LCD signal generator 1.
0x C3	get_lcd_gen1	Get the current settings of LCD signal generator 1.
0x C4	set_lcd_gen2	Set the rise, fall, period and toggling properties of LCD signal generator 2.
0x C5	get_lcd_gen2	Get the current settings of LCD signal generator 2.
0x C6	set_lcd_gen3	Set the rise, fall, period and toggling properties of LCD signal generator 3.
0x C7	get_lcd_gen3	Get the current settings of LCD signal generator 3.
0x C8	set_gpio0_rop	Set the GPIO0 with respect to the LCD signal generators using ROP3 operation. No effect if the GPIO0 is configured as general GPIO.
0x C9.	get_gpio0_rop	Get the GPIO0 properties with respect to the LCD signal generators.
0x CA	set_gpio1_rop	Set the GPIO1 with respect to the LCD signal generators using ROP3 operation. No effect if the GPIO1 is configured as general GPIO.
0x CB	get_gpio1_rop	Get the GPIO1 properties with respect to the LCD signal generators.
0x CC	set_gpio2_rop	Set the GPIO2 with respect to the LCD signal generators using ROP3 operation. No effect if the GPIO2 is configured as general GPIO.
0x CD	get_gpio2_rop	Get the GPIO2 properties with respect to the LCD signal generators.
0x CE	set_gpio3_rop	Set the GPIO3 with respect to the LCD signal generators using ROP3 operation. No effect if the GPIO3 is configured as general GPIO.
0x CF	get_gpio3_rop	Get the GPIO3 properties with respect to the LCD signal generators.
0x D0	set_abc_dbc_conf	Set the ambient back light and dynamic back light configuration.
0x D1	get_abc_dbc_conf	Get the ambient back light and current dynamic back light configuration.
0x D4	set_dbc_th	Set the threshold for each level of power saving.
0x D5	get_dbc_th	Get the threshold for each level of power saving.
0x E0	set_pll_start	Start the PLL. Before the start, the system was operated with the crystal oscillator or clock input.
0x E2	set_pll_mnk	Set the PLL.
0x E3	get_pll_mnk	Get the PLL settings.
0x E4	get_pll_status	Get the current PLL status.
0x E5	set_deep_sleep	Set deep sleep mode.
0x E6	set_lshift_freq	Set the LSHIFT (pixel clock) frequency.
0x E7	get_lshift_freq	Get current LSHIFT (pixel clock) frequency setting.
0x F0	set_pixel_data_interface	Set the pixel data format of the parallel host processor interface.
0x F1	get_pixel_data_interface	Get the current pixel data format settings.

About the further detail, please refer the datasheet of SSD1963.

9 DISPLAYED COLOR AND INPUT DATA

	Color & Gray Scale	DATA SIGNAL																	
		R5	R4	R3	R2	R1	R0	G5	G4	G3	G2	G1	G0	B5	B4	B3	B2	B1	B0
Basic Color	Black	0	0	0	0	0	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
	Green(63)	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0
	Blue(63)	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
Red	Black	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
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Red(31)	0	1	1	1	1	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
Green	Black	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
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Green(31)	0	0	0	0	0	0	0	1	1	1	1	0	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
Blue	Black	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
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Blue(31)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	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

10. 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	60°C, 90% RH , 240 hrs	1,2
Thermal Shock Test	-20°C (30min) ~ 70°C (30min) 100 cycles	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).

11. General Precautions

11.1 Safety

(1)   Liquid crystal is poisonous. Do not put it your month. If the liquid crystal touches you skin or clothes, you need to wash it off immediately with the soap and water.

11.2 Handling

(1)   The LCD panel is plate glass. Do not subject the panel to mechanical shock or excessive force on its surface.

(2)   The polarizer which 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 on cover board such as acrylic board, which covers 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.

11.3 Static Electricity

(1)   Be sure to ground module before you turns on power or operation module.

(2)   Do not apply voltage which exceeds the absolute maximum rating value.

11.4 Storage

(1)   Store the module in a dark room where it must keep at +25±10℃ and 65%RH or less.

(2)   Do not store the module in surroundings which are containing organic solvent or corrosive gas.

(3)   Store the module in an anti-electrostatic container or bag.

11.5 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.

11.6 Others

(1)   AMIPRE will provide one year warrantee for all products and three months warrantee for all repairing products.

(2)   Do not apply fixed pattern data signal to the LCD module as you are using the product.

10. OUTLINE DIMENSION

CN3

1	GND	21	DB11
2	GND	22	DB12
3	VLED	23	DB13
4	VLED	24	DB14
5	/RESET	25	DB15
6	RS	26	DB16
7	/CS	27	DB17
8	NC	28	NC
9	/RD	29	GND
10	DB0	30	SK
11	DB1	31	DO
12	DB2	32	DI
13	DB3	33	TPCS
14	DB4	34	IRQ
15	DB5	35	VDD
16	DB6	36	VDD
17	DB7	37	VDD
18	DB8	38	GND
19	DB9	39	GND
20	DB10	40	GND

Note:
1. Unless indicated, Tolerance "±0.3"
2. UV Glue For OLB Protection.
3. CN1:P0.5 50Pin/CSF-2082-501R or Equivalent.
4. CN2:P0.5 40Pin H2.0/089H40-000000-G2-C or Equivalent.

A Block
R G B
0.1784
0.0641
0.1923

100.0±0.3 (LCM)
89.1±0.2 (V,A)
85.632 (A,A)
(7.33)
(9.449)
(2.44)
(4.04)
164.9±0.3 (LCM)
157.04±0.2 (V,A)
153.84 (A,A)
(80.96±0.3)
(52.265±0.3)

Viewing Direction

Remove tape
PCB T=0.6
8.45±0.5
5.7±0.3

AMPIRE 晶采光電科技

TITLE: 800480AW-50-B (7.0"+MCU Board)
DWG. NO.: *16O359MA
SHEET 1 OF 1

REV REVISION RECORD
0 NEW RELEASE

DATE/NAME 03-16-16 Di-Wen

TOLERANCE GRADE(±)

DIM.	A	B
IB NO.		

PARTS NO.LCM 800480AW-50-B

MM
DWN. Di-Wen DATE 03-16-16
CHK. DATE
APPD. DATE

1 800480AW-50 LCM 7
2 MCU Board 8 9
3 10
4 11
5
6 12

CN3

1	GND	21	DB11
2	GND	22	DB12
3	VLED	23	DB13
4	VLED	24	DB14
5	/RESET	25	DB15
6	RS	26	DB16
7	/CS	27	DB17
8	/WR	28	NC
9	/RD	29	GND
10	DB0	30	SK
11	DB1	31	DO
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13	DB3	33	TPCS
14	DB4	34	IRQ
15	DB5	35	VDD
16	DB6	36	VDD
17	DB7	37	VDD
18	DB8	38	GND
19	DB9	39	GND
20	DB10	40	GND

Note:
1. Unless indicated, Tolerance "±0.3"
2. UV Glue For OLB Protection.
3. CN1:P0.5 50Pin/CSF-2082-501R or Equivalent.
4. CN2:P0.5 40Pin H2.0/089H40-000000-G2-C or Equivalent.

Back View

- 100.0±0.3 (LCM)
- (52.265±0.3)
- (34.45)
- 130.0±0.3 (PCB)
- 68.03±1.0
- P0.5×49
- 3.8±1.0
- (0.45)
- 164.9±0.3 (LCM)
- (80.96±0.3)
- Capton tape
- 2-Conductive fabric 7.0×15.5mm
- 50 CN1 1
- 40 CN2 1
- 20.25±1.0
- P0.5×39
- 25.95±1.0
- (39.55)
- 60.0±0.3 (PCB)

REV	REVISION RECORD	DATE	NAME
0	NEW RELEASE	03-16-16'	Di-Wen

		TOLERANCE GRADE(±)	A	B	DIM.		
1	80480AW-50 LCM				MM		
2	MCU Board				IB NO.		
3							

| | | | | PARTS NO.LCM-1 | | | |
| PARTS NO.LCM-1 80480AW-50-B | | | | | | | |

DWN. Di-Wen DATE 03-16-16'
CHK. DATE
APPD. DATE

TITLE: 80480AW-50-B (7.0"+MCU Board)
DWG. NO. *160360MA SHEET 1 OF 1
AMPIRE 晶采光電科技