深圳市宝安区华威显示厂

HUA WEI DISPLAY SYSTEM ELECTRONICS CO., LTD

Tel: +86-0755-29951125
Fax:+86-0755-27884399

SPECIFICATIONS

FOR

LCD MODULE

Customer: _____

Model name: _____ HW480272F-0B-0A _____

Description: LIQUID CRYSTAL DISPLAY MODULE _____

Date: _____ 2008-12-24 _____

CUSTOMER APPROVAL

Customer Approval	☐ Accept ☐ Reject comment: Approved by: _____

SUPPLIER APPROVAL

APPROVED	CHECKED	ORGANIZED
何俊光		刘兰芬

1、OTHERS：

    APPROVAL FOR SPECIFICATIONS ONLY

    APPROVAL FOR SPECIFICATIONS AND SAMPLE

    NOTE: VERSION OF SPECIFICATIONS: 00

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2、 OTHERS:

History of revision

Revision	Contents	Date	Note
01	**New Revision**	2008-12-24	1.0

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1. Introduction And General Specifications

Liquid crystal Displays (LCDS) have widely used in many applications such as industrial measurements, office mechanisms, and household electronic–equipment etc. LCM (LCD Module) integrates with LCD and driving circuit that is easily to be interfaced by user. This LCM contains a standard built-in dot –matrix font set.

1.1 Applications of LCM

Telephone
Facsimile mechanism
Electronic Typewriter
Word processor
Electronic memo pads
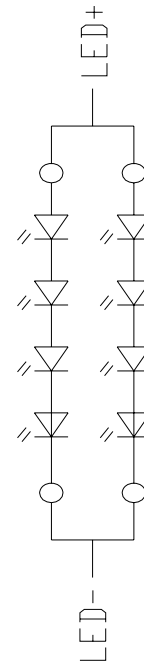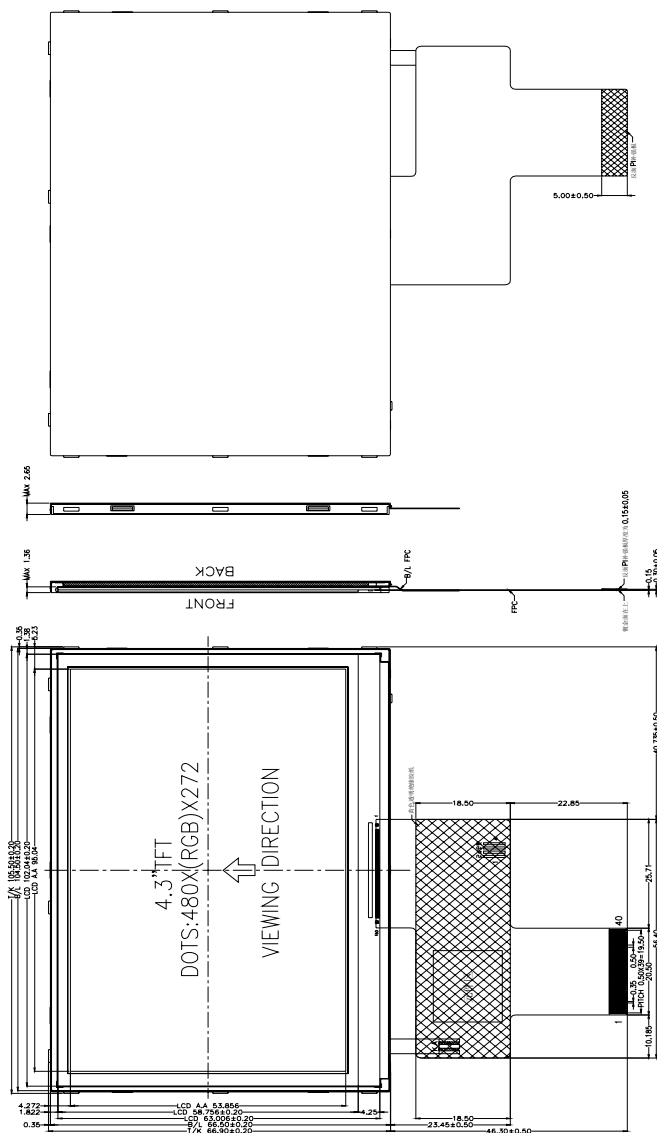Remote controller

1.2 Features of LCM

Compact, thin and light
Wide view angle
Low power consumption
High contrast image
Wide operating temperature
High reliability

1.2 General specification

Parameter	Value	Unit
Display Mode	Normal white TN	-
Display Resolution	480*RGB*272	pixels
Pixel Arrangement	RGB-stripe	-
Viewing Direction	6 o' clock	
Display Mode	Normally white	
IC Package Type	COG	-
MPU Interface	24-bit parallel RGB interface	-
Power Supply Voltage	2.8~3.3	V
Back-light	White LED*8	pcs

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2. LCD&LCM Outline Drawing

PIN	SIGNAL	PIN	SIGNAL
1	VLED–	21	B0
2	VLED+	22	B1
3	GND	23	B2
4	VDD	24	B3
5	R0	25	B4
6	R1	26	B5
7	R2	27	B6
8	R3	28	B7
9	R4	29	GND
10	R5	30	DCLK
11	R6	31	DISP
12	R7	32	HSYNC
13	G0	33	VSYNC
14	G1	34	DE
15	G2	35	NC
16	G3	36	GND
17	G4	37	XR
18	G5	38	YD
19	G6	39	XL
20	G7	40	YU

MODEL NAME: HW480272F-0B-0A
TITLE: LCM
FILE NAME: E://480272

TOLERANCE ±0.2
SCALE 1:1
NO. 1/1
UNIT mm
DRAWN LILAC
VERSION A
DATE 2008.12.03

HUAWEI Display System — The LCD Specialist

4.3"TFT
DOTS:480X(RGB)X272
VIEWING DIRECTION

NOTES:
1. DISPLAY TYPE : TFT 262K
2. POLARIZER MODE : TRANSMISSIVE/NEGATIVE
3. DRIVE METHOD : 1/272DUTY
4. VIEWING DIRECTION: 6 O'CLOCK
5. MAIN LCD BACKLIGHT : 8-CHIP WHITE LED
6. OPERATING TEMP : -20°C~60°C
7. STORAGE TEMP : -30°C~80°C
8. OPERATING VOLTAGE : 14.0V
9. LED OPERATING VOLTAGE : 13.0 V

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3. 24-bit Interface pin Connections Circuit Block Diagram

PIN NO.	SYMBOL	DESCRIPTION
1	VLED-	Backlight LED power supply (cathode)
2	VLED+	Backlight LED power supply (Anode)
3	GND	Ground
4	VDD	Power Supply
5-12	R0-R7	Red data bit line,(对于16bpp显示模式，RGB=5:6:5时， R0-R2: NC, R7为高位).
13-20	G0-G7	Green data bit line, (对于 16bpp 显示模式，RGB=5:6:5 时，G0-G1: NC, G7 为高位).
21-28	B0-B7	Blue data bit line,　 (对于16bpp显示模式，RGB=5:6:5时，B0-B2: NC, B7为高位).
29	GND	Ground
30	DCLK	Clock signal, The input data is latched on the rising edge of CLK.
31	DISP	NC
32	HSYNC	In esternal interface mode, served as a horizontal synchronizing signal input;
33	VSYNC	In external interface mode , served as a vertical synchronizing signal input;
34	DE	Data Enable
35	NC	Not Connected
36	GND	Ground
37	XR	Touch panel XR
38	YD	Touch panelYD
39	XL	Touch panel XL
40	YU	Touch panel YU

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4. 24-bit parallel RGB interface

Parallel RGB Mode Data format
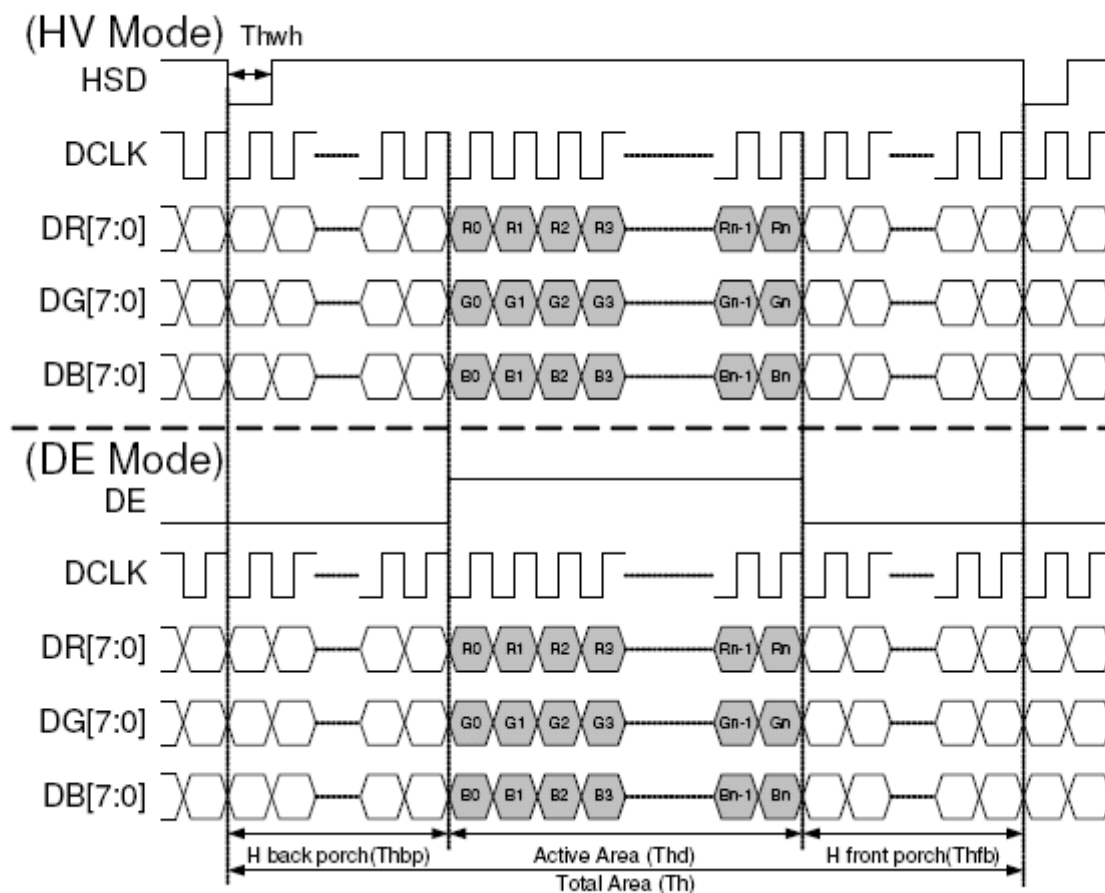
Parallel RGB input timing table

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
DCLK frequency	fclk	5	9	12	MHz
VSD period time	Tv	277	288	400	H
VSD display area	Tvd		272		H
VSD back porch	Tvb	3	8	31	H
VSD front porch	Tvfp	2	8	93	H
HSD period time	Th	520	525	800	DCLK
HSD display area	Thd		480		DCLK
HSD back porch	Thbp	36	40	255	DCLK
HSD front porch	Thfp	4	5	65	DCLK

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Parallel RGB Mode

Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
DCLK frequency	Fclk	5	9	12	MHz	
DCLK cycle time	Tclk	83	110	200	ns	
DCLK pulse duty	Tcwh	40	50	60	%	
Time from HSD to source output	Thso	-	13	-	DCLK	
Time from HSD to gate output	Thgo	-	27	-	DCLK	
Time from HSD to gate output off	Thgz	-	3	-	DCLK	
Time from HSD to VCOM	Thvc	-	12	-	DCLK	

5. Power sequence

Power on/off sequence:

This IC is a high-voltage LCD driver, so it may be damaged by a large current flow if an incorre... power sequence is used. Connecting the drive powers, VEE & VGG, after the logical power, VCC, is ... recommended sequence. When shutting off the power, first shut off the drive power and then the lo... system or turn off all power simultaneously.

■ Power on sequence
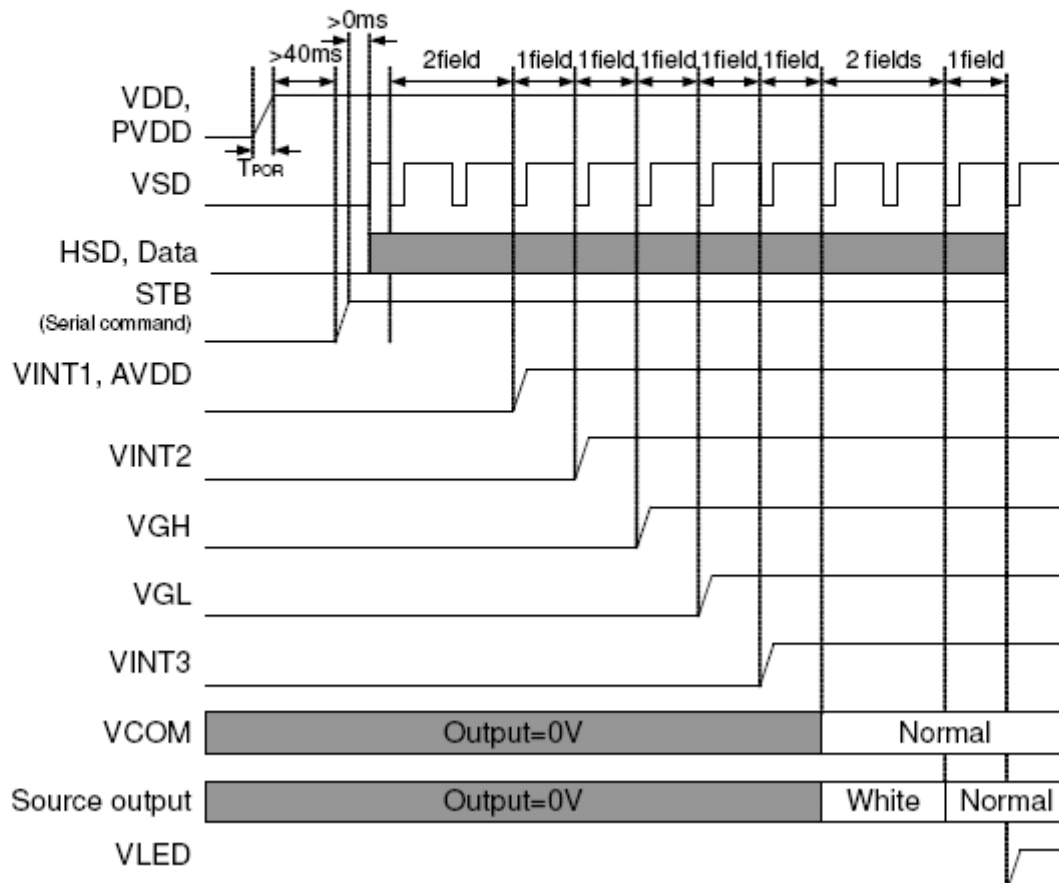
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■ **Power off sequence**
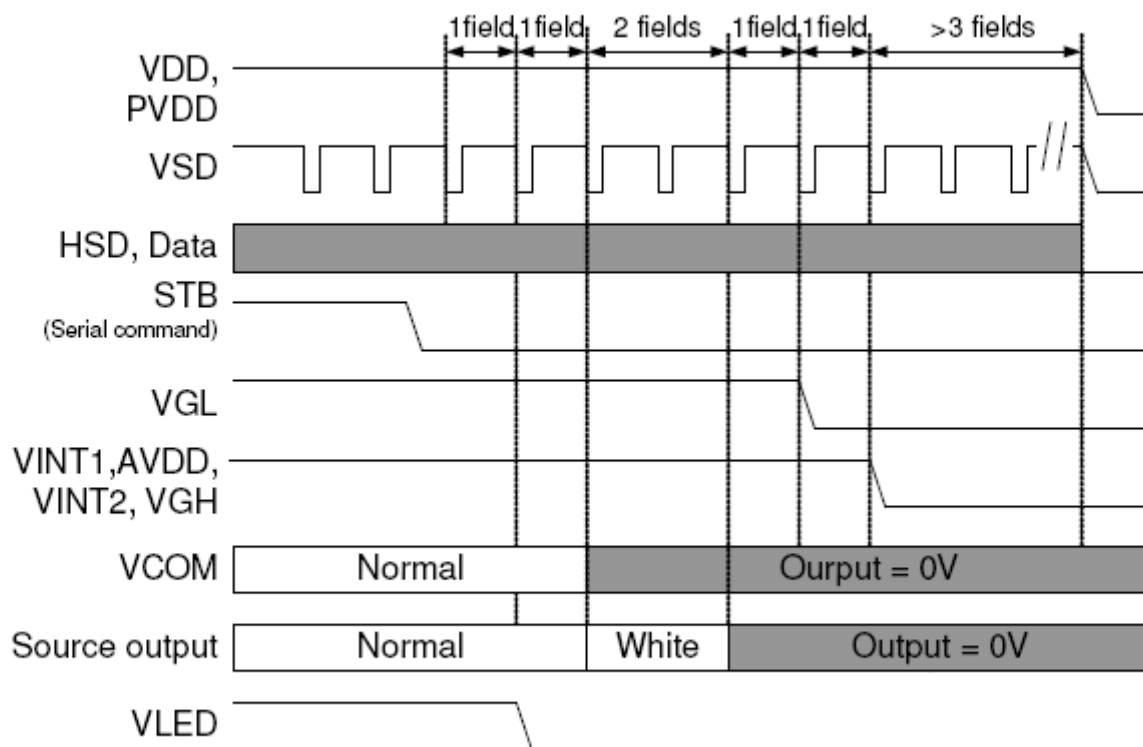
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6. Notice packing method

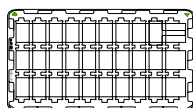Pack the products so that they may not touch each other.

Put the inner cartons containing module into outer carton.

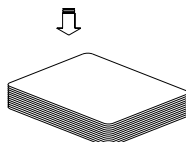Attach the display label on the visible location on the outer carton.
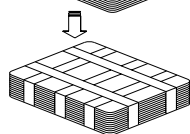
REV	REVISION RECORD	DATE	APPROVED	NAME
⚠				

一．内箱包装：

1.将完成终检的产品放入吸塑盘内

2.将装满产品的吸塑盘交叉叠放后,加一个空盘为盖

3.用胶纸捆绑叠放好的吸塑盘
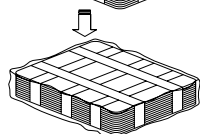
5.装入内箱,并用胶纸以″工″字型封内箱

4.将捆好的吸塑盘放入胶袋并封口
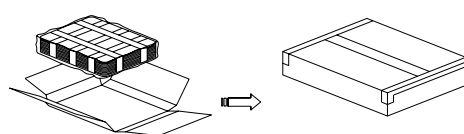
二．外箱包装：

1.将两个内箱装入外箱
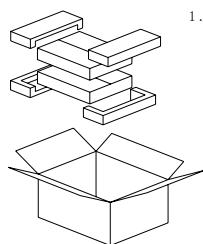
2.封好外箱,贴上标签
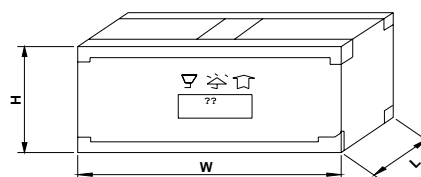
	HUAWEI Display System The LCD Specialist		TOLERANCE ±0.2	MATERIAL	FINISH	MODEL NAME
		VERSION	SCALE	NO.	UNIT	TITLE
		DATE	APPROVED	CHECKED	DRAWN	FILE NAME