



LCM-TFT056T1VGM2N30F

产品名称 (Product name) : MIPI 接口 TFT 液晶模块
型 号 (Model) : LCM-TFT056T1VGM2N30F
编 号 (Part number) : 20200604001
日 期 (Date) : 2020-6-4

深圳市鑫洪泰电子科技有限公司

Shenzhen Hot Display Technology Co.,Ltd

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编码: QR-R-011 A/0

序号:

Rev	Descriptions	Date
01	Prelimiay Release	2020-6-4

1. Basic Specifications

No.	Item	Specification	Unit	Remark
1	LCD Size	5.6" (Diagonal)	inch	-
2	Panel Type	a-Si TFT active matrix	-	-
3	Resolution	640x(3RGB)x480	pixel	-
4	Display Mode	Normally white, Transmissive	-	-
5	Viewing Direction	All direction	-	-
6	Luminance	250	cd/m ²	-
7	Module Size	126.5(W) × 100.0(H) × 9.5(D)	mm	Note 1
8	Weight	TBD	g	-
9	Driver IC	MIPI-RGB Bridge	-	-
12	Light Source	3x5 White LEDs	-	-
13	Interface	MIPI DSI 2-LANS	°C	-
14	Operating Temperature	-20~70	°C	-
15	Storage Temperature	-30~80	°C	-

Note 1: Please refer to the mechanical drawing.

2. Pin Assignments

Pin No.	Name	Function
1-3	VDD	Power supply +5V.
4	GND	Power ground 0V.
5-6	NC	--
7	GND	Power ground 0V.
8	NC	--
9	GND	Power ground 0V.
10	BL_PWM	PWM for LCD Backlight Dimming.
11	GND	Power ground 0V.
12	BL_EN	Backlight Enable.
13	/RES	Active low reset to the LCM.
14	NC	--

15	GND	Power ground 0V.
16-17	NC	--
18	GND	Power ground 0V.
19-20	NC	--
21	GND	Power ground 0V.
22	DATAN1	Negative differential data1 for DSI.
23	DATAP1	Positive differential data1 for DSI.
24	GND	Power ground 0V.
25	DATAN0	Negative differential data0 for DSI.
26	DATAP0	Positive differential data0 for DSI.
27	GND	Power ground 0V.
28	CLOCKN	Negative differential clock for DSI.
29	CLOCKP	Positive differential clock for DSI.
30	GND	Power ground 0V.

3. DSI System Interface

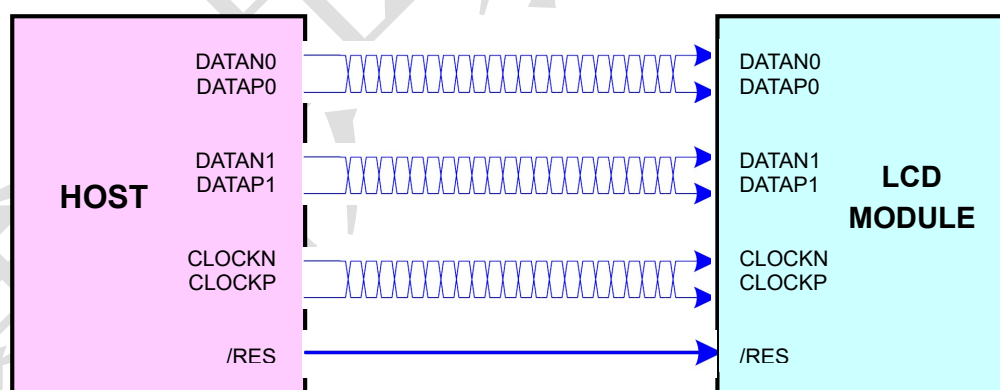


Figure 3-1 DSI System Interface

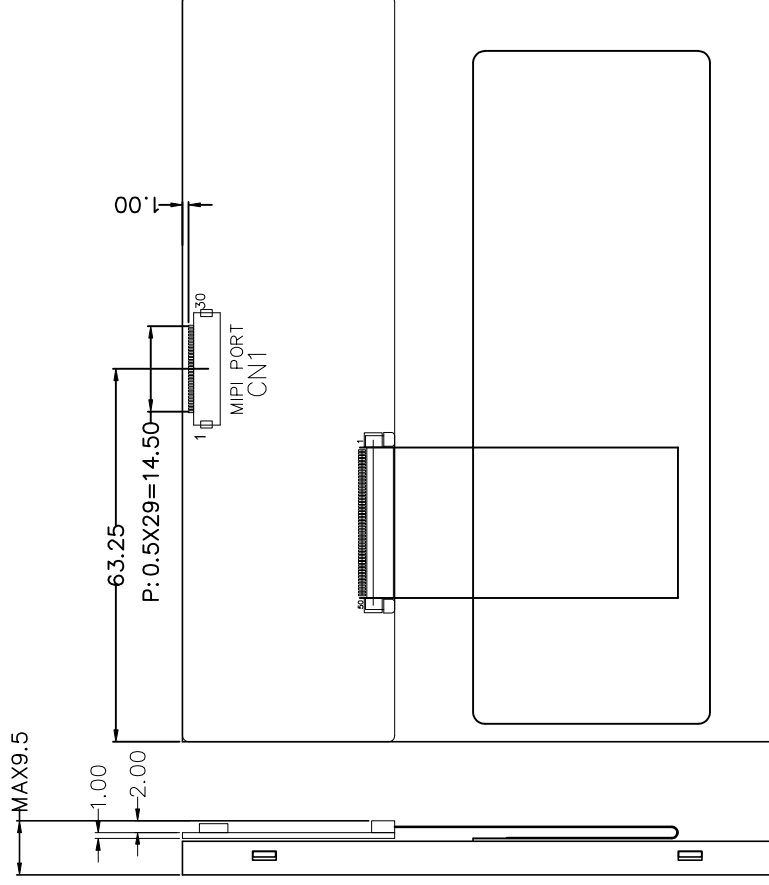
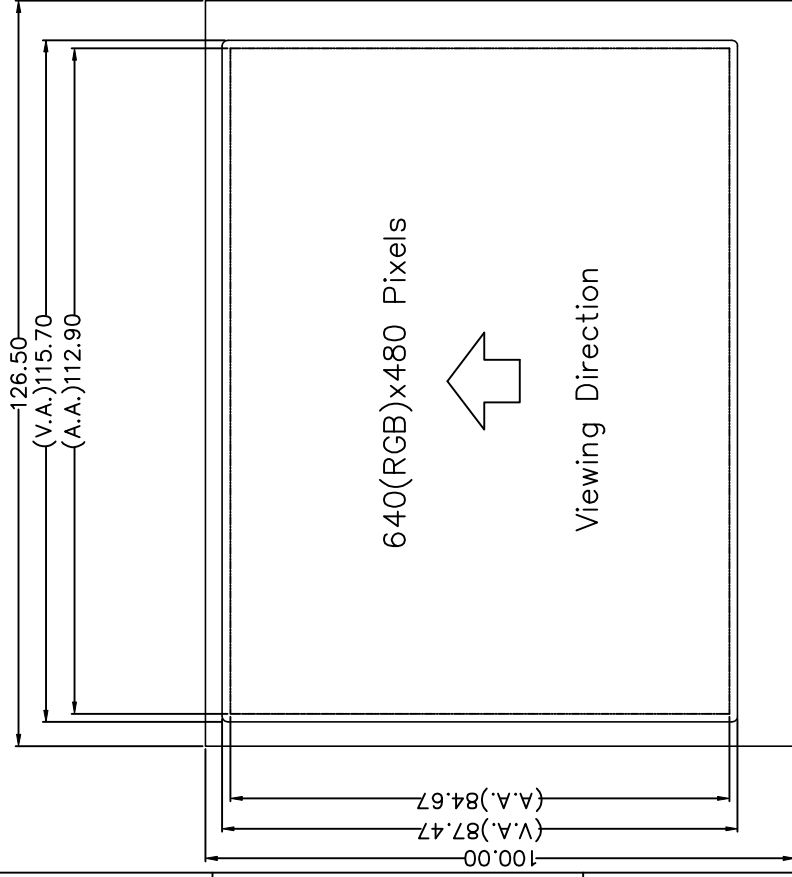
4. Absolute Maximum Ratings

Items	Symbol	MIN.	MAX.	Unit	Condition
Supply Voltage	VDD	-0.3	+12	V	VSS = 0V
Input Voltage	DSI input	-0.5	1.4	V	VSS = 0V
Operating Temperature	TOP	-20	+70	°C	No Condensation
Storage Temperature	Tst	-30	+80	°C	No Condensation

5. Electrical Characteristics

5.1 DC Characteristics

Parameter	Description	Min.	Typ.	Max.	Unit
VDD	Operating Voltage	4.8	5	12	V
VIL	Low Power logic 1 input voltage	880	-	-	mV
VIH	Low Power logic 0 input voltage	-	-	550	mV
VID	HS differential input voltage: Vdp- Vdn	70	200	270	mV
VIDT	HS differential input voltage threshold	-	-	50	mV
VIL-ULPS	Low Power receiver logic 0 voltage, ULP state	-	-	300	mV
VCMRX(DC)	Common-mode voltage HS receive mode	70	-	330	mV
△VCMRX(HF)	HS common-mode interference	-	-	100	mV
VIHHS	HS single-ended input high voltage	-	-	460	mV
VILHS	HS single-ended input low voltage	-40	-	-	mV
VTERM-EN	Single-ended threshold for HS termination enable	-	-	450	mV
ZID	Differential input impedance	80	100	124	Ω



		COM1	
No.	Name	Description	
1-3	VDD	POWER SUPPLY +5.0V.	
4	GND	GROUND DV.	
5	NC	-	
6	NC	-	
7	GND	GROUND DV.	
8	NC	-	
9	GND	GROUND DV.	
10	BL_PWM	PWM for LCD Backlight Dimming.	
11	GND	GROUND DV.	
12	BL_EN	Backlight Enable.	
13	LCD_RST	ACTIVE LOW RESET TO THE LCM.	
14	NC	-	
15	GND	GROUND DV.	
16	NC	-	
17	NC	-	
18	GND	GROUND DV.	
19	NC	-	
20	NC	-	
21	GND	GROUND DV.	
22	DIN	NEGATIVE DIFFERENTIAL DATA1 FOR DS1.	
23	DIP	POSITIVE DIFFERENTIAL DATA1 FOR DS1.	
24	GND	GROUND DV.	
25	DON	NEGATIVE DIFFERENTIAL DATA0 FOR DS1.	
26	DOP	POSITIVE DIFFERENTIAL DATA0 FOR DS1.	
27	GND	GROUND DV.	
28	CLOCK	NEGATIVE DIFFERENTIAL CLOCK FOR DS1.	
29	GLOCKP	POSITIVE DIFFERENTIAL CLOCK FOR DS1.	
30	GND	GROUND DV.	

HOT DISPLAY

*1. LCD DISPLAY TYPE	5.6" TFT/TRANSMISSIVE/NORMAL WHITE.	
*2. VIEWING DIRECTION	ALL DIRECTION	*6. OPERATING TEMP -20°C~70°C
*3. LCD DRIVER IC	MIPI-RGB Bridge	*7. STORAGE TEMP -30°C~80°C
*4. OPERATING VOLTAGE	5V	*8. BACKLIGHT WHITE Vf=5V If=100mA
*5. INPUT DATA	MIPI DSI(2-LANS)	*9. Luminance 250 CD/m2

Dwg Title: LCM - TFT056T1VGM2N30F - V01				
EDC No:		Ver: A/0		
Scale 1:1	Unit mm	Tol. ± 0.3		
Drawn	Checked	Date:	2020-01-15	