

产品型号(Product Type): HDMI101H-1280800A-N

客户名称 (Customer): _____

客户料号 (Part No): _____

发布日期 (Date issued): _____

Confirmed/确认	Approved/批准	Signature/签章
陈瑞波	叶庆青	

客户确认

Confirmed/确认	Approved/批准	Signature/签章

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1 - Profile

HDMI101H-1280800A-N is a 10.1 inch TFT LCD display control module which integrated with LCD screen, capacitive touch screen and HDMI driving board. It perfectly presents the HDMI digital signal output from the PC on the 1280*800 LCD display.

- *Support: Innolux 10.1 inch LVDS screen interface signal output.
- *SUPPORT: OSD MENU FIVE KEYS (POWER.MENU.UP.DOWN.EIXT).
- *Support: OSD language (Chinese Simplified/English).
- * Support: I2C to USB touch screen (capacitive screen) single touch, multi-touch.
- * Support: Windows/Raspberry Pi/ATK/set-top box/DVD and other HDMI signal sources.
- *Support: DC-5V USB-5V2A input.
- *Audio Support: 8Ω 1.5W*2
- *The software on the motherboard supports online updates.

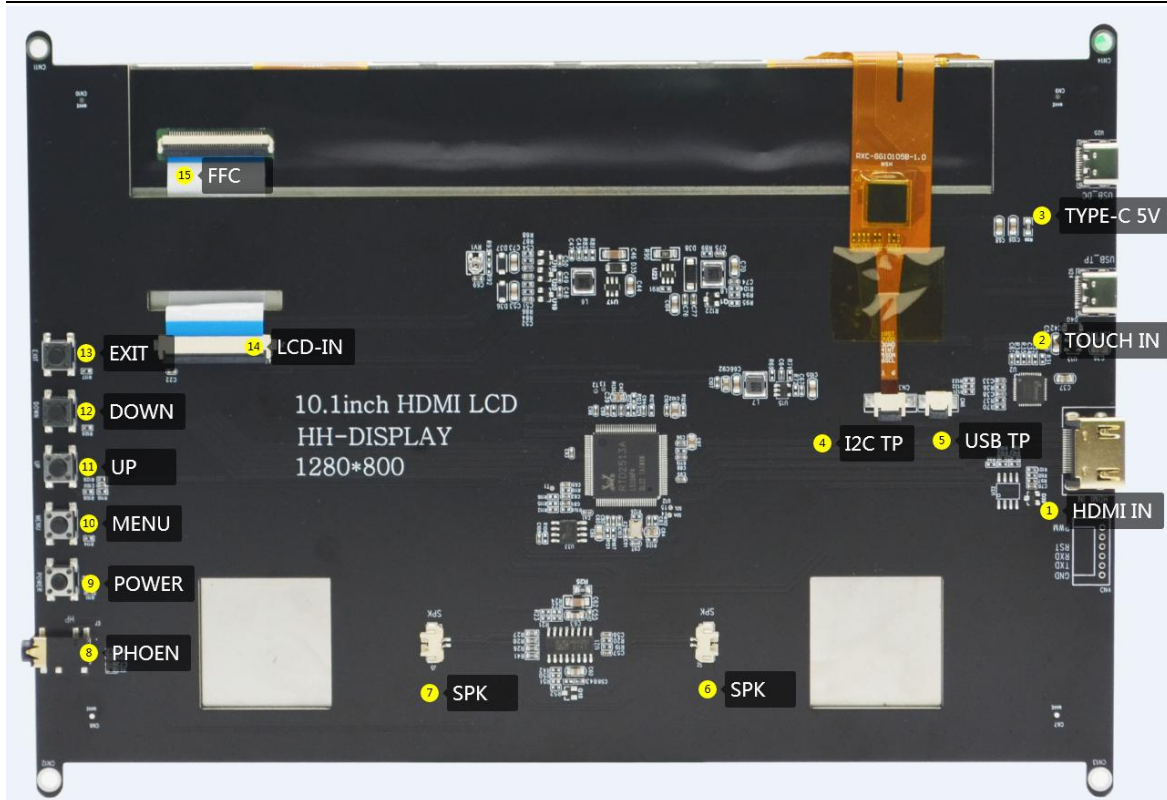
2- Characteristics

Product Features:

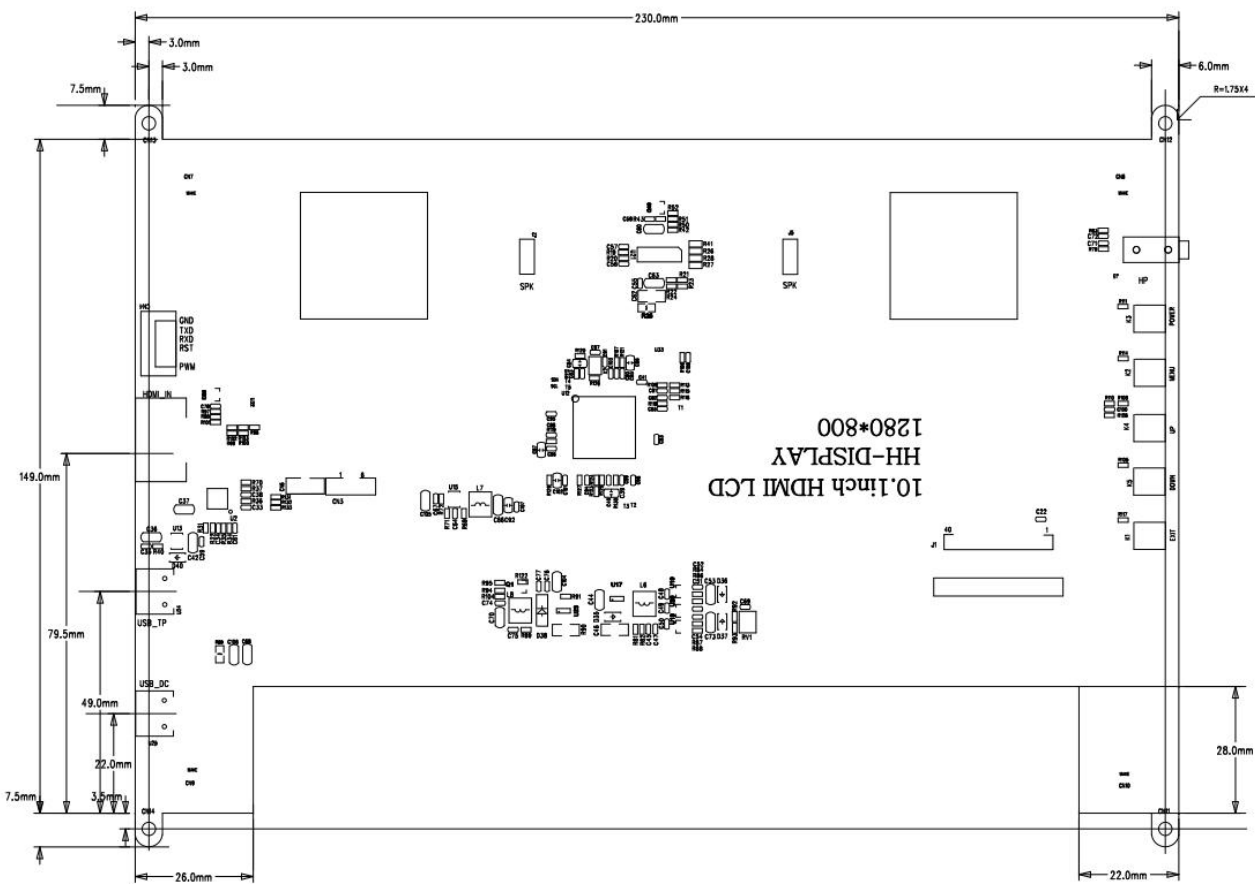
Version:	1		
Signal supported	HDMI	480i,480p,576i,576p,720p,1080i,1080p	
	TOUCH	USB standard	
	VGA	Not support	
Main board interface	input	HDMI	A型HDMI贴片母座19Pin贴片 (卧式) Type A HDMI Patch Female Base 19Pin Patch (Horizontal)

		USB	USB插座AF母座90度直脚无边（卧式） USB socket AF female base 90 degree straight foot infinity (horizontal)
		Headphone jack	Not Support
	Touch screen interface	Custom 6P pins	FPC-0.5-6PIN 后锁（卧式） FPC-0.5-6PIN Rear Lock (Horizontal)
	LCD interface	Standard LVDS 40P	FPC-0.5-40PIN 后锁（卧式），FPC-0.5-40PIN rear lock (horizontal))
Touch panel interface	I2C to USB	USB drive free	USB插座AF母座90度直脚无边（卧式），USB socket AF female base 90 degree straight foot infinity (horizontal)
Power	Input power	USB输入5V（+/-0.5V），USB input 5V (+/-0.5V)	
	Drive screen voltage	3.3V	
	Power operation	Power-on power on display	
	Motherboard standby power consumption	<0.25W	
OSD menu	Not support		
	Not support		
	Not support		

3- Outline of A/D driving board



4- Structure and Dimension (unit: mm)



◆ Control board PCB related dimensions and specifications.

1、 **PCB** thickness + maximum height of the highest component
≤7.8mm

2、 **PCB** length=230mm

3、 **PCB** width=149mm

4、 **PCB** thickness=1.6mm

◆ Screw hole specification: diameter 2.0mm The size and coordinates of the screw hole are shown in the structure diagram

◆ **Display Module dimension without driving board:** (L*W*H)

229.46 ×149.1 ×2.5 mm without touch,

229.46 ×149.1 ×4.03 mm with PCAP touch.

5- TFT LCD Specification

5-1, TFT LCD parameter:

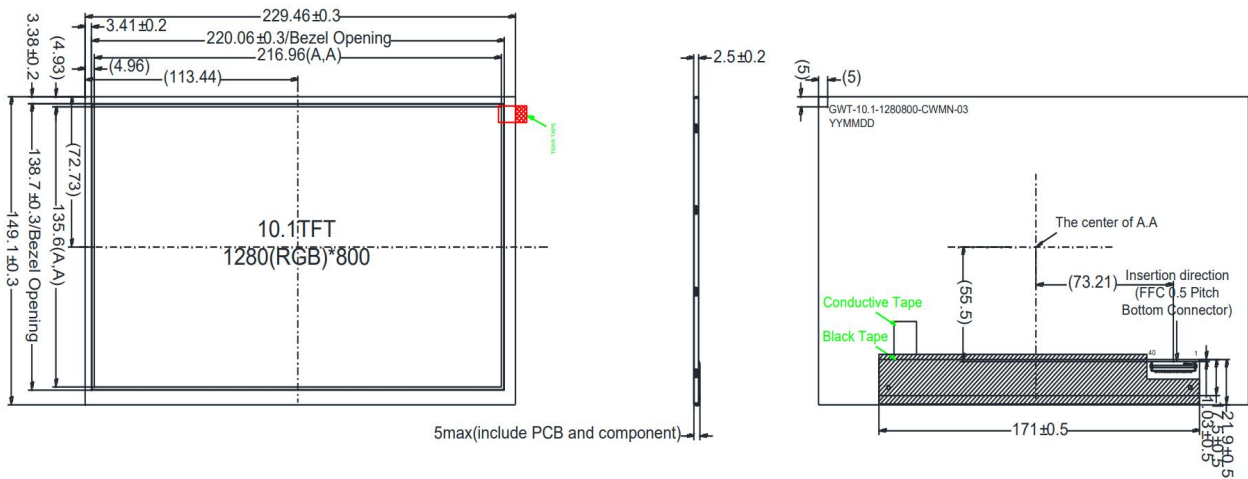
Features	Details	Unit
Display Size(Diagonal)	10.1"	
LCD type	IPS TFT	
Display Mode	Transmissive/ Normally Black	
Resolution	1280 RGB x 800	Pixels
View Direction	FULL VIEWING	Best Image
Module Outline	229.46 (H) x149.1(V) x 2.5(T) (Note1)	mm
Active Area	216.96 (H) x 135.6(V)	mm
Pixel Size	169.5 (H) x 169.5(V)	um
Pixel Arrangement	RGB Stripe	
Surface treatment	Hard coating(3H)	
Display Colors	16.7M	
Interface	8 bits-LVDS interface	
With or Without Touch Panel	Without	
Operating Temperature	-20~70	℃
Storage Temperature	-30~80	℃
Weight	182	g

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

5-2, Optical Characteristics

	Item	Symbol	Condition	Specification			Unit	
				Min.	Typ.	Max.		
Backlight On (Transmissive)	Luminance on TFT(I _f =20mA/LED)	Lv	Normally viewing angle θ _x = φ _y =0°	360	420	-	cd/m ²	
	Contrast ratio(See 6.3)	CR		600	800	-		
	Response time (See 6.2)	T _R +T _F		-	25	50	ms	
	Chromaticity Transmissive (See 6.5)	White	Xw					
			Yw					
	Viewing Angle (See 6.4)	Horizontal	θ _{x+}	Center CR≥10	75	85	-	Deg.
			θ _{x-}		75	85	-	
		Vertical	φ _{y+}		75	85	-	
			φ _{y-}		75	85	-	
	NTSC Ratio(Gamut)				-	50	-	%

5-3, TFT LCD (only) outline drawing



6- Input and output pin definition

① HDMI interface pin definition:

1	T.M.D.S DATA2+
2	T.M.D.S DATA2 shielded屏蔽
3	T.M.D.S DATA2-
4	T.M.D.S DATA1+
5	T.M.D.S DATA1 shielded屏蔽
6	T.M.D.S DATA1-
7	T.M.D.S DATA0+
8	T.M.D.S DATA0 shielded屏蔽
9	T.M.D.S DATA0-
10	T.M.D.S DATA CLOCK+
11	T.M.D.S DATA CLOCK shielded屏蔽
12	T.M.D.S DATA CLOCK-
13	CEC (Consumer Electronics Control, Optional electronic consumer controller可选择的电子消费控制器)
14	Reserved (in cable but N.C. on device)
15	SCL(DDC Clock)
16	SDA(DDC data)
17	DDC/CEC Ground
18	+5V power
19	Hot-swappable probe wires热插拔探测线

② TOUCH IN (TYPE-C 16P) interface pin definition

1	GND
2	GND
3	VCC
4	VCC
5	NC
6	NC
7	DM
8	DP
9	DM
10	DP
11	NC

12	NC
13	VCC
14	VCC
15	GND
16	GND

③ USB 5V IN (TYPE-C 16P) interface pin definition

1	GND
2	GND
3	VCC
4	VCC
5	NC
6	NC
7	NC
8	NC
9	NC
10	NC
11	NC
12	NC
13	VCC
14	VCC
15	GND
16	GND

④ I2C-TP interface pin definition (FPC-0.5-6P)

1	VDD
2	GND
3	TP_INT
4	TP_SCL
5	TP_SDA
6	TP_RST

⑤ USB-TP interface pin definition (FPC-0.5-4P)

1	GND
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2	DM
3	DP
4	VCC

⑥+⑦ Speaker interface pin definition (2P-1.25)

1	LOUT+
2	LOUT-
1	LOUT-
2	LOUT+

⑧ HeadPhone (PJ-342-6P 3.5 Headphone connector)

⑨-13 (OSD Keystrokes 6*6*5)

POWER-MENU-UP-DOWN-EXIT

开关-菜单-上-下-退出

7, Transportation, storage, use requirements

In order to ensure the normal use of this product and prevent accidents such as electric shock or fire, please read and understand all the requirements and operating procedures before using this product. The following requirements are strictly observed:

1. The DC power supply required by this product is generated by the AC/DC power adapter, and the AC/DC power adapter should be kept away from the heat source and placed in a well-ventilated place.
2. AC power socket and AC power cord should pay attention to good grounding and can withstand sufficient current demand.
3. The input voltage of the DC power supply required by this product is +12V, the error is not more than +/-0.5V, and the current is determined according to the selected LED screen and the power of the whole machine.
4. Pay attention to good ventilation and heat dissipation, do not place in a closed non-thermal shell or box, and do not let direct sunlight or other heat sources bake.

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5. Pay attention to avoid excessive humidity and excessive dust, so as to avoid circuit corrosion causing failure.
 6. When assembling, pay attention to reserve a certain space to provide air convection on the board surface to dissipate heat, and prevent electrical conductors (such as fixed iron plates such as drive boards and high-voltage plates) and components on the board from contacting short circuits.
 7. Pay attention to prevent the drive plate from bending and deforming due to additional pressure.
 8. When assembling, pay attention to the correct electrical connection of the drive board, LED screen, button board and other components, select the correct LED screen working voltage (too low will show abnormal, too high may burn out the LED screen), check that it is correct before powering on.
 9. The program on the driver board should match the corresponding LED screen.
 10. Pay attention to electrostatic protection when assembling the board, and pay attention to avoid short circuit and static electricity on the hand to damage the board.
 11. All input and output interfaces need to be operated in the case of power failure (plug and unplug connectors).
 12. This product is suitable for general commercial use and household, the ambient temperature: $-10\sim+40^{\circ}\text{C}$, relative humidity: $\leq 80\%$.
 13. Unplug the power when not in use for a long time.