

# 7-inch DIY Touch Screen

## General Information

Item of general information	Contents		Unit
LCD Display Size (Diagonal)	7		inch
Module Structure	CTP Touch + IPS LCD Display + PCB		-
LCD Display Type	TFT/TRANSMISSIVE		-
LCD Display Mode	Normally White		-
Viewing Direction	All		o'clock
Module Size (W×H×T)	165.30 × 121.00 × 7.75		mm
Active Area (W×H)	154.2144 × 85.92		mm
Number of Pixels(Resolution)	1024RGB × 600 IPS		pixel
Pixel Pitch (W×H)	0.1506 × 0.1412		mm
Color Pixel Arrangement	RGB Stripe		-
Module Interface Type	LCD Display	HDMI interface	-
	CTP Touch	USB interface	-
System Support	Win7/Win8/Win10 (Plug and play)		-
	Android/Linux (need to be configured first)		-
Power Supply	USB(5.0V)		-
Module Power Consumption	480(Typ.)		mA
Color Numbers	16.7M		-
Backlight Type	White LED		-

## Absolute Maximum Ratings

Parameter of absolute maximum ratings	Symbol	Min	Max	Unit
Operating Temperature	Top	-10	60	°C
Storage Temperature	Tst	-20	70	°C
Humidity	RH	-	90%(Max 60°C)	RH

Note: Absolute maximum rating means that the product can withstand short-term, not more than 120 hours. If the product takes a long time to withstand these conditions, the life time would be shorter.

Parameter of DC characteristics	Symbol	Min.	Typ.	Max.	Unit
PCB Operating Voltage	VUSB	-	5.0	-	V
LCD I/O Operating Voltage	VDD	3.0	3.3	3.6	V
Input Voltage 'H' Level	VIH	0.7*VDD	-	VDD	V
Input Voltage 'L' Level	VIL	VSS	-	0.3*VDD	V
Output Voltage 'H' Level	VOH	VDD-0.4	-	VDD	V
Output Voltage 'L' Level	VOL	VSS	-	VSS+0.4	V

## CTP Characteristics

Item of CTP characteristics	Specification	Unit	Remark
Panel Type	Glass Cover + Glass Sensor	-	-
Resolution	1024 × 600	pixel	-
Surface Hardness	≥6H	-	-
Transparency	> 82%	-	-
Driver IC	-	-	-
Interface Type	USB	-	-
Support Points	5	-	-

Sampling Rate	20~100	Hz	-
Supply voltage	3.3	V	-

## Interface Description

Symbol	DESCRIPTION
VUSB	USB Power
D-	USB Data-
D+	USB Data+
NC	No Connection
GND	Power Ground

## HDMI Interface Description

NO.	Symbol	DESCRIPTION
1	TMDS Data2+	Positive side of channel 2 TMDS low-voltage signal differential input pair
2	TMDS Data2 Shield	Ground
3	TMDS Data2-	Negative side of channel 2 TMDS low-voltage signal differential input pair
4	TMDS Data1+	Positive side of channel 1 TMDS low-voltage signal differential input pair
5	TMDS Data1 Shield	Ground
6	TMDS Data1-	Negative side of channel 1 TMDS low-voltage signal differential input pair
7	TMDS Data0+	Positive side of channel 0 TMDS low-voltage signal differential input pair
8	TMDS Data 0 Shield	Ground
9	TMDS Data0-	Negative side of channel 0 TMDS low-voltage signal differential input pair

10	TMDS Clock+	Positive side of reference clock. TMDS low-voltage signal differential input pair
11	TMDS Clock Shield	Ground
12	TMDS Clock-	Negative side of reference clock. TMDS low-voltage signal differential input pair
13	CEC	No Connection
14	Reserved(N.C.)	No Connection
15	SCL	DDC SCL
16	SDA	DDC SDA
17	DDC/CEC Ground	Ground
18	+5V Power	+5V Power
19	Hot Plug Detect	Hot Plug Detect

USB Interface Description Application Note: Please connect the USB first, and then connect the HDMI interface.

## Reliability Conditions

No.	Test Item	Test Condition
1	High Temperature Storage	70°C/120 hours
2	Low Temperature Storage	-20°C/120 hours
3	High Temperature Operating	60°C/120 hours
4	Low Temperature Operating	-10°C/120 hours
5	Temperature Cycle Storage	-10°C(30min.)~25(5min.)~60°C(30min.)× 10cycles

### A. Inspection after test:

Inspection after 2~4 hours storage at room temperature, the sample shall be free from

defects:

- Air bubble in the LCD;
- Seal leak;
- Non-display;
- Missing segments;
- Glass crack;
- Current is twice higher than initial value.

**B. Remark:**

- The test samples should be applied to only one test item.
- Sample size for each test item is 5~10pcs.
- Failure Judgment Criterion: Basic Specification, Electrical Characteristic, Mechanical Characteristic, Optical Characteristic.