Specification

Drive board model: JD567T123A+6124P

Driver board version： VER:1.00

LCD screen model： AT070TN90-18B

USER			MANUFACTURER		
QA	Project	Approved by	Prepared by	Checked by	Approved by

Catalogue

Revision

Date	Version	Content
2018-01-20	RD001	The first version

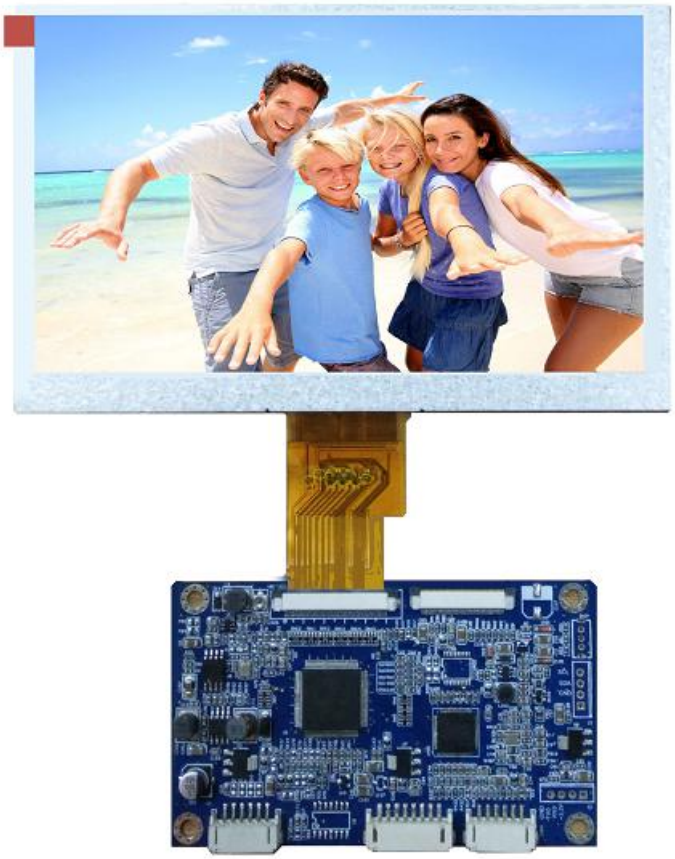
1、Profile:

JD567T123A + 6124P VER: 1.00-AT070TN90-18B color memory driver module consists of JD567T123A + 6124P VER: 1.00 memory driver board and (AT070TN90-18B) screen. Input CVBS and AHD signals, with PAL and NTSC two formats, it can achieved automatic recognition, press button to adjust color, brightness contrast, OSD menu support language (English). It is mainly used for video doorbell, video phone, building intercom and other display electronic devices.

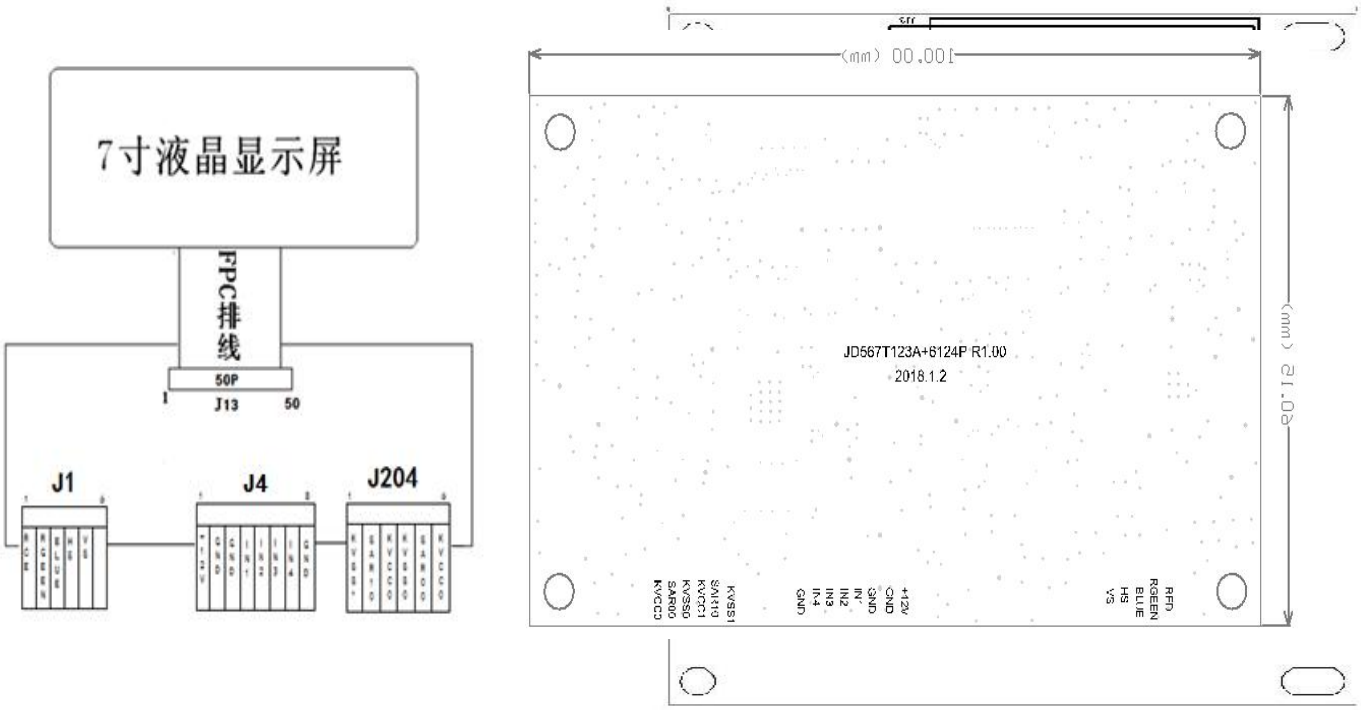
2、General Parameters:

No.	Item	Description	Remark
1	Size	7.0inch	
2	Display ratio	16:9	
3	Backlight	LED	
4	Brightness	210～260 cd /m^2	
5	Resolution	800×3(RGB)×480	
6	View angle（up,down,left,right）	（50/70/70/70）	
7	Display dimension	164.9（W）×100.0（H）×5.15（D）mm	
8	Effective display area	154.08（H）×85.92（V）mm	
9	Driving board dimension	100.0（W）×60.15（H）×9.2（D）mm	
10	Operating voltage (power ripple less than 0.3V_{P-P})	Min：DC9V；Standard：DC12V； Max：DC18V；	
11	Working current（DC 12V）	DC220mA±20mA	
12	Working consumption	2.64W（TYP）	
13	Start time	≤2.0s	
14	Working temperature	-10℃~60℃	
15	Storage temperature	-20℃~70℃	
16	Humidity	5~95％RH	

3、Product picture:



4、Wiring diagram:



5、Definition of driving board interface：

5.1、J13interface definition

Pin No.	Symbol	I/O	Function	Remark
1	VCOM	P	Common Voltage	
2	VDD	P	Power Voltage for digital circuit	
3	VDD	P	Power Voltage for digital circuit	
4	NC	--	No connection	
5	Reset	O	Global reset pin	
6	STBYB	O	Standby mode, Normally pulled high STBYB = “1”, normal operation STBYB = “0”, timing controller, source driver will	
7	GND	P	Ground	
8	RXIN0-	O	-LVDS differential data input	
9	RXIN0+	O	+ LVDS differential data input	
10	GND	P	Ground	
11	RXIN1-	O	-LVDS differential data input	
12	RXIN1+	O	+ LVDS differential data input	
13	GND	P	Ground	
14	RXIN2-	O	-LVDS differential data input	
15	RXIN2+	O	+ LVDS differential data input	
16	GND	P	Ground	
17	RXCLKIN-	O	-LVDS differential clock input	
18	RXCLKIN+	O	+ LVDS differential clock input	
19	GND	P	Ground	
20	RXIN3-	O	-LVDS differential data input	
21	RXIN3+	O	+ LVDS differential data input	
22	GND	P	Ground	
23	NC	--	No connection	
24	NC	--	No connection	
25	GND	P	Ground	
26	NC	--	No connection	
27	DIMO	O	Backlight CABC controller signal output	
28	SELB	O	6bit/8bit mode select	
29	AVDD	P	Power for Analog Circuit	

30	GND	P	Ground	
31	LED-	P	LED Cathode	
32	LED-	P	LED Cathode	
33	L/R	O	Horizontal inversion	
34	U/D	O	Vertical inversion	
35	VGL	P	Gate OFF Voltage	
36	CABCEN1	O	CABC H/W enable	
37	CABCEN0	O	CABC H/W enable	
38	VGH	P	Gate ON Voltage	
39	LED+	P	LED Anode	
40	LED+	P	LED Anode	

5.2、J1 interface definition

NO.	PIN	I/O/P	Description	Remark
1	RCE	I	Remote control input	
2	RGEEN	O	Signal output	
3	BLUE	O	Signal output	
4	HS	I	Voice signal input	
5	VS			

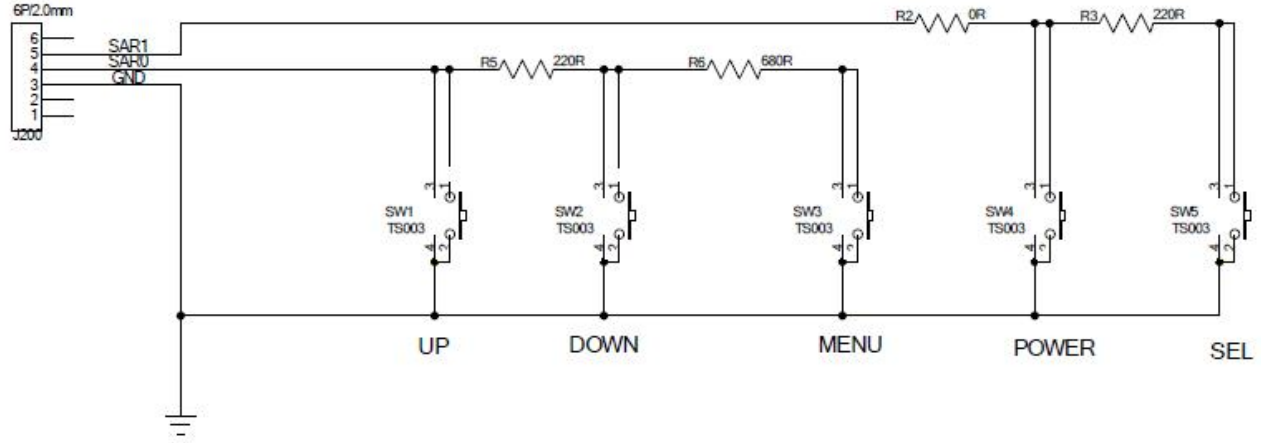
5.3、J4 interface definition

NO.	PIN	I/O/P	Description	Remark
1	+12V	I	+12V DC power input	9-15V
2	GND	P	GND	
3	GND	P	GND	
4	IN1	I	Signal input	CVBS+AHD
5	IN2	I	Signal input	CVBS+AHD
6	IN3	I	Signal input	CVBS+AHD
7	IN4	I	Signal input	CVBS+AHD
8	GND	P	GND	

5.4 、J204 interface definition

NO.	PIN	I/O/P	Description	Remark
1	KVSS1	O	GND	
2	SAR10	I	signal input	
3	KVCC1	I	power supply	
4	KVSS0	P	GND	
5	SAR00	I/O	signal input	NC
6	KVCC0	I	power supply	

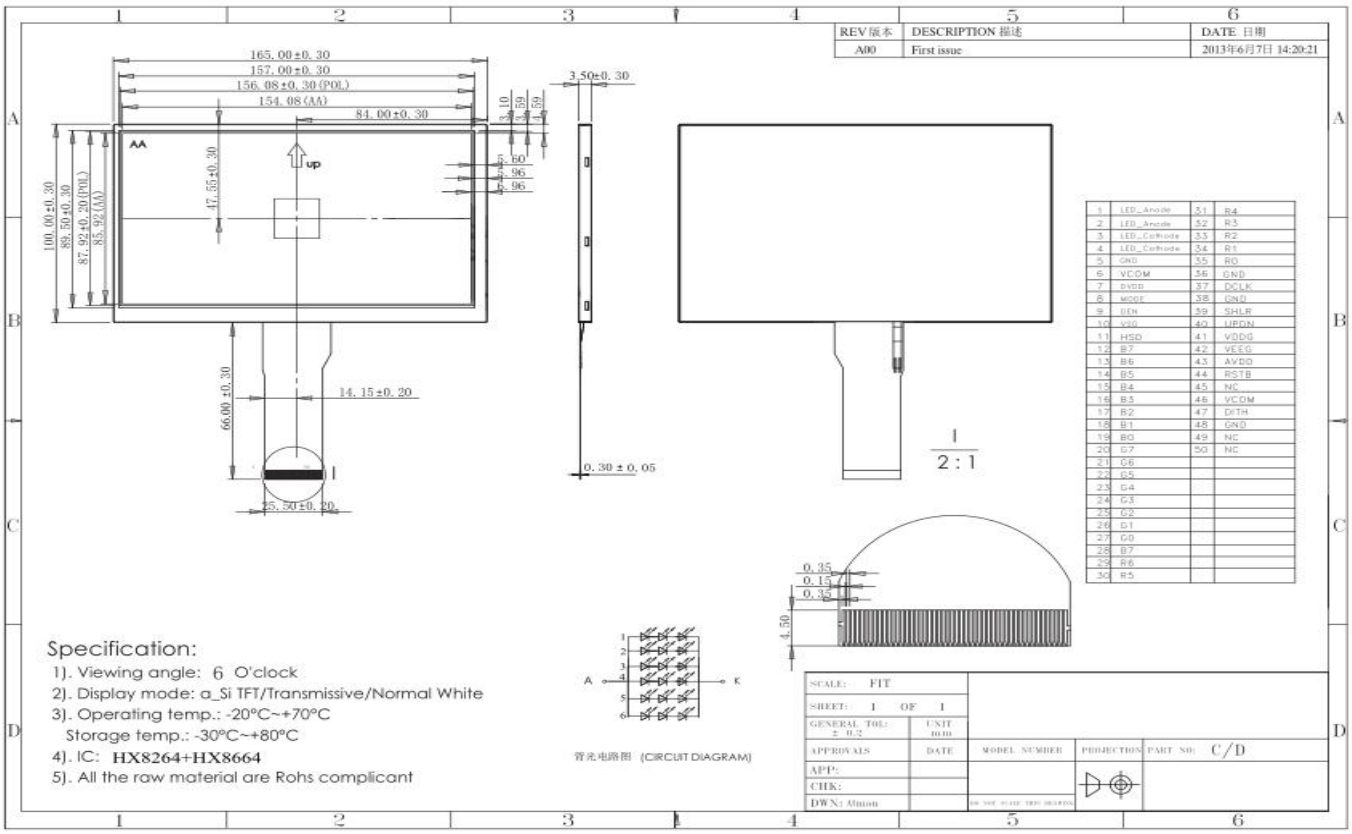
5.3.1、Key connection mode and operation description：



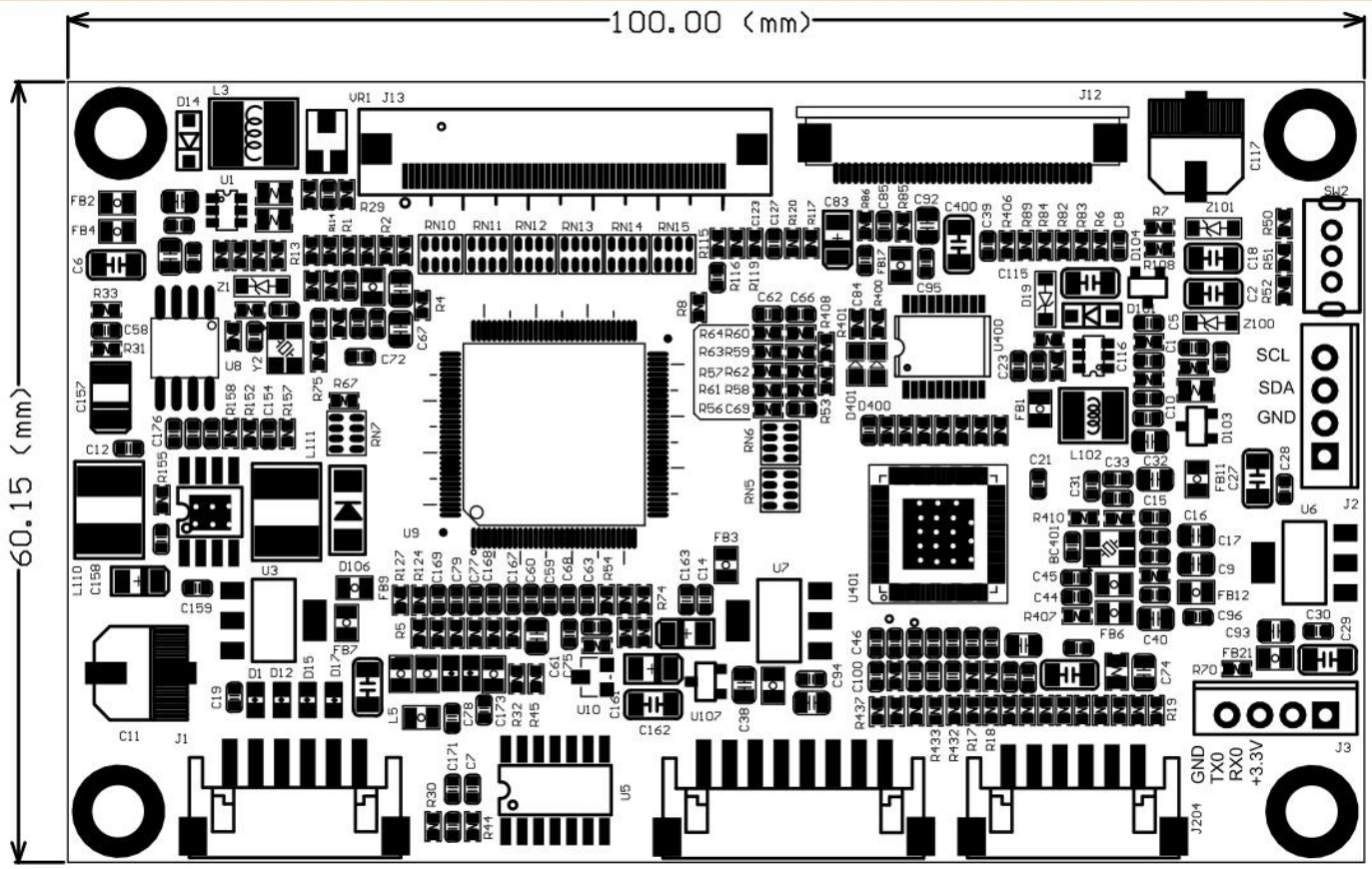
5.3.2、Keypad sequence as shown below:

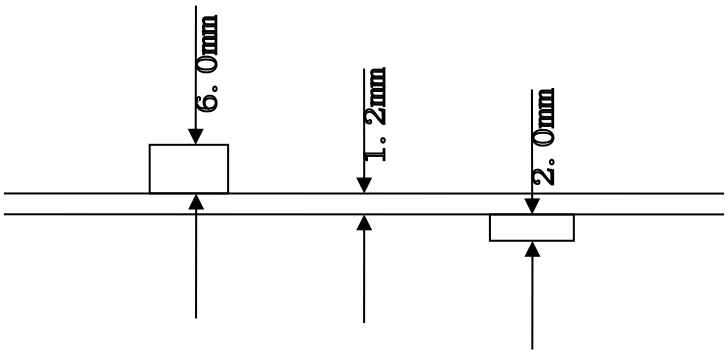
6、Structure:

6.1、TFT LCD Panel:



6.2、PCB size： 100.0(W)×60.15.0(H) ×9.2(D) mm


100.00 (mm)
60.15 (mm)
SCL
SDA
GND
GND
TX0
RX0
+3.3V


6.0mm
1.2mm
2.0mm

7、Product logo:

AT070TN90-18B

8、Packing、Transport and Storage

1、Packing

TBD

2、Transport and store

Don’t hit and rain when transportation； Don’t storage with chemical goods and wet goods together.

9、 JD567T123+6124P Notice

1. The TFT products were had precision testing and ageing test with the instrumentation before transport, so as it no need to adjust again.
2. Before adjusting, should connecting the power, video signal, and switch power correctly.

3. The products is electronics product, please attention for anti-static.

4、7.0" TFT - LCD PANEL is made of glass, take it careful to avoid break.

5、Adjust the potentiometer should pay attention to not touch the button pin, because the human body has a certain resistance, such as touch will affect the key function.

10、7.0 "TFT - LCD PANEL Inspection Standard:

Aim ： Make the panel standards to material purchasing, process inspecting and customer checking.

Ranges:：7″TFT LCD

Content:

10.1Determinant standard and method：

10.1.1、 The method and determinant of inspecting the nick of panel of LCD：

10.1.1.1、Inspect vertically (or at 45°angle from left/right) under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick, it determines “OK”, otherwise “NG”.

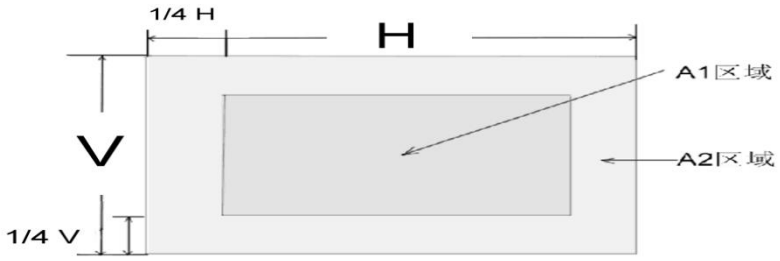
10.1.2、 The method and determinative for black & white & color spots for the Panel of LCD：

10.1.2.1、Inspecting method

10.1.2.1.1.Black spots：under the situation of “turn on the light”，set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

10.1.2.1.2、White & Color spots: under situation of “turn on the light”, set the Mask of black spot inspection on the white spot (or color spot) then observe them by eyes if it can hide.

10.1.2.2.Display area division



Remark：Area of A1：The center of the available area for the picture
Area of A2：The edge of the available area for the picture(around the area).

10.1.3.Determinant Choice:

Spot Diameter（mm）		Allowed Area	
		A1	A2
Black Spot	d≤0.15	Negate	Negate
	0.15<d≤0.3	4	4
	0.3<d≤0.5	2	3
	0.5<d<0.8	0	2
White or color spot	d≤0.15	Negate	Negate
	0.15<d≤0.3	3	3
	0.3<d≤0.5	1	2
	0.5<d<0.8	0	1

Remark：1. Size: Average Diameter=（Max. Diameter + Min. Diameter）/2

2. Using information above as a standard in order to judge while the e spots a dense.

3. Black & White spot：To judge the obvious spots through the change of voltage by comparison.

4. Total quantity of Black & white & color spot: A1+A2 ≤ 4.