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CERT. No.: 282Q19070712006

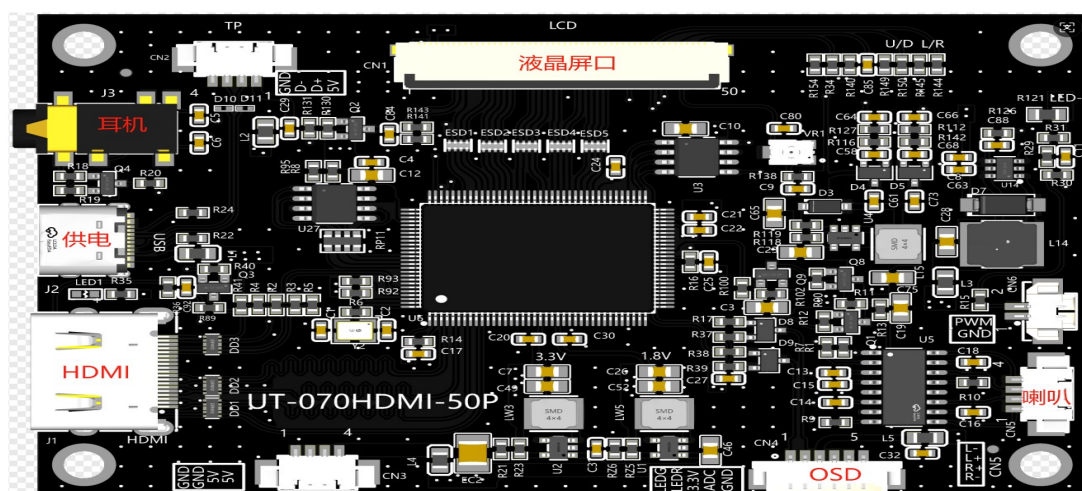
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Product Specification

Model: TBJ070HD-02

HDMI Display Board

This module uses ROHS material



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1. Record of Revision

Version	Revise Date	Content	Remark
V1.0	2024/06/10	-	-

2. General Specifications

TBJ070HD-02 driver board is a HDMI HD signal input, drive RGB single 50P LCD screen of high performance driver board. The driver board integrates HDMI interface input, TYPE-C interface power supply and USB touch, speaker power amplifier driver, 3.5 headphones, OSD function.

Feature		Spec
Characteristics	Size	-
	LCM Resolution supported(Max)	1024*600
	Pixel Configuration	R.G.B.-Stripe
	Interface	HDMI
	Power input	TYPE-C
	Signal input	HDMI 1.4
Mechanical	PCB (W x H)	90.0*62.0mm
	LCM connector	50PIN/0.5m
	HDMI connector	HDMI-A,19PIN

3. Electrical Characteristics

Item	Symbol	MIN	Typ	MAX	Unit
Supply Voltage	VDD	4.5	5.0	5.3	V
Direct Current	Idd	500	450	440	mA
Operating Temperature	TOPR	-20	-	70	℃
Storage Temperature	TSTG	-20	-	70	℃

4.PIN-MAP

4.1 J1(HDMI PIN-MAP)

Pin	Signal	Description
1	TMDS Data 2+	TMDS Transition differential signal 2+
2	TMDS Data2 Sh	Data2 Shielding ground
3	TMDS Data 2-	TMDS Transition differential signal 2-
4	TMDS Data 1+	TMDS Transition differential signal 1+
5	TMDS Data1 Sh	Data1 Shielding ground
6	TMDS Data 1-	TMDS Transition differential signal 1-
7	TMDS Data 0+	TMDS Transition differential signal 0+
8	TMDS Data 0 S	Data0 Shielding ground
9	TMDS Data 0-	TMDS Transition differential signal 0-
10	TMDS Clock+	TMDS Transition differential signal Clock+
11	TMDS Clock Sh	Clock Shielding ground
12	TMDS Clock-	TMDS Transition differential signal Clock-
13	CEC	Electronic protocol CEC
14	NC	NC
15	SCL	I2C Clock Line
16	SDA	I2C DATA Line
17	DDC/CEC GND	Data display channel
18	+5V	+5V Power
19	Hot Plug Detec	Hot Plug Detec

4.2 CN4 (Key board option) PH 1.25-5P

NO 管脚	SYMBOL 板上丝印	DESCRIPTION (描述)
1	LEDG	Green led (指示灯绿灯)
2	LEDR	Green led (指示灯绿灯)
3	3.3V	3.3V 输出
4	ADC	OSD-ADC 电压检测
5	GND	Ground(地)

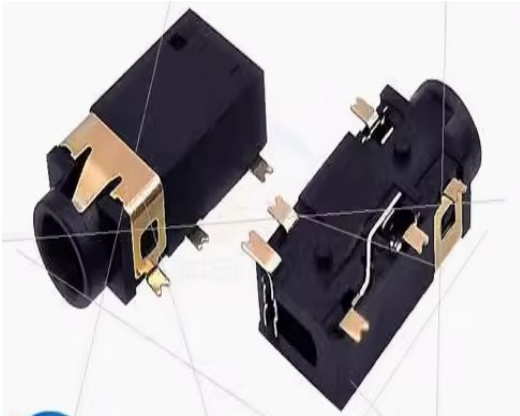
4.3 CN5 (Speaker) PH 1.25-4P

NO 管脚	SYMBOL 板上丝印	DESCRIPTION (描述)
1	L-	左声道-
2	L+	左声道+
3	R+	右声道-
4	R-	右声道+
Remark	Max 4ohm,2.6W	

4.4 CN2 (Touch connector) PH 1.25-4P

NO 管脚	SYMBOL 板上丝印	DESCRIPTION (描述)
1	5V	5V 输出
2	D+	数据+
3	D-	数据-
4	GND	地

4.5 J2(headphones)

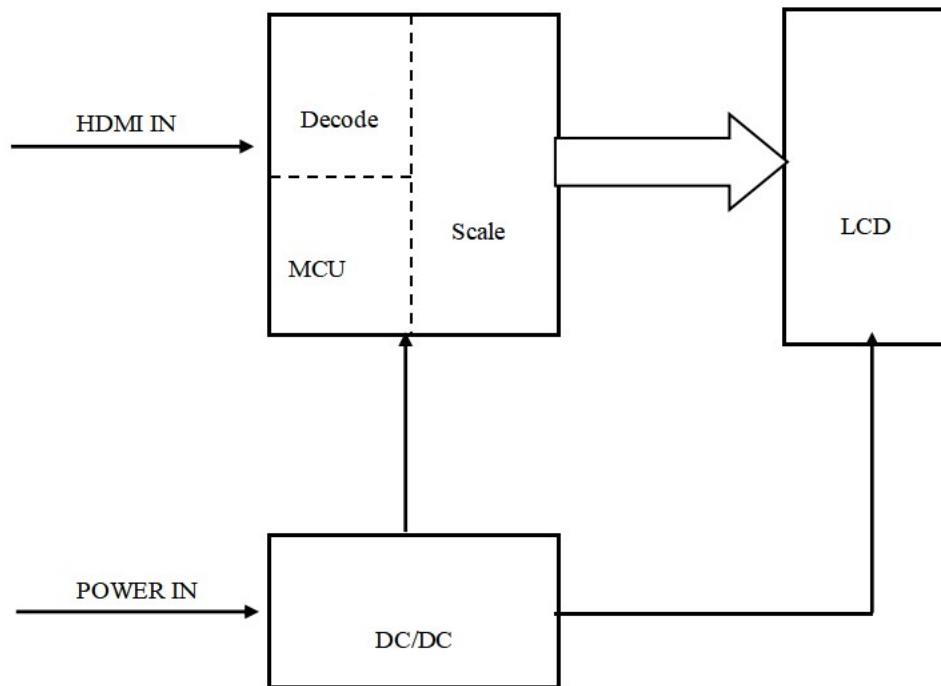


4.6 CON2(LCM) 50PIN/ 0.5mm

Pin No.	Symbol	Function
1-2	VLED+	Power for LED backlight anode
3-4	VLED-	Power for LED backlight cathode
5	GND	Power ground
6	VCOM	VCOM input
7	VCC	Digital power supply(+3.3V)
8	MODE	DE or HV mode control
9	DE	Data Enable
10	VS	Vsync signal input
11	HS	Hsync signal input
12	B7	Blue data input (MSB)
13	B6	Blue data input
14	B5	Blue data input
15	B4	Blue data input
16	B3	Blue data input
17	B2	Blue data input
18	B1	Blue data input
19	B0	Blue data input(LSB)
20	G7	Green data input(MSB)
21	G6	Green data input

22	G5	Green data input
23	G4	Green data input
24	G3	Green data input
25	G2	Green data input
26	G1	Green data input
27	G0	Green data input(LSB)
28	R7	Red data input(MSB)
29	R6	Red data input
30	R5	Red data input
31	R4	Red data input
32	R3	Red data input
33	R2	Red data input
34	R1	Red data input
35	R0	Red data input(LSB)
36	GND	Power ground
37	DCLK	Sample clock
38	GND	Power ground
39	L/R	Select left to right scanning direction
40	U/D	Select up or down scanning direction
41	VGH	Positive power for scan driver
42	VGL	Negative power for scan driver
43	AVDD	Power supply for analog circuit
44	RESET	Reset
45	POL	Polarity select for the line inversion control signal
46	VCOM	VCOM input
47-50	NC	No Connector

5. Block Diagram



6. Mechanical Drawing(90.0*62.0*1.6 mm)

