Tailorpixels

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9001 CERT. No.: 282Q19070712006

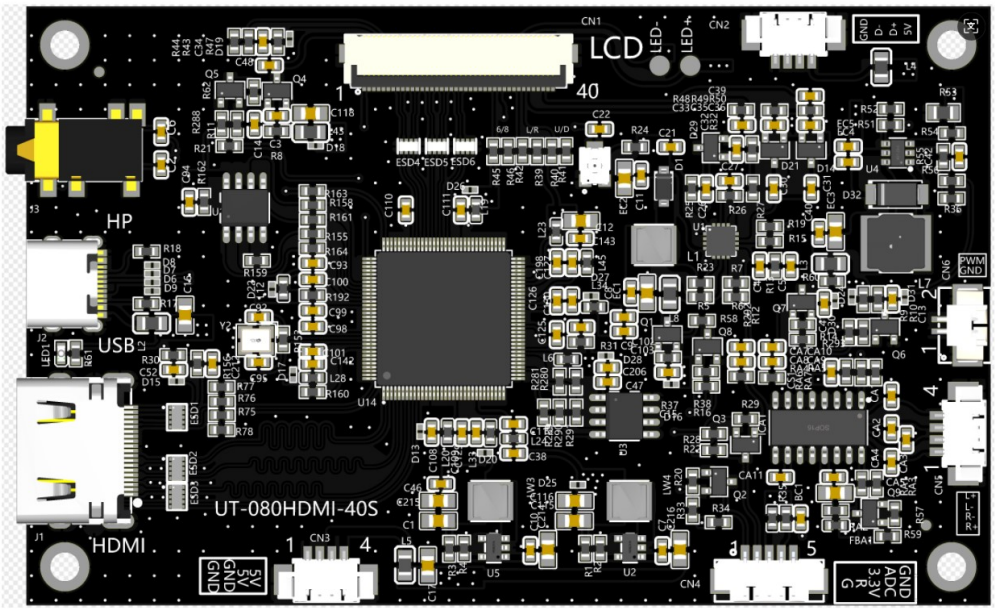
14001 CERT. No.: 282E19070712007

Product Specification

Model: TBJ080HD-02

HDMI Display Board

This module uses ROHS material



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Contents

1.Record of Revision

Version	Revise Date	Content	Remark
V1.0	2024/12/10	-	-

2. General Specifications

TBJ080HD-02 driver board is a HDMI HD signal input, drive LVDS single 40P 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)	1280*800
	Pixel Configuration	R.G.B.-Stripe
	Interface	HDMI
	Power input	TYPE-C
	Signal input	HDMI 1.4
Mechanical	PCB (W x H)	99.7*62.0mm
	LCM connector	40PIN/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	320	300	280	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	Clo6ck 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）

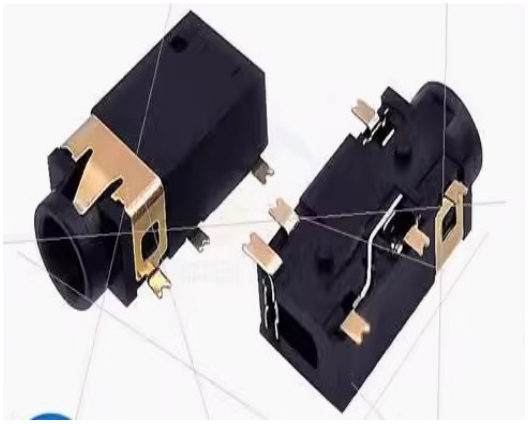
4.3 CN5 (Speaker) PH 1.25-4P

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)



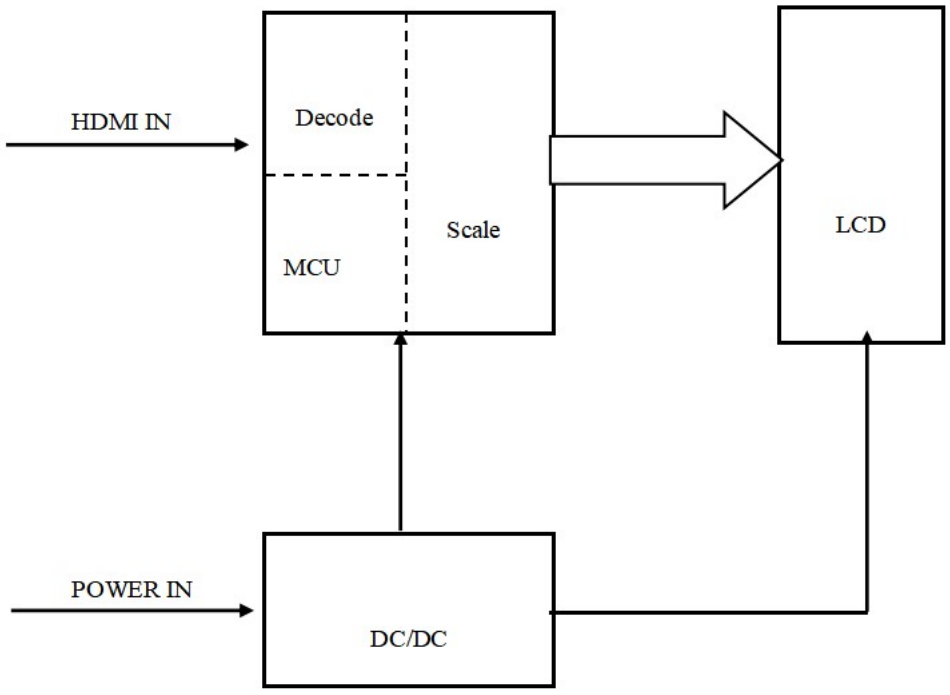
4.6 Power supply (type-c)

4.7 CN1(LCM)　40PIN/ 0.5mm

管脚序号	定义	描述
1	VCOM	Common Voltage
2	VDD	3.3V
3	VDD	3.3V
4	NC	No connection
5	Reset	Global reset pin
6	STBYB	Standby mode, Normally pulled high STBYB = “1”, normal operation STBYB = “0”, timing controller, source driver will turn off, all output are High-Z
7	GND	Ground
8	RXIN0-	- LVDS differential data input
9	RXIN0+	+ LVDS differential data input
10	GND	Ground
11	RXIN1-	- LVDS differential data input
12	RXIN1+	+ LVDS differential data input
13	GND	Ground
14	RXIN2-	- LVDS differential data input
15	RXIN2+	+ LVDS differential data input
16	GND	Ground
17	RXCLKIN-	- LVDS differential clock input
18	RXCLKIN+	+ LVDS differential clock input
19	GND	Ground
20	RXIN3-	- LVDS differential data input
21	RXIN3+	+ LVDS differential data input
22	GND	Ground
23	NC	No connection
24	NC	No connection
25	GND	Ground
26	NC	No connection
27	DIMO	Backlight CABC controller signal output
28	SELB	6bit/8bit mode select （R45-1/R46-0)
29	AVDD	需对照液晶屏修改
30	GND	Ground
31	LED-	LED Cathode
32	LED-	LED Cathode
33	L/R	Horizontal inversion （R42-0/R39-1)
34	U/D	Vertical inversion (R40-1/R41-0)
35	VGL	需对照液晶屏修改

36	CABCEN1	CABC H/W enable
37	CABCEN0	CABC H/W enable
38	VGH	需对照液晶屏修改
39	LED+	LED Anode
40	LED+	LED Anode

5. Block Diagram



6. Mechanical Drawing(99.7*62.0*1.6 mm)