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CERT. No.: 282Q19070712006



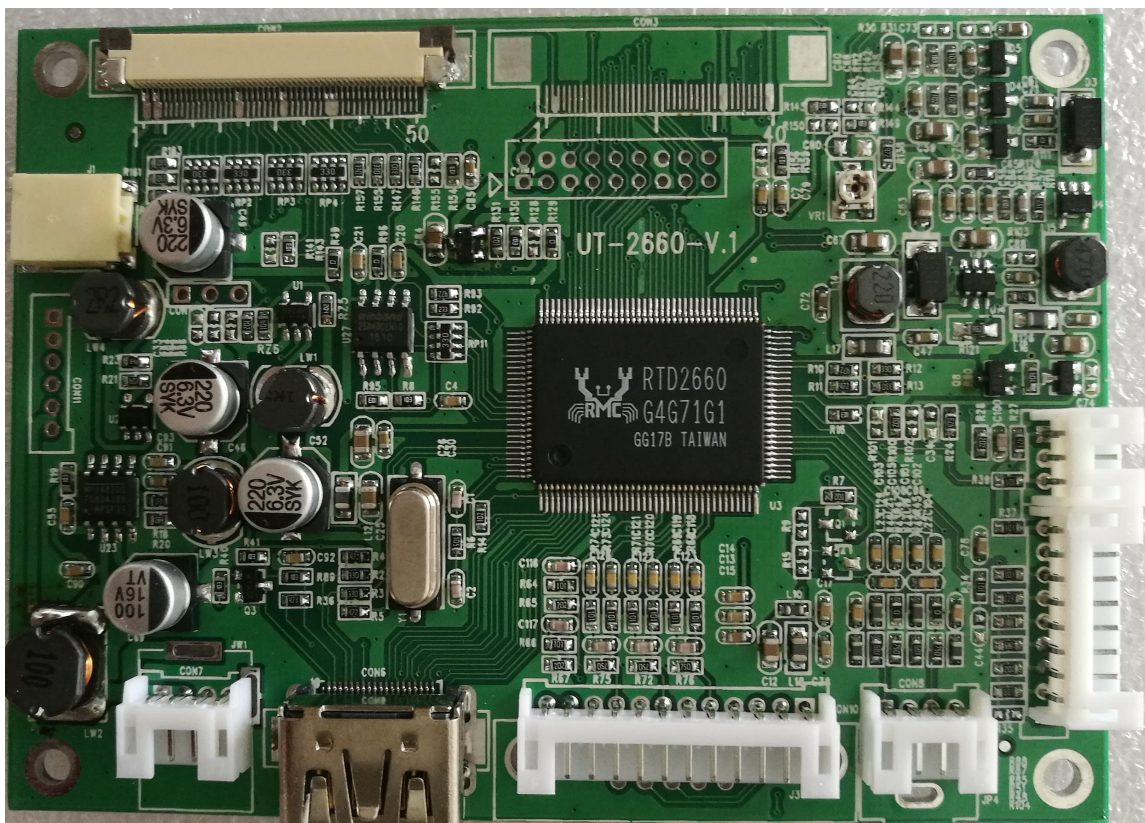
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Product Specification

Model: TBJ070HD-01

HDMI/VGA/CVBS Display Board

This module uses ROHS material



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1.Record of Revision

Version	Revise Date	Content	Remark
V1.0	2015/11/25	-	-

2. General Specifications

Feature		Spec
Characteristics	Size	-
	LCM Resolution supported(Max)	1024*768
	Pixel Configuration	R.G.B.-Stripe
	Interface	HDMI/VGA/CVBS
	Connect type	Cable
	Key	5key
Mechanical	PCB (W x H)	96.0*70.0mm
	LCM connector	50PIN/0.5mm,40PIN/0.5mm
	HDMI connector	HDMI-019S
	VGA connector	12pin/2.0mm

3. Electrical Characteristics

Item	Symbol	MIN	Typ	MAX	Unit
Supply Voltage	VDD	6	12	14	V
Direct Current	Idd	580	300	250	mA
Operating Temperature	TOPR	-10	-	60	°C
Storage Temperature	TSTG	-20	-	70	°C

4.PIN-MAP

4.1 CON6(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 CON12 (Key board) 9PIN/2.0mm

Pin No.	Symbol	Function
1	VCC	Power supply 5.0V
2	GND	GND
3	LED	Light
4	POWER	ON/OFF
5	MENU	MENU
6	SOURCE	Signal channel switch menu
7	LEFT	Increase key
8	RIGHT	Reduce key
9	AOUT	Option/NC

4.3 CON7 (POWER SUPPLY) 4PIN/2.0mm

Pin No.	Symbol	Function
1	+12V	Power supply
2	+12V	Power supply
3	GND	Ground
4	GND	Ground

4.4 CON8(CVBS) 4PIN/2.0mm

Pin No.	Symbol	Function
1	CVBS	AV Signal input
2	GND	Ground
3	CVBS1	AV1 Signal input
4	GND	Ground

4.5 CON10(VGA)12PIN/2.0mm

Pin No.	Symbol	Function
1	GND	Power ground
2	VS	VSYNC signal
3	HS	HSYNC signal
4	GND	Power ground
5	R+	Red signal +
6	GND	Power ground
7	G+	Green signal +
8	GND	Power ground
9	B+	Blue signal +
10	GND	Power ground
11	SDA	I2C data input
12	SCL	I2C clock

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

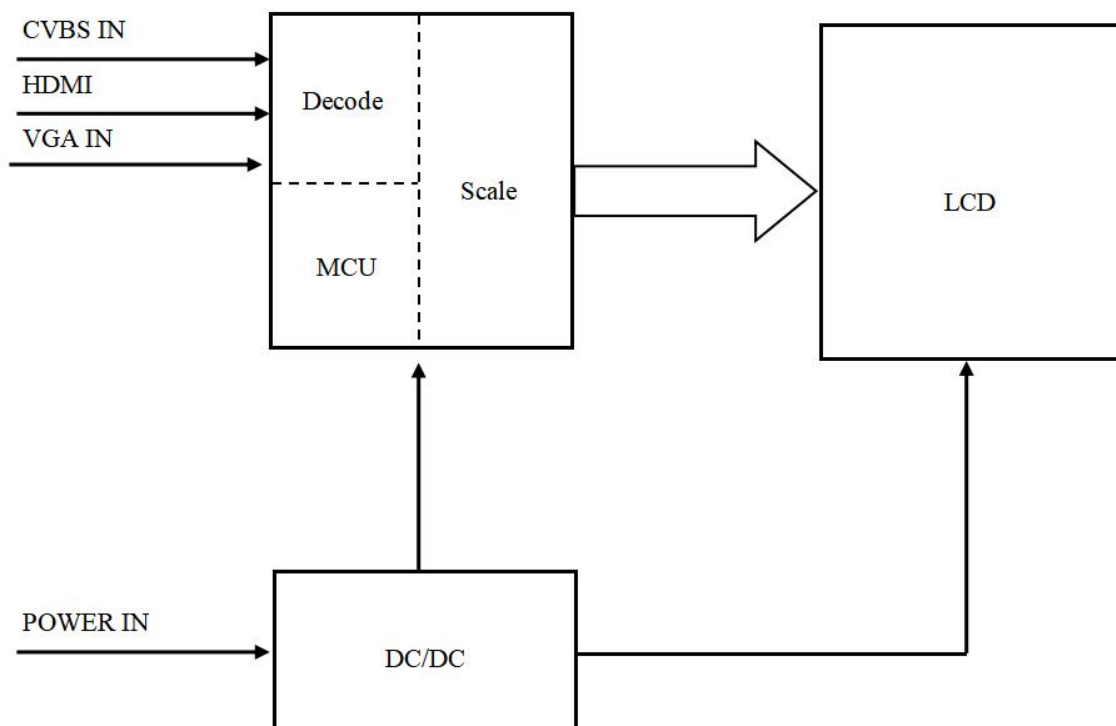
40	U/D	Select up or down scanning direction
41	VGH	Positive power for scan driver
42	VGL	Negative power for scan driver
43	AVDD	Power supply for analog circuit
44	RESET	Reset
45	POL	Polarity select for the line inversion control signal
46	VCOM	VCOM input
47-50	NC	No Connector

4.7 CON3(LCM) 40P/0.5mm

Pin No.	Symbol	Function
1	VCOM	Common Voltage
2	VDD	Power Voltage for digital circuit
3	VDD	Power Voltage for digital circuit
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
29	AVDD	Power for Analog Circuit
30	GND	Ground
31	LED-	LED Cathode
32	LED-	LED Cathode
33	L/R	Horizontal inversion
34	U/D	Vertical inversion
35	VGL	Gate OFF Voltage
36	CABCEN1	CABC H/W enable
37	CABCEN0	CABC H/W enable
38	VGH	Gate ON Voltage
39	LED+	LED Anode
40	LED+	LED Anode

5. Block Diagram



6. Mechanical Drawing

