

產品規格書

Product Specification

Customer: *****
Cust. Material No.: *****
Cust. Product No.: *****
Elight No.: EB104-40-214162W
Production: 10.4"AD Board

Applied Mode: *****

Approved	Review	Author

Initial : 2014-09-07	Revised:	Version:D
Document No.:		
Customer Signature	Data of approval	

1. General Function

- A. TFT-LCD module drive board.
- B. Resolution up to 1920 X 1080 @ 60 Hz.
- C. 15 PIN D-SUB VGA connector input.
- D. DVI-D (Digital Video Input) connector input
- E. Dual port 8 bit LVDS interface output to panel.
- F. OSD (On Screen Display) control menu.
- G. Supporting HDCP protocol (optional)
- H. Supporting DDC/CI protocol.
- I. Supporting DCR function (optional)
- J. Audio input and audio output 1.6w x 2 at 8ohm speaker

2. Specification

Model	EB104-40-214162W
Panel Interface	Single/Dual LVDS (10" to 27" panel)
Maximum Resolution	Up to WUXGA 1920x1080 / 8 bits per color, total 16.7M Colors
Vertical Refresh Rate	VGA 、 SVGA 、 XGA AND UXGA VESA standard up to 75Hz WUXGA up to 60HZ
Input Source	VGA analog (15 pin D-Sub) ,DVI ,Audio in
Dot Clock Maximum(pixel clock)	165 MHz
Key Function	Power / Menu / Adjust - / Adjust + / Auto
Board Dimension	110 mm x 56 mm
Voltage for LCD Panel	5V, 3.3V DC (Jump Select)
Storage Temperature Limits	Temperature -40C~70C
Operation TemperatureLimits	Temperature 0C~50C Humidity : Less than 85%

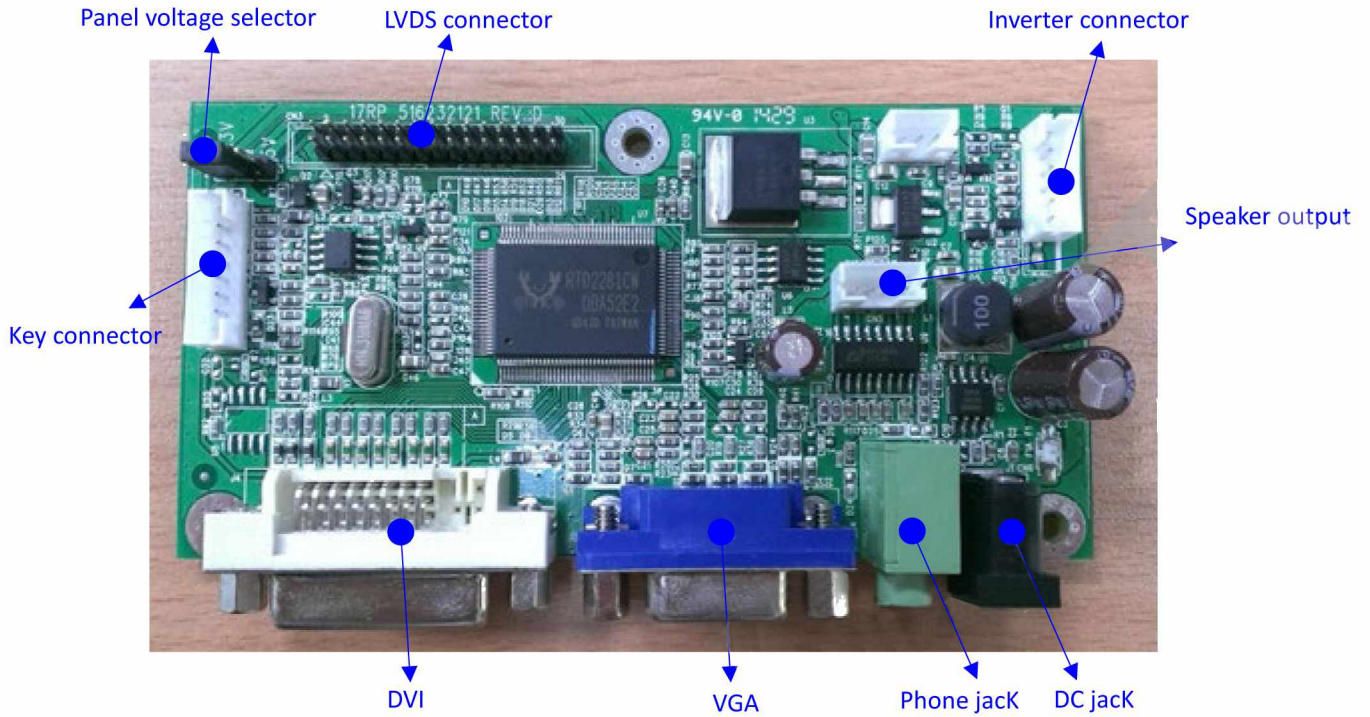
3. Support PC Timing

No.	Description	H-Freq.(KHz)	V-Freq.(Hz)
1	VGA 640 x 640	31.480	70
2	VGA 640 x 480	31.649	60
3	VGA720x400	37.469	70

No.	Description	H-Freq.(KHz)	V-Freq.(Hz)
4	VESA 640×480	37.862	72.809
5	VESA 640×480	37.5	75
6	VESA 800×600	35.156	56.25
7	VESA 800×600	37.9	60
8	VESA 800×600	48.077	72.188
9	VESA 800×600	46.875	75
10	VESA 1024×768	48.363	60
11	VESA 1024×768	56.476	70
12	VESA 1024×768	60.023	75
13	VESA 1152×864	67.5	75
14	VESA 1280 x 768	47.8	60
15	VESA 1280 x 768	60.3	75
16	VESA 1280×960	60	60
17	VESA 1280×1024	63.981	60
18	VESA 1280×1024	79.977	75
19	VESA 1440×900	59.9	60
20	VESA 1440×900	75	75
21	VESA 1600×1200	75	60
22	VESA 1600×1200	81.3	65
23	VESA 1600×1200	87.5	70
24	VESA 1600×1200	93.8	75
25	VESA 1680×1050	65.3	60
26	VESA 1680×1050	74.9	75
27	VESA 1920×1080	56.25	50
28	VESA 1920×1080	67.5	60

Note1:VGA input only

4. Signal Input Connections



4.1. VGA Signal Input

Location J3 - 15 pin Hi-Density Female D-SUB

Pin Assign and Definition

Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	RED IN	6	R-GND	11	GND
2	GREEN IN	7	G-GND	12	SDA DDC
3	BLUE IN	8	B-GND	13	SYNC. H
4	GND	9	PC 5V	14	SYNC. V
5	GND	10	DET	15	SCL DDC

4.2. DVI Input

Location J4 - 30 Pin DVI Connector

Pin Assign and Definition

Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	DATA2-	11	GND	21	NC
2	DATA2+	12	NC	22	GND
3	GND	13	NC	23	CLKa+
4	NC	14	DDC 5V	24	CLKa-
5	NC	15	GND	25	NC
6	DVI_DDC_SCL	16	GND	26	NC
7	DVI_DDC_SDA	17	DATA0-	27	NC
8	NC	18	DATA0+	28	NC
9	DATA1-	19	GND	29	GND
10	DATA1+	20	NC	30	NC

4.3. Power Input

Location – J1 : DC JACK DC=2.5mm OR DC=2.0mm OR

Location - CN6 : 4 Pin wafer pitch 2.0mm 180D

Pin assign and definition

Pin No.	Symbol
1	+12V
2	+12V
3	GND
4	GND

4.4. Panel power select (JP1)

Pin1,Pin2 short panel power 3.3V

Pin2,Pin3 short panel power 5V

4.5. LVDS Output

Location – CN3 :2X15 PIN, pitch 2.0mm

Pin Assign and Definition

Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	VLCD for Panel	11	LVDS RXE_2-	21	LVDS RXO_1-
2	VLCD for Panel	12	LVDS RXE_2+	22	LVDS RXO_1+
3	VLCD For Panel	13	GND	23	LVDS RXO_2-
4	NC	14	GND	24	LVDS RXO_2+
5	GND	15	LVDS RXE_CLK-	25	GND
6	GND	16	LVDS	26	GND
7	LVDS RXE_0-	17	RXE_CLK+	27	LVDS
8	LVDS RXE_0+	18	LVDS RXE_3-	28	RXO_CLK-
9	LVDS RXE_1-	19	LVDS RXE_3+	29	LVDS RXO_CLK+
10	LVDS RXE_1+	20	LVDS RXO_0-	30	LVDS RXO_3-

4.6. Key Output Connector

Location – CN2: 8PIN wafer pitch 2.0mm 180D

All Key Active Low Level., All LED Active HI Level , Output Current 10mA MAX

Pin assign and definition

Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	MENU KEY	4	UP KEY	7	LED_O
2	AUTO KEY	5	GND	8	POWER KEY
3	DOWN KEY	6	LED_G		

4.7. Inverter Connector

Location – CN1: 6 PIN wafer pitch 2.0mm 180D

Pin assign and definition

Pin No.	Symbol	Pin No.	Symbol
1	GND	4	Back Light Enable
2	GND	5	+12V
3	Dimming control	6	+12V

4.7.1 Dimming:

IF CCFL panel Range 0 (Inverter Current Max) to 5V (Inverter Current Min) IF LED panel PWM Ratio 100%(LED Current Max) to PWM Ratio 20%(LED Current Min)

4.7.2 Back light enable: 5V (ON) or 0V (OFF)

4.8. Audio Input – CN4, SCJ368R0NXS0G04G 3P Green or equiv.

Audio Input 1Vp-p Max.

4.9. Speaker Output – CN5, 4 PIN wafer pitch 2.0mm 180D

Audio Output 1.6W + 1.6W at 8 Ohm

Pin assign and definition

Pin No.	Symbol
1	R+
2	R-
3	L+
4	L-

4.10 Other Connector: CN7, 3 PIN wafer pitch 2.0mm 180D

Pin assign and definition

Pin No.	Symbol
1	GND
2	NC
3	+5V

5. PCB Dimension

