



Customer : _____

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Comment:

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benson

KEVIN LIN

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Approved By

Checked By

Prepared By



Record of revision

Version	Revise Date	Page	Description
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*****The content of this information is subject to be change without notice.**



1. Feature:

- *Compatible from VGA up to Full HD resolution(1920x1080) TFT LCD panel.
- *Supply single pixel(24bits)or dual pixel(48bits) digital RGB output.
- *Support Vertical refresh rate up to 75Hz for VGA~SXGA+(1400x1050) and 60Hz for higher resolution of VESA Standard Timing.
- ***Support VGA analog standard input signal(15-pin D-Sub connectors).**
Automatic detection of separate synchronize and composite synchronizes of VGA.
- ***Support Digital Signal input (DVI)**
- * Support Audio Amplifier function . (option)
- * **Support High-Definition Multimedia Interface (HDMI) input .**
- * RS232 support (option)
- * IR remote control (option)
- * DC 12V input .
- * Operating temperature : -20 °C to +70 °C .
- *Storage temperature : -40 °C to +70 °C .
- * RoHS compliant .



2. Support Timing Table

Mode	Resolution	H Freq.(KHz)	V Freq.(Hz)
1	640*350@70	31.469	70.087
2	640*480@60	31.469	59.940
3	640*480@72	37.861	72.809
4	640*480@75	37.500	75.000
5	720*400@70	31.469	70.087
6	800*600@56	35.156	56.250
7	800*600@60	37.879	60.317
8	800*600@72	48.077	72.188
9	800*600@75	46.875	75.00
10	1024*768@60	48.363	60.004
11	1024*768@70	56.476	70.069
12	1024*768@72	58.038	71.918
13	1024*768@75	60.023	75.029
14	1280*70@50	36.91	49.82
15	1280*720@60	44.62	59.81
16	1280*1024@60	63.980	60.000
17	1280*1024@70	74.882	69.853
18	1280*1024@75	79.976	75.025
19	1360*768@60	47.72	59.799
20	1440*900@60	55.935	59.887
21	1680*1050@60	65.3	60
22	1920*1080@50	56.25	50.00
23	1920*1080@60	66.6	60

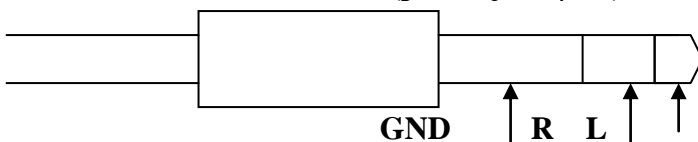


3. Connector Description

Connector	Function	Note
CN1	VGA connector	D-15F
CN2	HDMI Connector	
CN3	Audio Line-in Jack	ψ3.5
CN4	DVI connector	
CN5	Power connector	ψ2.5
J5	LCD Panel for LVDS	PH 2.0mm. 32Pin.180°
J6	Key pad connector	PH 2.0mm. 10Pin.180°
J7	Inverter connector	PH 2.0mm. 8Pin.180°
J8	Speaker connector	PH 2.0mm. 4Pin.180°
J9	UART Connector	PH 2.0mm. 5Pin.180°
J11	IR Connector	PH 2.0mm. 3Pin.180°
J12	Ext. Amp. connector	PH 2.0mm. 5Pin.180°
JP1	3.3V/5V/ 12V selector	PH 2.5mm. 2x3Pin.180°
JP2	PWM / Analog selector	PH 2.5mm. 3Pin.180°

Pin definition for connector

CN3 : Audio Line-in connector (phone jack ψ3.5)



**J7: Inverter Connector (2.0mm 8 Pin DIP)**

Pin	Function	Note
1,2	12V Input	
4,6	GND	
3	Brightness control	0V – 5V Analog or PWM
5	ON/OFF Control	5V ON;0V OFF
7,8	5V Input/Output	

Note : 2.0mm 5 pin connector(Pin1~5) is used for standard 12V input and stand alone Inverter .

2.0mm 3 pin connector (Pin6~8) is used for 2-in-1 power supply with 5V input .

J6: Key Board Connector (2.0 mm 10Pin DIP)

Pin	Function	Note
1	SEL+(RIGHT)	
2	SEL-(LEFT)	
3	AUTO	
4	MENU	
5	POWER	
6	LED-G	
7	LED-R	
8	GND	
9	N.C.	
10	N.C.	

J8: Audio Speaker Connector (2.0 mm 4Pin DIP)

Pin	Description	Note
1	L-	
2	L+	
3	R-	
4	R+	

**J9: Connector (2.0 mm 5Pin DIP)**

Pin	Description	Note
1	V5B	
2	Key2	
3	Tx	
4	Rx	
5	GND	

J11: Connector (2.0 mm 3Pin DIP)

Pin	Description	Note
1	V5A	
2	IR	
3	GND	

J12: Connector (2.0 mm 5Pin DIP)

Pin	Description	Note
1	L_10W	
2	R_10W	
3	Mute_AMP	
4	STB_AMP	
5	GND	

**JP1: Panel B+ 5V / 12V selector (2.5 mm 2*3Pin DIP)**

Pin	Description	Note
1 - 6	3.3V	
2 - 5	5V	
3 - 4	12V	

JP2: PWM / Analog selector (2.5 mm 3Pin DIP)

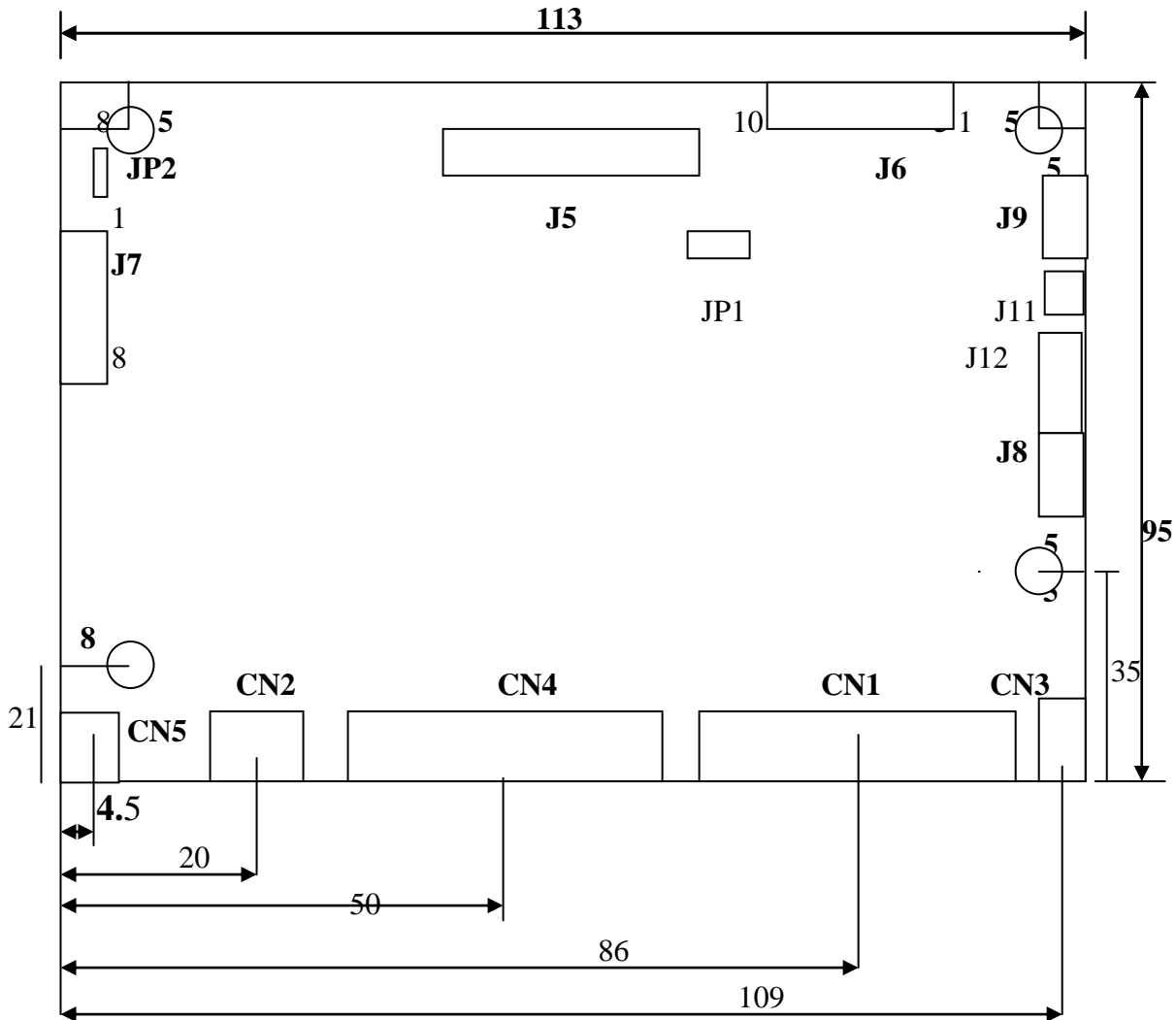
Pin	Description	Note
1 - 2	PWM	
2 - 3	Analog	

**J5:Panel Connector (2.0 mm 32 Pin DIP)**

Pin	Name (8 bit)	
1	VDD	
2	VDD	
3	VDD	
4	VDD	
5	GND	
6	GND	
7	RXEIN3-	
8	RXEIN3+	
9	RXEINC-	
10	RXEINC+	
11	RXEIN2-	
12	RXEIN2+	
13	RXEIN1-	
14	RXEIN1+	
15	RXEIN0	
16	RXEIN0+	
17	RXOIN3-	
18	RXOIN3+	
19	RXOINC-	
20	RXOINC+	
21	RXOIN2-	
22	RXOIN2+	
23	RXOIN1-	
24	RXOIN1+	
25	RXOIN0	
26	RXOIN0+	
27~29	NC	
30~32	GND	



3. Board Dimension :113mm*95mm





6. OSD Keypad:

Function description



- 1) **SW1 (Power key)**- While system off: As a power key to turn system on.
While system on: As a function “power-off” key to entry into standby mode
- 2) **SW2 (Source)** - Auto-Tune key / Exit key back to OSD menu
- 3) **SW3(Inc key)** - When on OSD menu, this key as operate up, down item or increase volume.
- 4) **SW4(Dec key)** -When on OSD menu, this key as operate up, down item or decrease volume.
- 5) **SW5(Menu key)** –Press this key into OSD menu page