

KC46D4 Board Specification Sheet

Model No. KC46D4 (Part No.:C46D4525AIP--)

Main Feature:

- ◎ Auto detection of separate Sync. signal and composite Sync. signal of VGA
- ◎ Support VGA analog standard input signal (15-pin D-Sub connectors)
- ◎ Support vertical refresh rate up to 75Hz for VGA~SXGA+ (1400X1050) and 60Hz for higher resolution of VESA standard timing
- ◎ Supply single pixel(24bits) or dual pixel(48bits)digital RGB output
- ◎ Compatible with VGA up to Full HD (1920x1200) LCD panel
- ◎ Operating temperature : -30 °C to +80 °C
- ◎ Storage temperature : -40 °C to +80 °C
- ◎ Support Display Port input (DP 1.2)
- ◎ Support audio amplifier function.
- ◎ Support DVI input (DVI 1.0)
- ◎ Support RS232 (Optional)
- ◎ RoHS compliant
- ◎ DC 12V input

Support Timing Table:

Mode	Resolution	H Frequency (KHz)	V Frequency (Hz)
1	640*350@70	31.469	70.087
2	640*480@60	31.469	59.940
3	640*480@75	37.500	75
4	720*400@70	31.469	70.087
5	800*600@60	37.879	60.317
6	800*600@75	46.875	75
7	1024*768@60	48.363	60.004
8	1024*768@70	56.476	70.069
9	1024*768@75	60.023	75.029
10	1280*720@60	44.62	59.81
11	1280*1024@60	63.980	60
12	1280*1024@70	74.882	69.853
13	1280*1024@75	79.976	75.025
14	1360*768@60	47.72	59.799
15	1440*900@60	55.935	59.887
16	1680*1050@60	65.3	60
17	1920*1080@60	66.6	60
18	1920*1200@60	74.038	59.9

Connector Description:

Connector List:

Connector	Description	Note
CN1	VGA Connector	D-15F
DP1	Display Port Connector	
CN3	Audio Line-in Connector	ϕ 3.5
CN4	DVI Connector	
CN5	Power Connector	ϕ 2.5
J4	Power Connector	PH 2.0mm. 4Pin.180°
J5	LVDS Panel Connector	PH 2.0mm. 32Pin.180°
J6	Key pad Connector	PH 2.0mm. 10Pin.180°
J7	Inverter Connector	PH 2.0mm. 8Pin.180°
J8	Audio Speaker Connector	PH 2.0mm. 4Pin.180°
J9	UART/ABL 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°
SW1	F/W Timing Selector	PH 2.5mm. 2x4Pin.

Pin Definition of Connector:

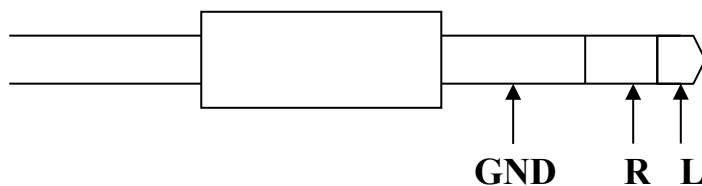
CN1: VGA Connector (15pin D-Sub):

Pin	Description	Note
1	VGA R+	Red analog
2	VGA G+	Green analog
3	VGA B+	Blue analog
4	N.C.	Not connect
5	GND	Analog ground
6	VGA R-	Analog ground of RED
7	VGA G-	Analog ground of GREEN
8	VGA B-	Analog ground of BLUE
9	VGA 5V	Power of Cable +5VDC
10	GND	Analog ground
11	N.C.	Not connect
12	DDC SDA	DDC serial data
13	HSIN	Horizontal synchronous
14	VSIN	Vertical synchronous
15	DDC SCL	DDC serial clock

DP1: Display Port Connector:

Pin	Description	Note
1	ML_LANE3N	Lane 3 (-)
2	GND	Ground
3	ML_LANE3P	Lane 3 (+)
4	ML_LANE2N	Lane 2 (-)
5	GND	Ground
6	ML_LANE2P	Lane 2 (+)
7	ML_LANE1N	Lane 1 (-)
8	GND	Ground
9	ML_LANE1P	Lane 1 (+)
10	ML_LANE0N	Lane 0 (-)
11	GND	Ground
12	ML_LANE0P -	Lane 0 (+)
13	GND	Ground
14	GND	Ground
15	AUX_CHP	Auxiliary channel (+)
16	GND	Ground
17	AUX_CHN	Auxiliary channel (-)
18	HOT_PLUG	Hot plug detecting
19	RETURN	Return for power
20	DP_PWR	Power of connector (3.3V/500 mA)

CN3 : Audio Line-in Connector (Phone Jack ϕ 3.5)



CN4:DVI-D (single link) Connector:

Pin	Description	Note
1	DATA2-	TMDS Data 2-
2	DATA2+	TMDS Data 2+
3	DATA2/4 SHLD	Ground
4	DATA4-	Not connect
5	DATA4+	Not connect
6	DDC CLK-	DDC clock
7	DDC DATA	DDC Data
8	A-VSHNC	Not connect
9	DATA1-	TMDS Data 1-
10	DATA1+	TMDS Data 1+

11	DATA1/3 SHLD	Ground
12	DATA3-	Not connect
13	DATA3+	Not connect
14	+5V	Power of monitor when in standby
15	DVI DETECT	DVI_CABLE_DETECT
16	H-PLUG-DET	Hot plug detect
17	DATA0-	TMDS Data 0-
18	DATA0+	TMDS Data 0+
19	DATA0/5 SHLD	Ground
20	DATA5-	Not connect
21	DATA5+	Not connect
22	CLK-SHLD	Ground
23	CLK+	TMDS clock+
24	CLK-	TMDS clock-

CN5: Power Connector (2.5 ϕ 3Pin DIP):

Pin	Description	Note
1	12V	Input +12VDC
2,3	GND	Ground

J4: Power Connector (2.0 mm 4Pin DIP):

Pin	Description	Note
1,4	DC 12V	Input +12VDC
2,3	GND	Ground

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

Pin	Description (8 bit)	Note
1,2,3,4	VDD	3.3V/5V/12V Panel power supply
5	GND	Ground
6	GND	Ground
7	RXEIN3-	EvenTx3- Data Pin
8	RXEIN3+	EvenTx3+ Data Pin
9	RXEINC-	EvenTx- Clock Pin
10	RXEINC+	EvenTx+ Clock Pin
11	RXEIN2-	EvenTx2- Data Pin
12	RXEIN2+	EvenTx2+ Data Pin
13	RXEIN1-	EvenTx1- Data Pin
14	RXEIN1+	EvenTx1+ Data Pin
15	RXEIN0-	EvenTx0- Data Pin
16	RXEIN0+	EvenTx0+ Data Pin
17	RXEIN3-	OddTx3- Data Pin

18	RXOIN3+	OddTx3+ Data Pin
19	RXOINC-	OddTx- Clock Pin
20	RXOINC+	OddTx+ Clock Pin
21	RXOIN2-	OddTx2- Data Pin
22	RXOIN2+	OddTx2+ Data Pin
23	RXOIN1-	OddTx1- Data Pin
24	RXOIN1+	OddTx1+ Data Pin
25	RXOIN0-	OddTx0- Data Pin
26	RXOIN0+	OddTx0+ Data Pin
27	N.C.	Not connect
28	N.C.	Not connect
29	N.C.	Not connect
30	N.C.	Not connect
31	GND	Ground
32	GND	Ground

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

Pin	Description	Note
1	SEL+(RIGHT)	
2	SEL-(LEFT)	
3	AUTO	
4	MENU	
5	POWER	
6	LED-G	Green LED (Power ON)
7	LED-R	Red LED (Power saving)
8	GND	Ground
9	N.C.	Not connect
10	N.C.	Not connect

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

Pin	Description	Note
1,2	12V Input	
4,6	GND	
3	Brightness Control	PWM
5	ON/OFF Control	5V ON;0V OFF
7,8	5V	

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

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

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

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

J9: UART/ABL Connector (2.0 mm 5Pin DIP):

Pin	Description	Note
1	5V	Output +5VDC
2	ABL	ADC Light Sensor Option
3	Tx	
4	Rx	
5	GND	Ground

J11: IR Connector (2.0 mm 3Pin DIP):

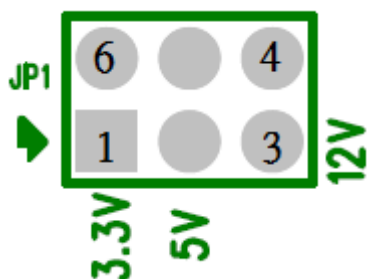
Pin	Description	Note
1	5V	Output +5VDC
2	IR	Interrupt input
3	GND	Ground

J12: Ext. Amp. Connector (2.0 mm 5Pin DIP):

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

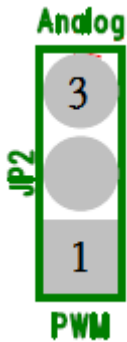
JP1: 3.3V/5V/12V Selector (2.5 mm 2x3 Pin DIP):

Pin	Description	Note
1 - 6	3.3V	Power supply of +3.3VDC
2 - 5	5V	Power supply of +5VDC
3 - 4	12V	Power supply of +12VDC



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

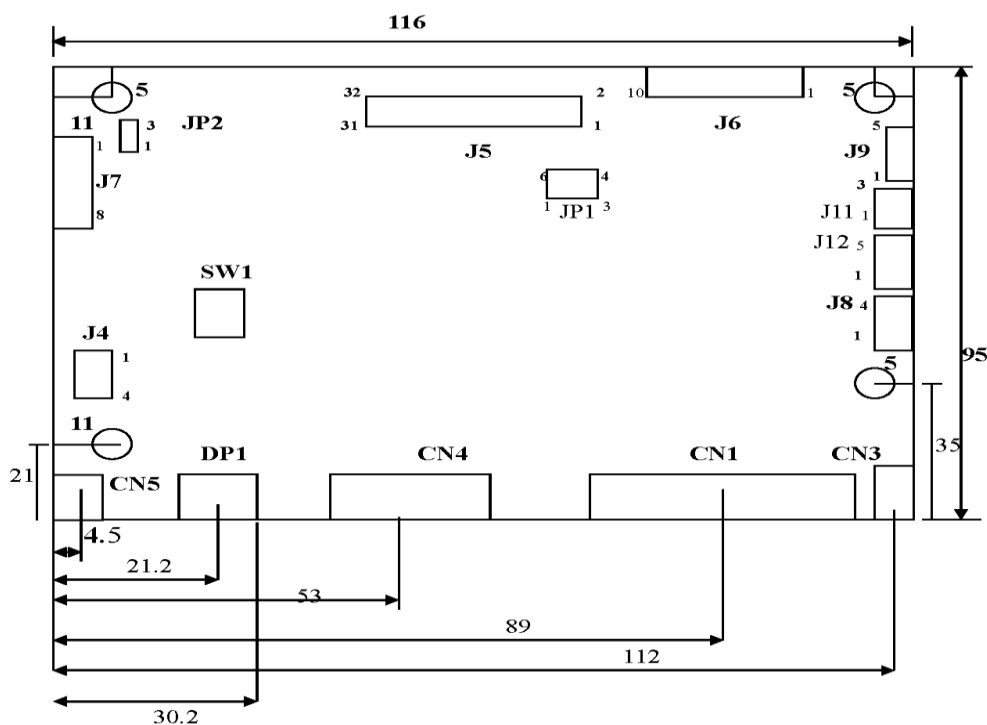
Pin	Description	Note
1 - 2	PWM	Inverter PWM Control
2 - 3	Analog	Inverter DC Level Control



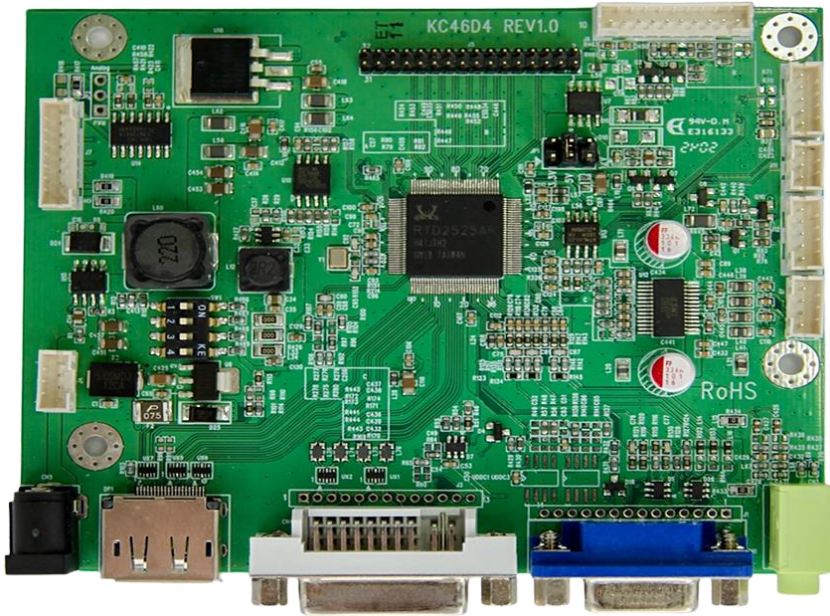
SW1: F/W Timing Selector (2.5 mm 2*4Pin SMT):

Pin	Description	Note
0	12	1024*768
1	15	1024*768
2	17	1280*1024
1,2	15.6	1366*768
3	21.5	1920*1080
1,3		800*600
2,3		640*480

Board Dimension :116mm*95mm



Board Photo:



※Specifications and product design are subject to change without notice.