



# **INDEX**

- 1. General Description**
- 2. Dimension & Cable connections**
- 3. Applicable timing**
- 4. LCD OSD Setting**
- 5. Burn in mode**

# 1. General Description

## 1.1 Introduction

The CAD004 is design for Full HD TFT flat panel interface board, the CAD004 has below features:

- HDMI X 1
- DVI-D X 1
- VGA X 1
- RS232 and Remote control OSD
- Audio I/F
- +12V, +5V Output
- I2C I/F

## 1.2 Electrical Characteristics

Item	Symbol	Min	Max	Unit
Power Supply	Vs	11.5	12.5	V
Panel Power	Vp	4.8	12	V
Brightness	BL-ADJ	0.1	3.6	V
Panel On/Off	ON_OFF	0.5	5	V

## 1.3 Power consumption

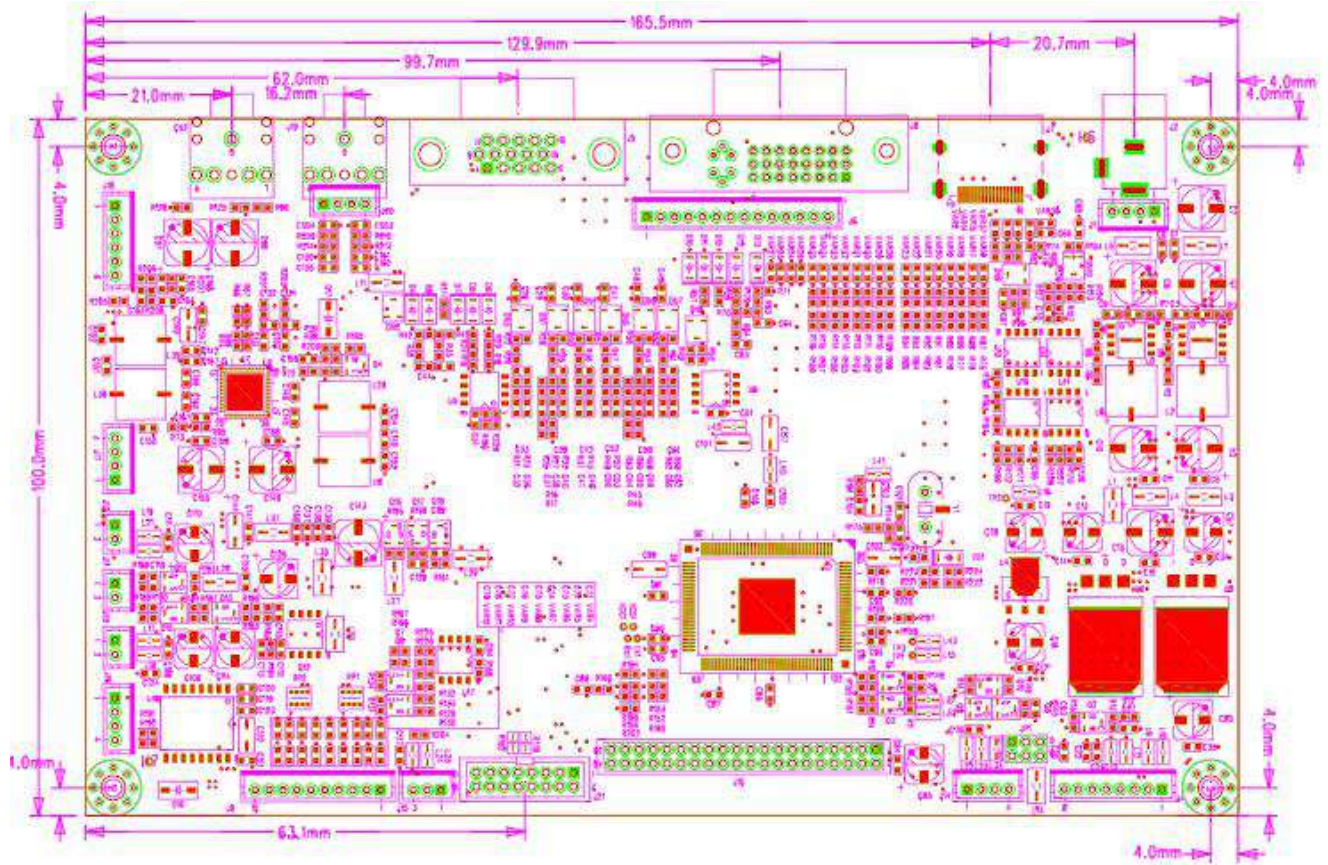
Resolution: 1920 X 1080 60Hz

VIN: DC 12V

Item	Min	Max	Unit
A/D Board only	5	7.5	W
Power saving	0.45	0.6	W

## 2. Dimension & Cable connectors

### 2.1 Dimension: 165.5mm (L) \*100 mm (W)\* 14.2mm(H)



## 2.2 PIN DESCRIPTION

### LVDS OUT (J10) 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	10b_E0-	2	10b_E0+
3	10b_E1-	4	10b_E1+
5	GND	6	GND
7	VCC	8	VCC
9	VCC	10	VCC
11	10b_E2_8b_E0-	12	10b_E2_8b_E0+
13	10b_EC_8b_E1-	14	10b_EC_8b_E1+
15	10b_E3_8b_E2-	16	10b_E3_8b_E2+
17	GND	18	GND
19	10b_E4_8b_EC-	20	10b_E4_8b_EC+
21	10b_O0_8b_E3-	22	10b_O0_8b_E3+
23	GND	24	GND
25	10b_O1_8b_O0-	26	10b_O1_8b_O0+
27	10b_O2_8b_O1-	28	10b_O2_8b_O1+
29	10b_OC_8b_O2-	30	10b_OC_8b_O2+
31	GND	32	GND
33	10b_O3_8b_OC-	34	10b_O3_8b_OC+
35	10b_O4_8b_O3-	36	10b_O4_8b_O3+
37	GND	38	GND
39	NC	40	NC

## POWER I/F (J4)

### WAFER 8pin 2.0mm

PIN	Function	PIN	Function
1	+5V	2	+12V
3	GND	4	Brightness
5	GND	6	ON/OFF
7	5V_STB	8	PS_ON

## OSD KEY (J9)

### WAFER 10pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	Green-LED	2	GND
3	RED-LED	4	Power-KEY
5	Menu-KEY	6	Auto-KEY
7	Right-KEY	8	Left-KEY
9	Up-KEY	10	Down-KEY

## Extend I/F (J18)

### WAFER 6pin 2.0mm

PIN	FUNCTION
1	IR_OUT
2	GND
3	POWER_CTRL
4	EX_AUD_L
5	GND
6	EX_AUD_R

## IR I/F (J15)

### WAFER 7pin 2.0mm

PIN	FUNCTION
1	3.3V
2	IR_IN
3	GND

### 3. Applicable Timing

<b>Resolution</b>	<b>Refresh Rate</b>	<b>Horizontal Frequency</b>	<b>Pixel Frequency</b>	<b>Standard Type</b>	<b>Remarks</b>
<b>640 x 480</b>	<b>60 Hz</b>	<b>31.50 KHz</b>	<b>25.175 MHz</b>	<b>Industrial Standard</b>	
<b>640 x 480</b>	<b>75 Hz</b>	<b>37.50 KHz</b>	<b>31.500 MHz</b>	<b>VESA Standard</b>	
<b>800 x 600</b>	<b>60 Hz</b>	<b>37.9 KHz</b>	<b>40.000 MHz</b>	<b>VESA Guideline</b>	
	<b>72 Hz</b>	<b>48.10 KHz</b>	<b>50.000 MHz</b>	<b>VESA Standard</b>	
	<b>75 Hz</b>	<b>46.90 KHz</b>	<b>49.500 MHz</b>	<b>VESA Standard</b>	
<b>1024 x 768</b>	<b>60 Hz</b>	<b>48.40 KHz</b>	<b>65.000 MHz</b>	<b>VESA Guideline</b>	
	<b>70 Hz</b>	<b>56.5 KHz</b>	<b>75.000 MHz</b>	<b>VESA Standard</b>	
	<b>75 Hz</b>	<b>60.00 KHz</b>	<b>78.750 MHz</b>	<b>VESA Standard</b>	
<b>1280 x 1024</b>	<b>60 Hz</b>	<b>64.00 KHz</b>	<b>108.000 MHz</b>		
<b>1440 x 900</b>	<b>60Hz</b>	<b>59.9KHz</b>	<b>106.500MHz</b>		
	<b>75Hz</b>	<b>75.0KHz</b>	<b>136.750MHz</b>		
<b>1920 X 1080</b>	<b>60Hz</b>	<b>59.9KHz</b>	<b>106.500MHz</b>		
<b>1920X1200</b>	<b>60Hz</b>	<b>59.9KHz</b>	<b>106.500MHz</b>		

## 4. LCD OSD Setting

### 4.1

#### Color



### 4.2

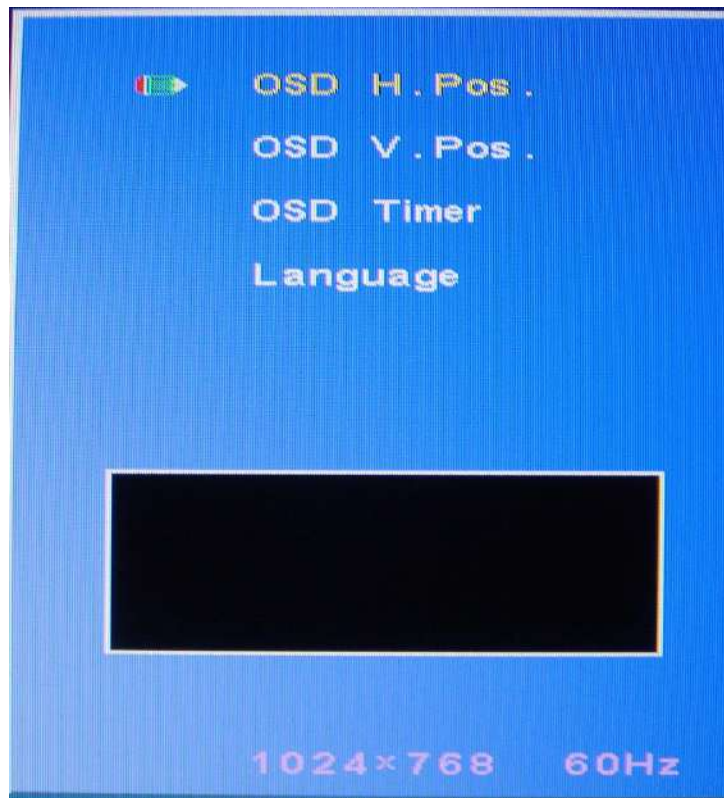
#### Image setting





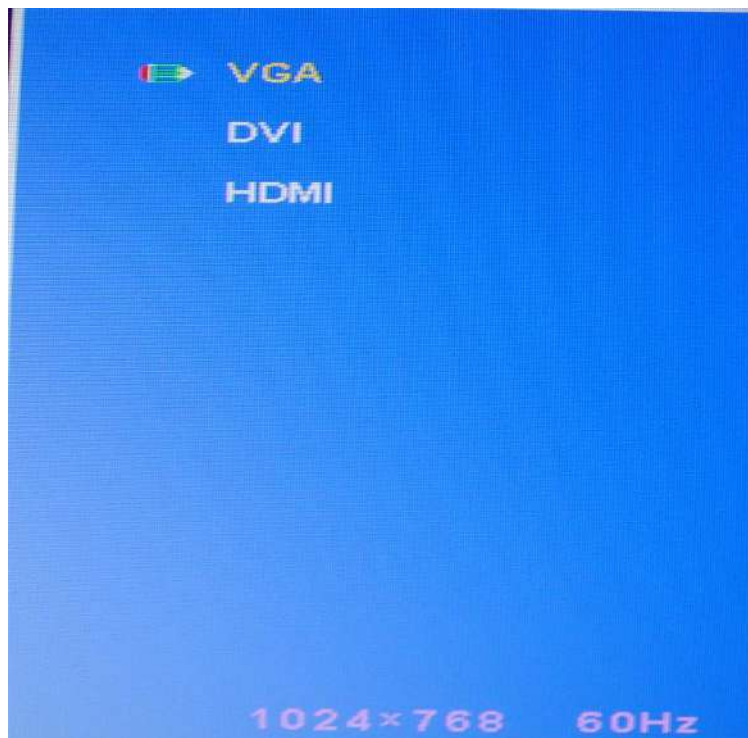
4.3

## OSD



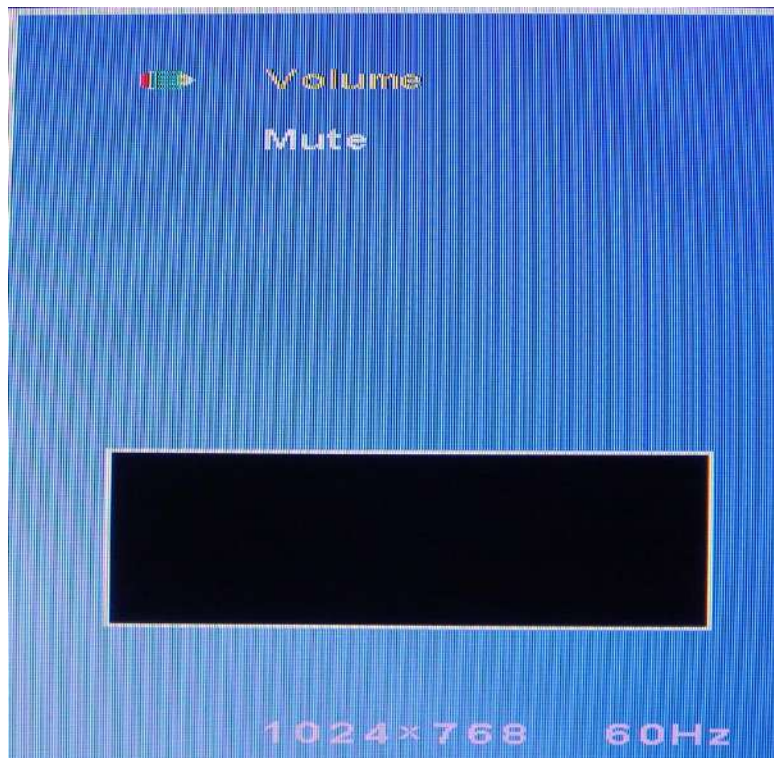
4.4

## Source



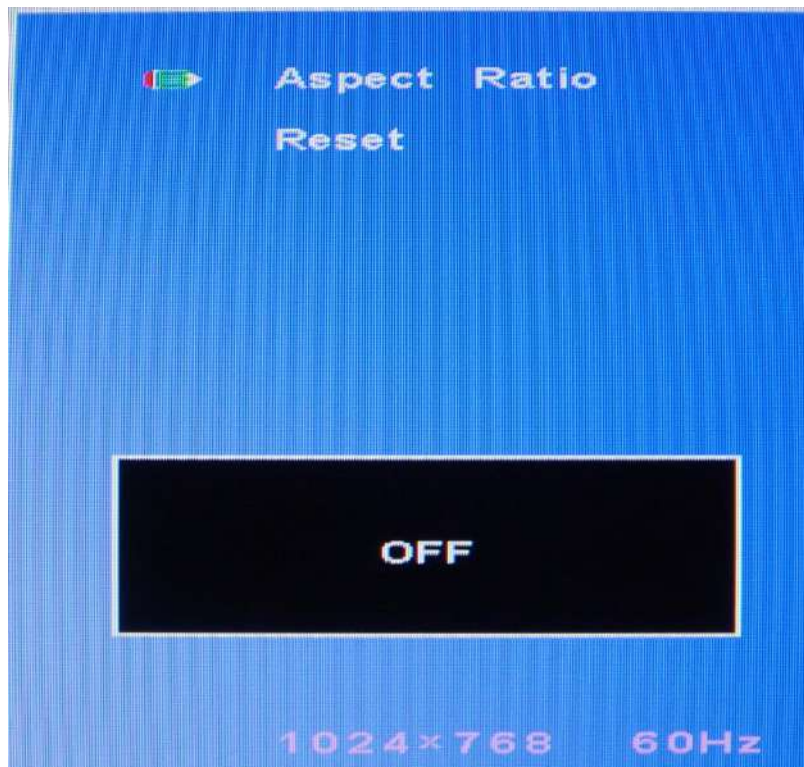
4.5

## Audio



4.6

## Special



## 5. Burn in mode

When no signal input, press “EXIT” key & “POWER” key at same time to run the “Burn in” mode, and will return to the normal mode when any source signal input.