

Atod BOARD

Model: DA007



Specification for DA007

(VGA+HDMI+DVI-D)

1. GENERAL FUNCTION

- A. Power On System On (AC power On auto turn on)
- B. Auto Signal Source detect
- C. OSD up/ down for Brightness
- D. TFT-LCD Module Driver Board
- E. Resolution up to 1920X1200@75Hz (Note1)
- F. 15 Pin D-SUB VGA Connector input
- G. HDMI Connector input.
- H. 2 VGA, DVI-D, Y Pb Pr and Y Pb Pr looping option Connector input
- I. LVDS Interface Output to Panel
- J. Burn in mode (Press MENU + Power key)
- K. Up to 10 bits per color
- L. RS232 Remote control
- M. OSD (On Screen Display) Control Menu.
- N. Supporting HDCP Protocol.(OPTIONAL)
- O. Supporting DDC/CI Protocol .(OPTIONAL)
- P. Supporting DCR function (OPTIONAL)

Support PC Timing

Item	Description	H-Freq. (KHz)	V-Freq. (Hz)
1.	VGA640×400	31.480	70.000
2.	VGA640×480	31.649	60.000
3.	VGA720×400	37.469	70.000
4.	VESA 640×480	37.862	72.809
5.	VESA 640×480	37.500	75.000
6.	VESA 800×600	35.156	56.250
7.	VESA 800×600	48.077	72.188
8.	VESA 800×600	46.875	75.000
9.	VESA 1024×768	48.363	60.000
10.	VESA 1024×768	56.476	70.000
11.	VESA 1024×768	60.023	75.000
12.	VESA 1152×864	54.948	60.057
13.	VESA 1152×864	66.095	70.016

14.	VESA 1280 x 768	47.400	60.000
15.	VESA 1280 x 768	60.300	75.000
16.	VESA 1280×960	60.000	60.000
17.	VESA 1280×960	75.000	75.000
18.	VESA 1280×1024	63.981	60.000
19.	VESA 1280×1024	79.977	75.000
20.	VESA 1440x900	59.9	60
21.	VESA 1440x900	75	75
22.	VESA 1400x1050	64.744	59.948
23.	VESA 1400x1050	82.278	74.867
24.	VESA 1600x1200	87.5	70
25.	VESA 1600x1200	93.8	75
26.	VESA 1680x1050	65.3	60
27.	VESA 1680x1050	75	75
28.	1920x1080	67.5	60
28.	VESA 1920x1200	74.5	60

**** Display Resolution depends on panel spec.

2. Specification

Model	DA007
Panel Compatibility	Compatible with XGA, SVGA, VGA resolution TFT LCD panel from various panel manufactures by Changing some jumpers setting and specified BIOS.
Maximum Resolution	Up to 10 bits per color, total 1000M Colors
Vertical Refresh Rate	VGA、SVGA、XGA AND UXGA VESA standard up to 75Hz
Input Source	VGA analog (15 pin D-Sub), HDMI, VGA2 (16 pin), DVI-D, Y Pb Pr and Y Pb Pr looping option
Audio Input	3.5 Earphone 1 Vp-p
Audio Output	2W+2W at 4 Ohm speaker
Dot Clock Maximum (pixel clock)	VGA : 165 / 210 MHz DVI : 165MHz HDMI :165 MHz
User Controls	Power On/Off OSD Menu Adjust - Adjust + Auto VOL. + (OPTIONAL) VOL. - (OPTIONAL)
Board Dimension	120 mm x 85mm
Voltage for LCD Panel	12V, 5V, 3.3V DC (Jump Select)
Storage Temperature Limits	Temperature - 40C~80C
Operation Temperature Limits	Temperature -30C~70C Humidity : Less than 85%

3. 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 VGA2 Input

WAFER 16pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	+12V (Output)	2	+12V(Output)
3	GND	4	GND
5	VGA2_B (Pb)	6	VGA2_G (Y)
7	GND	8	GND
9	AUDIO_R (input)	10	AUDIO_L(input)
11	SDA_DDC	12	SCL_DDC
13	+5V (output)	14	VGA2_R (Pr)
15	VGA2_Hsync	16	VGA2_Vsync

4-3 Key Input Connector

Location -CN2A: 8PIN WAFER PITCH 2.0mm 90D

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

Pin assign and definition

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

4-4 DVI Input Connector

WAFER 16pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	TMDS Data 2+ (Dr+)	2	TMDS Data 2- (Dr-)
3	TMDS Data 1+ (Dg+)	4	TMDS Data 1- (Dg-)
5	TMDS Data 0+ (Db+)	6	TMDS Data 0- (Db-)
7	TMDS clock+	8	TMDS clock-
9	GND	10	GND
11	DDC clock (SCL)	12	DDC data (SDA)
13	+5V	14	DVI det (DET)
15	Hot plug detect(HPD)	16	GND

4-5 RS232 Input Connector

PIN	FUNCTION
1	+5VDC
2	TX
3	RX
4	GND

Remote (CN6)

WAFER 3pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	+5V	2	IR
3	GND	4	Motion
5	Light Sensor	6	NC

Power DC (CN9)

WAFER 3 pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	+5V	2, 3	GND

Power DC (CN10)

WAFER 2pin 2.0mm

PIN	FUNCTION	PIN	FUNCTION
1	+12V	2	GND

4-3 Power Input

Location -J1 : DC JACK DC=2.0mm
12V / 2A For 2 Light Inverter or 12V / 3A for 4 Light Inverter

4-4.LVDS INPUT

Location -CN3 :2 x17 PIN, PITCH 2.0mm (10 bit)

Pin Assign and Definition

Pin No.	SYMBOL	Pin No.	SYMBOL
1	VCC	2	VCC
3	8 bit_RO0- / 10 bit RO1-	4	8 bit_RO0+ / 10 bit RO1+
5	8 bit_RO1- / 10 bit RO2-	6	8 bit_RO1+ / 10 bit RO2+
7	8 bit_RO2- / 10 bit ROC-	8	8 bit_RO2+ / 10 bit ROC+_
9	GND	10	GND
11	8 bit_ROC- / 10 bit RO3-	12	8 bit_ROC+ / 10 bit RO3+
13	8 bit_RO3- / 10 bit RO4-	14	8 bit_RO3+ / 10 bit RO4+
15	GND	16	GND
17	8 bit_RE0- / 10 bit RE2-	18	8 bit_RE0+ / 10 bit RE2+
19	8 bit_RE1- / 10 bit REC-	20	8 bit_RE1+ / 10 bit REC+
21	8 bit_RE2- / 10 bit RE3-	22	8 bit_RE2+ / 10 bit RE3+
23	GND	24	GND
25	8 bit_REC- / 10 bit RE4-	26	8 bit_REC+ / 10 bit RE4+
27	8 bit_RE3- / 10 bit RO0-	28	_8 bit_RE3+ / 10 bit RO0+
29	GND	30	GND
31	10 bit RE0-	32	10 bit RE0+
33	10 bit RE1-	34	10 bit RE1+

4-6 Inverter Connector

Location -CN1: 6 PIN WAFER PITCH 2.0mm 90D

Pin assign and definition

Pin No.	SYMBOL	Pin No.	SYMBOL
1	+12V	4	GND
2	GND	5	ON /Off
3	Adjust		

4-6A. Inverter Current Adjust : Range 0 (Inverter Current Max) to 5V (Inverter Current Min)
or PWM (100% Current Max) (10% Current Min) Frequency : 200HZ

4-6B. Inverter ON/Off : 5V (Inverter ON) or 0V (Inverter OFF)

4-7 Audio Input -CN1 , SCJ368R0NXS0G04G 3P Green or equiv.

Audio Input 1Vp-p Max.

4-8 Audio Input : 4 PIN WAFER PITCH 2.0mm 180D

Audio Input 1.6W + 1.6W at 8 Ohm

Pin	Signal
1	R+
2	R-
3	L+
4	L-

