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LITEMAX AD5766GDVA

AD Board

(1st Edition 8/06/2007)

All information is subject to change without notice.

Approved by	Checked by	Prepared by
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Revision Record

Version and Date	Page	Old description	New Description	Remark

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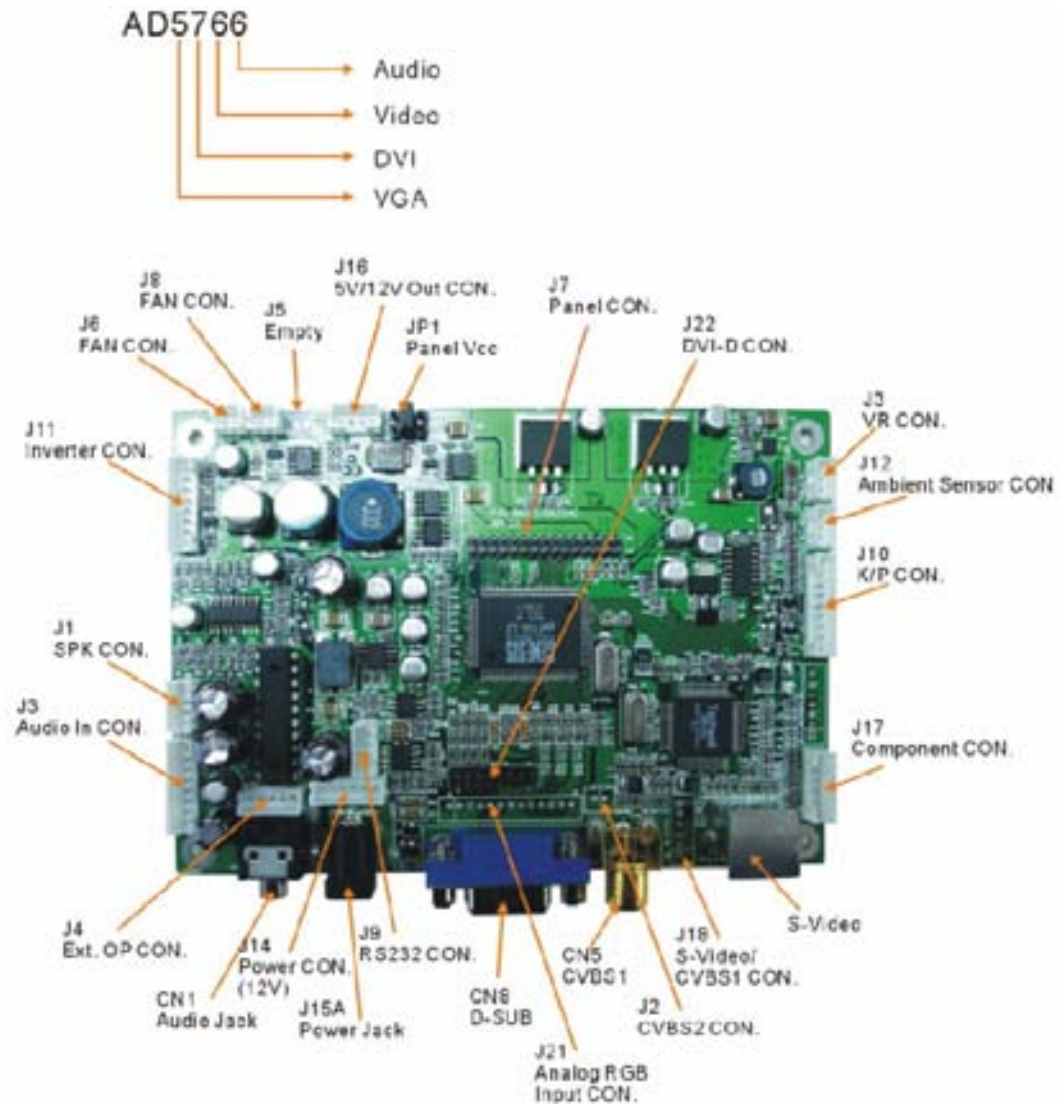
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We developed this A/D board to support industrial high brightness and commercial applications. This A/D board has many functions. It has an external luminance sensor as an option, an optional VR button to control brightness, fan rotation and thermal sensor. Rev.1 is European RoHS compliant.

General Description

- Max Resolution Up To UXGA
- Analog RGB Input up to 205MHz
- ULTRA-RELIABLE DVI INPUT
- CBVS, S-VIDEO, **YCbCr (optional) INPUT
- 1.5Wx2 Audio Out
- Dual/single LVDS interface
- Support Panel DC5V or 3.3V, 12V Output
- Automatic External Fan Control
- OSD Control
- Inverter 0~5V Dimming Control
- *External V.R. brightness control (optional)
- *External light sensor brightness control (optional)
- *External RS232 control (optional)
- Input Power 12Vdc

Release Model: AD5766



Supported Timing (*by your panel resolution)

The following table displays optimum quality modes that the LCD monitor provides. If the other video modes are used, the monitor will stop working or display a poor quality picture.

TIMMING	
MODE	RESOLUTION
VGA	640x480@60Hz
	640x480@72Hz
	640x480@75Hz
SVGA	800x600@56Hz
	800x600@60Hz
	800x600@72Hz
	800x600@75Hz
XGA	1024x768@60Hz
	1024x768@70Hz
	1024x768@75Hz
SXGA	1280x1024@60Hz
	1280x1024@70Hz
	1280x1024@75Hz
WXGA	1366x768@60Hz
SXGA+	1400x1050@60Hz(Pixel f 101.000MHz)
	1400x1050@60Hz(Pixel f 121.750MHz)
	1400x1050@75Hz
UXGA	1600x1200@60Hz
	1600x1200@65Hz
	1600x1200@75Hz

JP7: Panel connector

Pin No.	Function	Pin No.	Function
1	RxO0+	16	RxE1-
2	RxO0-	17	RxE2+
3	RxO1+	18	RxE2-
4	RxO1-	19	RxEC+
5	RxO2+	20	RxEC-
6	RxO2-	21	RxE3+
7	RxOC+	22	RxE3-
8	RxOC-	23	GND
9	RxO3+	24	GND
10	RxO3-	25	GND
11	GND	26	GND
12	GND	27	GND
13	RxE0+	28	PANEL-VCC
14	RxE0-	29	PANEL-VCC
15	RxE1+	30	PANEL-VCC

J22: DVI-D Connector (16pin 2.0mm)

Pin No.	Function	Pin No.	Function	Pin No.	Function
1	RX2-	7	DDC_SDA	13	GND
2	RX2+	8	DDC_SCL	14	DVI_CAB
3	RX1-	9	GND	15	DVI2
4	RX1+	10	GND	16	DVI_5V
5	RX0-	11	RXC-		
6	RX0+	12	RXC+		

CN8: Analog RGB Input connector (D-SUB 15Pin)

Pin No.	Symbol	Description	Pin No.	Symbol	Description
1	RED	Analog Red	9	NC	+5VDC
2	GREEN	Analog Green	10	SGND	Sync GND
3	BLUE	Analog Blue	11	NCD	Reserved
4	GND	Reserved	12	SDA	DDC Serial Data
5	NC	VGA_CAB	13	HSYNC	Horizontal Sync
6	RGND	Red Return	14	VSYNC	Vertical Sync
7	GGND	Green Return	15	SCL	DDC Data Clock
8	BGND	Blue Return			

J21: Analog RGB Input connector (13pin connector)

Pin No.	Symbol	Description	Pin No.	Symbol	Description
1	SCL	DDC Data Clock	8	RED	Analog Red
2	SDA	DDC Serial Data	9	GGND	Green Return
3	GND	Reserved	10	GREEN	Analog Green
4	NC	VGA_CAB	11	BGND	Blue Return
5	VSYNC	Vertical Sync	12	BLUE	Analog Blue
6	HSYNC	Horizontal Sync	13	NC	+5VDC
7	RGND	Red Return			

J15A: Power Jack (12V)

Pin No.	Function	Pin No.	Function
1	12VDC	2	GND
3	GND	4	

J14: Power DIN(12V)

Pin No.	Function	Pin No.	Function
1	12VDC	2	12VDC
3	GND	4	GND

J14: Power connector (12V) (6PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	12VDC	4	GND
2	12VDC	5	GND
3	12VDC	6	GND

J16: Power connector (5V/12v)(4PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	5VDC	2	GND
3	12VDC	4	GND

J11: Inverter Connector(8PIN 2.0mm)

Pin No.	Symbol	Description	Pin No.	Symbol	Description
1	ON/OFF	Backlight ON/OFF	5	GND	GND
2	BRIGHT	Dimming adjust	6	12VDC	Input 12VDC
3	GND	GND	7	12VDC	Input 12VDC
4	GND	GND	8	12VDC	Input 12VDC

J6, J8: FAN (2PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	FAN(+)	2	GND

J10: Key Pad (9PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	POWER KEY	6	MENU KEY
2	GREEN LED	7	AUTO KEY
3	RED LED	8	GND
4	LEFT KEY	9	GND
5	RIGHT KEY		

J4: Ext. AudioOP Connector (5PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	12VDC	4	GND
2	12VDC	5	GPO_36/STBY2
3	GND	6	

J1: Speaker Connector (4PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	SPK-R	2	GND
3	SPK-L	4	GND

CN5: CVBS1 JACK

Pin No.	Function	Pin No.	Function
1	GND	2	CVBS1

J2: CVBS2 Connector (2PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	GND	2	CVBS2

CN7: S-VIDEO Input Connector

Pin No.	Function	Pin No.	Function
1	GND	2	Y
3	GND	4	C

J18: Ext.S-VIDEO/CVBS1 Connector (6PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	GND	4	S-VIDEO Y
2	CVBS1	5	S-VIDEO C
3	GND	6	GND

J17: Component Input Connector (6PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	Y	4	GND
2	GND	5	Cr
3	Cb	6	GND

J3 Audio in Connector (8PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	12VDC	5	5VDC
2	12VDC	6	Volume
3	GND	7	Mute
4	GND		

J12: Ambient (3PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	3.3VDC	3	GND
2	L_Sensor		

J13: VR connector (3PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	3,3VDC	2	VR
3	GND		

J9: G-PROBE (RS232)(4PIN 2.0mm)

Pin No.	Function	Pin No.	Function
1	5VDC	3	RXD
2	TXR	4	GND

JP1: PANEL VCC (3PIN 2.54mm)

Pin No.	Function	Pin No.	Function
1-2	12V	5-6	3.3V
3-4	5V		

DC characteristics.

Power Consumption	6W	Note1
Operation Temperature	0~70	°C
Storage Temperature	-20~85	°C

Note: These values are for the A/D board body.

OSD menu


By pressing the “menu” button, you will see the below picture. Across from timing you will see resolution, frequency, and V-frequency of the panel. Version shows the firmware control version. These cannot be altered by the user.





There are 7 sub menus within the OSD user interface: Brightness, Signal Select, Sound, Color, Image, Tools, and Exit.


When you press the “menu” button, you enter the “Brightness” sub directory. In this directory, you will see 4 selections:




 press "right" key


 Press the “menu” once, to adjust the brightness. Press “left” to dim down the brightness to “0”, press “right” to increase the brightness to “100”

 **Ambient light sensor:** Press this Icon for auto dimming. (OPTION) To use this option, the Litemax ambient light sensor needs to have been installed

 **Potentiometer:** Navigate to this icon to adjust the VR function. (OPTION)

 **Ambient light sensor with OSD offset:** To set minimum brightness level based on ambient light.

 Press "right" key

 Press 'menu" once, to adjust minimum luminance to fit your application (OPTION)



Contrast: Press “menu” and “right” buttons to adjust the contrast from “0” to “100”. To adjust from “100” to “0”, press “menu” and the “left” buttons.



Exit: You can exit this sub menu back to normal screen.



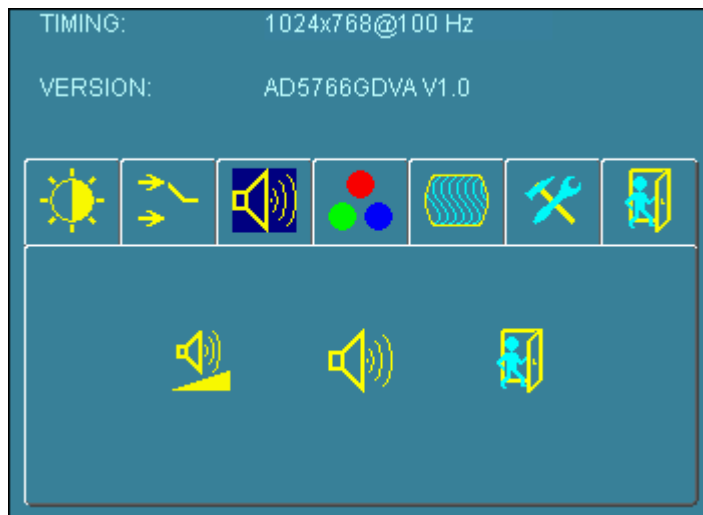
VGA **Analog:** RGB/VGA input

DVI **Digital:** DVI input

AV1 **AV1:** Composite input

S-Video **S-Video:** S-Video input

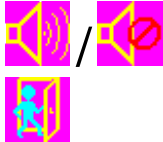
Exit **Exit:** You can exit this sub menu back to the beginning



There are 3 options for “Sound” sub page.

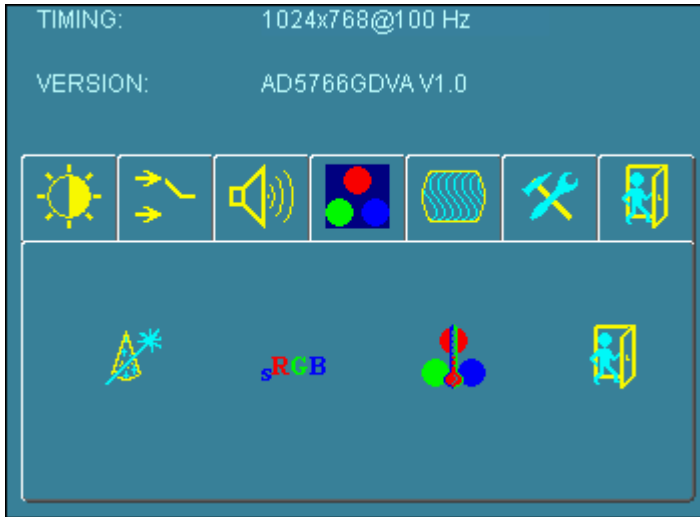


Audio Volume: Audio volume adjustment.



UnMute/Mute: You can mute the speaker by pressing this option.

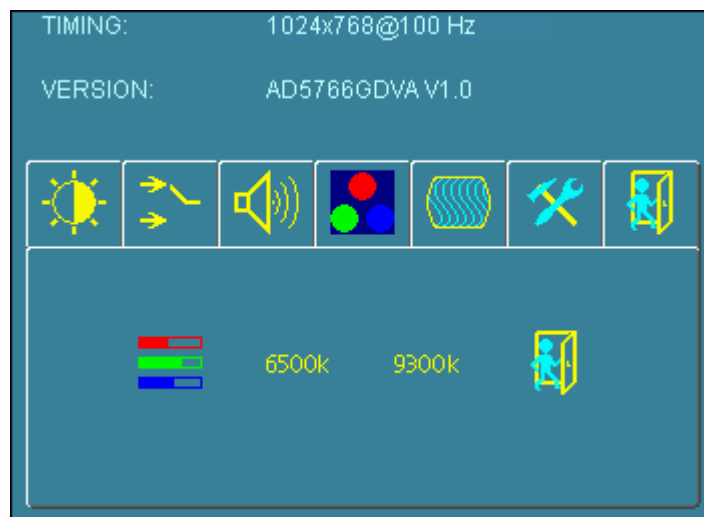
Exit: back to the beginning menu.



Auto Color: By navigating over to the “Auto Color” option, optimal color performance is invoked.



sRGB: Windows standard color setting



Color Temperature: You have 3 options in this selection



Color Temperature User Define: Default is 100 for “R”, “G”, and “B”.



Color Tempture_6500K: Warm color scheme

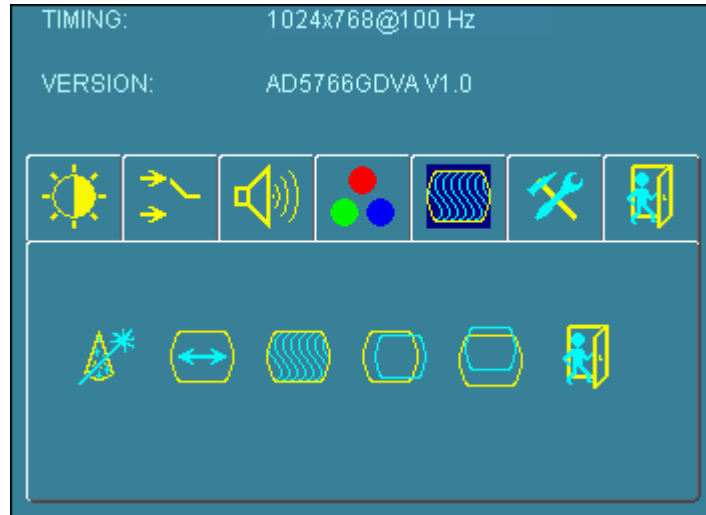


Color Tempture_9300K: Cold color scheme



Exit: back to the normal screen.

Go to the “Image” page, and you will see the below picture



Auto Adjust: Choose this option and the AD5766 will adjust to the optimal horizontal and vertical frequency. You will see “Auto tune....” on the screen for around 3 seconds.



Clock: If you are not satisfied with the Auto tune result, you can adjust manually by pressing “Clock”. Using this will make the image wider.



Phase: If “double images” appear around the characters, choose “Phase” to remove them..



HPos: You can shift the screen horizontally using this function.

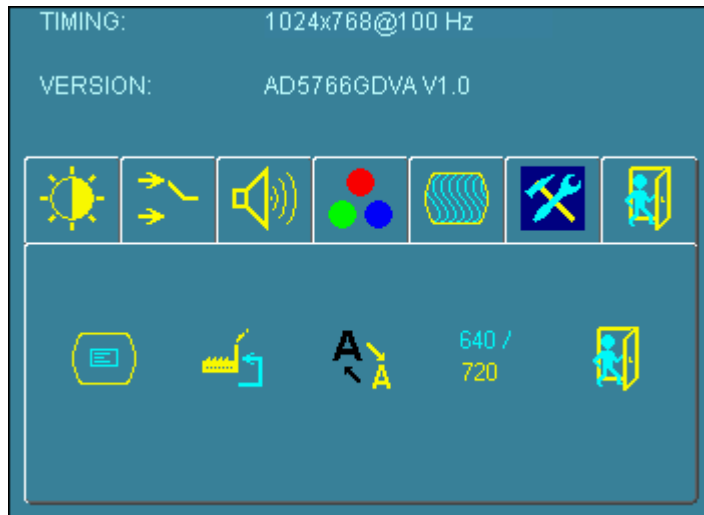


Vpos: You can shift the screen vertically using this function.

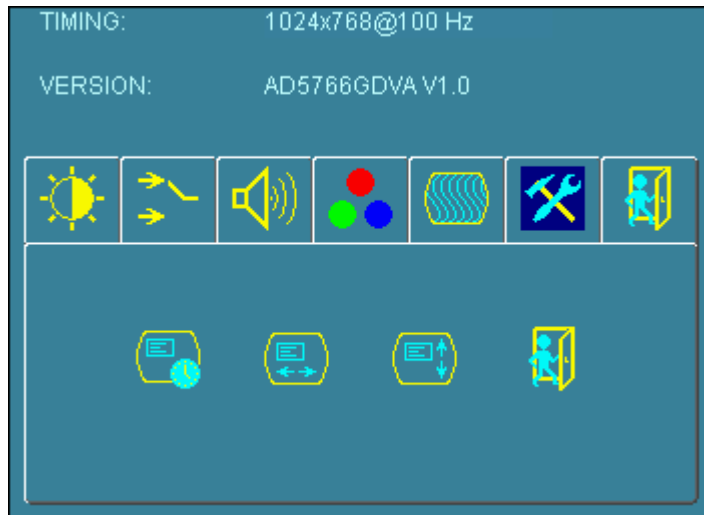


Exit: Back to normal screen.

On the “Tools” sub menu, you will see 5 icons.



OSD Control: Selecting this option, brings you to 4 more options:



Osd_time: Select time for the OSD user interface to stay on screen, for 2 sec. to 16 sec. Default is 6 sec.



Osd_HPos: Moves the OSD user interface horizontally on screen.



Osd_VPos: Moves the OSD user interface vertically on screen.



Exit: back to main menu.



Factory_Reset: By pressing this, the screen will revert to factory settings, and the previous settings will be deleted.



Sharpness: Sharpen characters.

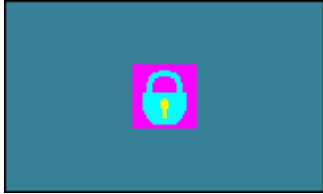


Dos_mode/Gxf_mode: For some old programs which use 640x400 and 720x400 (DOS Mode and graphics mode), This option needs to be selected manually.



Exit

OSD Lock Function: It is possible to lock all the OSD buttons to prevent unauthorized changes to occur by pressing “Menu” and “right >” buttons simultaneously. You will see the “lock” icon below on the center of the screen for 3 seconds. If any button is pushed after the lock function is initiated, the below icon will appear on the screen.’



To release the OSD lock, press “Menu” and “Right >”. The below icon will appear on the center of the screen for 3 seconds. Now all OSD keys are active again.

