



**HIGHNESS**<sup>TM</sup>

**LCD - AD-CONTROLLER BOARD**  
**Model No. AB1920TL-5000AOE**



**Release Date**  
**30<sup>th</sup> Sep 2019**

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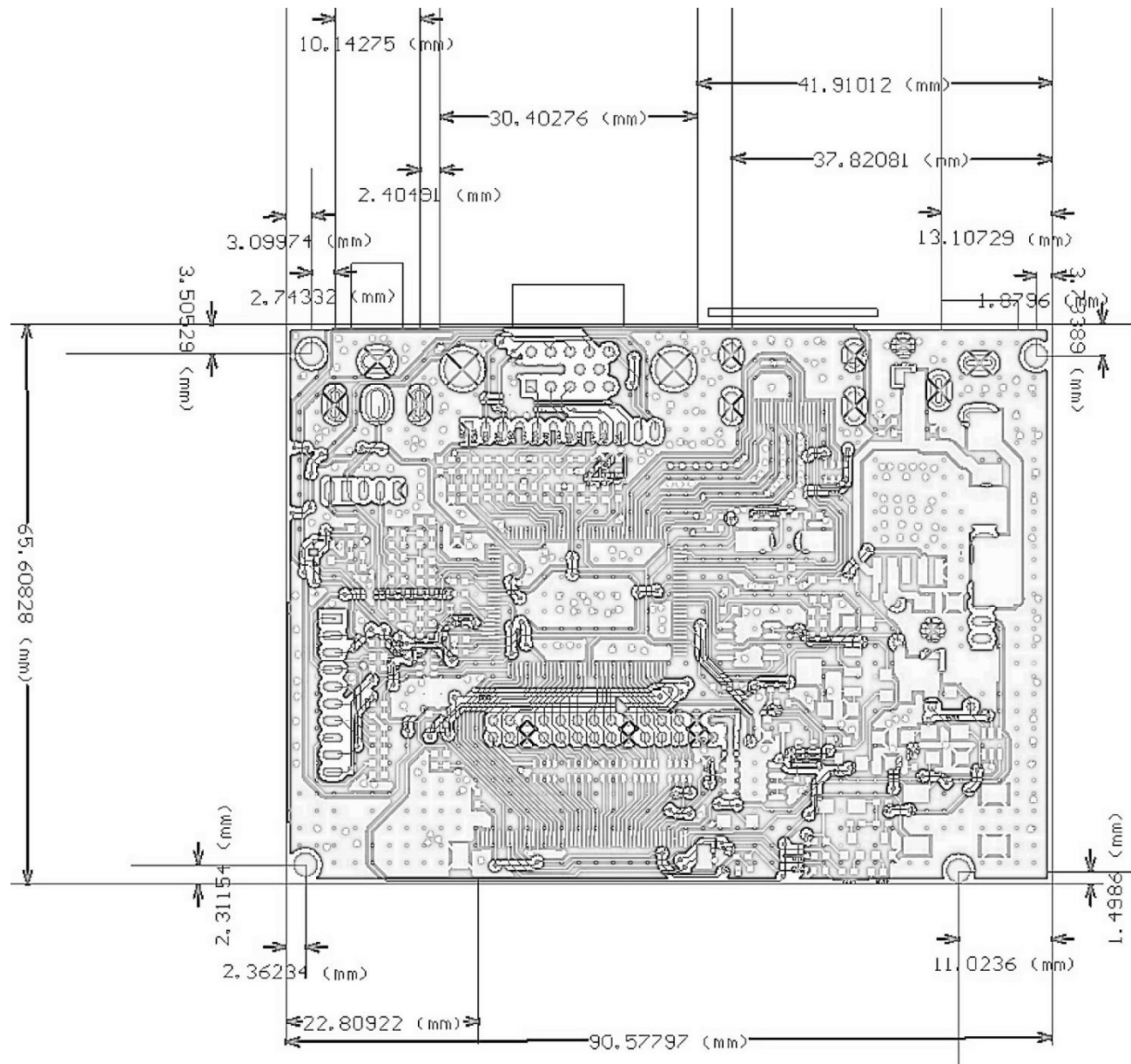
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# 1. Specification:

Model No.		AB1920TL-5000AOE
Chipset		800099
Supported Resolution	PC-RGB	Up to 1920 x 1080
	HDMI	Up to 1920 x 1080
Power Supply	Power Requirement	Input Power 12V (24V Optional)
	To Supply	3.3V, 5V, 12V
	Manage	Low Power Consumable mode: Standby<3W
Key Functions		ON/OFF, Menu, Source, (+), (-).
Terminal Input	PC-RGB Input	1D-SUB 15pin terminal blue color
	HDMI	1HDMI Metal terminal
	CVBS	RCA connector
Technical 's Output	To Panel	LVDS 2 x 15 30pin Jack (Pitch 2.0mm) 18/24bit
		TTL 50pin
Output Interface		LVDS & TTL
Operating Temperature		0 ~ 40°C
Storage Temperature		-10 ~ 60°C
Humidity		≤80% (Non-Condensing)
Size		90.57 x 65.60 mm

## 2. Dimension:

### (i) Ad-Board:



### 3. Ad-Board Picture:

(i) Top View:



## 4. Connector & Pin assignment:

### 4.1 Output Connection: (LVDS Connector 2x 15pin Pitch=2.0mm) CN1:

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VCC	9	LAX1 +	17	LAX3 +	25	GND
2	VCC	10	LAX1-	18	LAX3-	26	GND
3	VCC	11	LAX2 +	19	LBX0 +	27	LBCK +
4	GND	12	LAX2-	20	LBX0-	28	LBCK-
5	GND	13	GND	21	LBX1 +	29	LBX3 +
6	GND	14	GND	22	LBX1-	30	LBX3-
7	LAX0 +	15	LACK +	23	LBX2 +		
8	LAX0-	16	LACK-	24	LBX2-		

### 4.2 Output Connection: (TTL 50pin) CON1:

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VLED+	14	B5	27	G0	40	U/D
2	VLED+	15	B4	28	R7	41	VGH
3	VLED-	16	B3	29	R6	42	VGL
4	VLED-	17	B2	30	R5	43	AVDD
5	GND	18	B1	31	R4	44	RESET
6	VCOM	19	B0	32	R3	45	NC
7	DVDD	20	G7	33	R2	46	VCOM
8	MODE	21	G6	34	R1	47	DITHB
9	DE	22	G5	35	R0	48	GND
10	VS	23	G4	36	GND	49	NC
11	HS	24	G3	37	DCLK	50	NC
12	B7	25	G2	38	GND		
13	B6	26	G1	39	L/R		

## 4.2 Input Interface Details:

### (I) VGA Interface Details (12 pin VGA Connector) J4:

Pin	Function	Pin	Function	Pin	Function
1	GND	5	R	9	B
2	V	6	GND	10	GND
3	H	7	G	11	SDA
4	GND	8	GND	12	SCL

### (II) HDMI Connection (HDMI Connector):

Pin	Function	Pin	Function	Pin	Function
1	TMDS Data2+	8	TMDS Data0 Shield	15	SCL
2	TMDS Data2 Shield	9	TMDS Data0-	16	SDA
3	TMDS Data2-	10	TMDS Clock+	17	DDC/CEC Ground
4	TMDS Data1+	11	TMDS Clock Shield	18	+5V Power
5	TMDS Data1 Shield	12	TMDS Clock-	19	Hot Plug Detect
6	TMDS Data1-	13	CEC		
7	TMDS Data0+	14	Utility		

### (III) AV Interface Details J5:

Pin	Function	Pin	Function	Pin	Function
1	ACC	3	GND	5	GND
2	AV1	4	AV2	6	

### (IV) Power Interface Details (Connector 4 pin) J3:

Pin	Function	Pin	Function
1	+12V	3	GND
2	+12V	4	GND

### (V) OSD Interface Details (Connector 6pin)J6:

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	5V	4	POWER	7	-	10	LED-G
2	GND	5	MENU	8	SOURCE		
3	IR	6	+	9	LED-R		

## 5. Inverter Interface Details (Connector 6 pin) J1:

Pin	Function	Pin	Function
1	+12V	4	air
2	+12V	5	GND
3	EN	6	GND

## 6. Supported Resolution:

800 x 600
1024 x 768
1152 x 864
1280 x 600
1280 x 720
1280 x 768
1280 x 800
1280 x 960
1280 x 1024
1360 x 768
1366 x 768
1400 x 1050
1440 x 900
1600 x 900
1680 x 1050
1920 x 1080