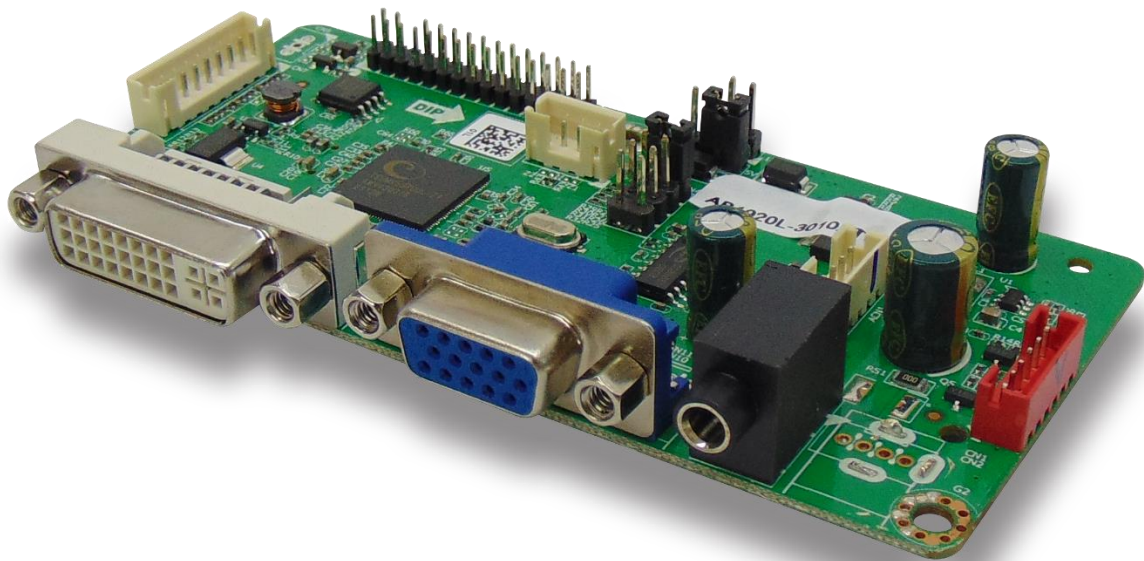




HIGHNESSTM

LCD - AD-CONTROLLER BOARD
Model No. AB1920L-3010AT-V1



Release Date
1st Jul 2021

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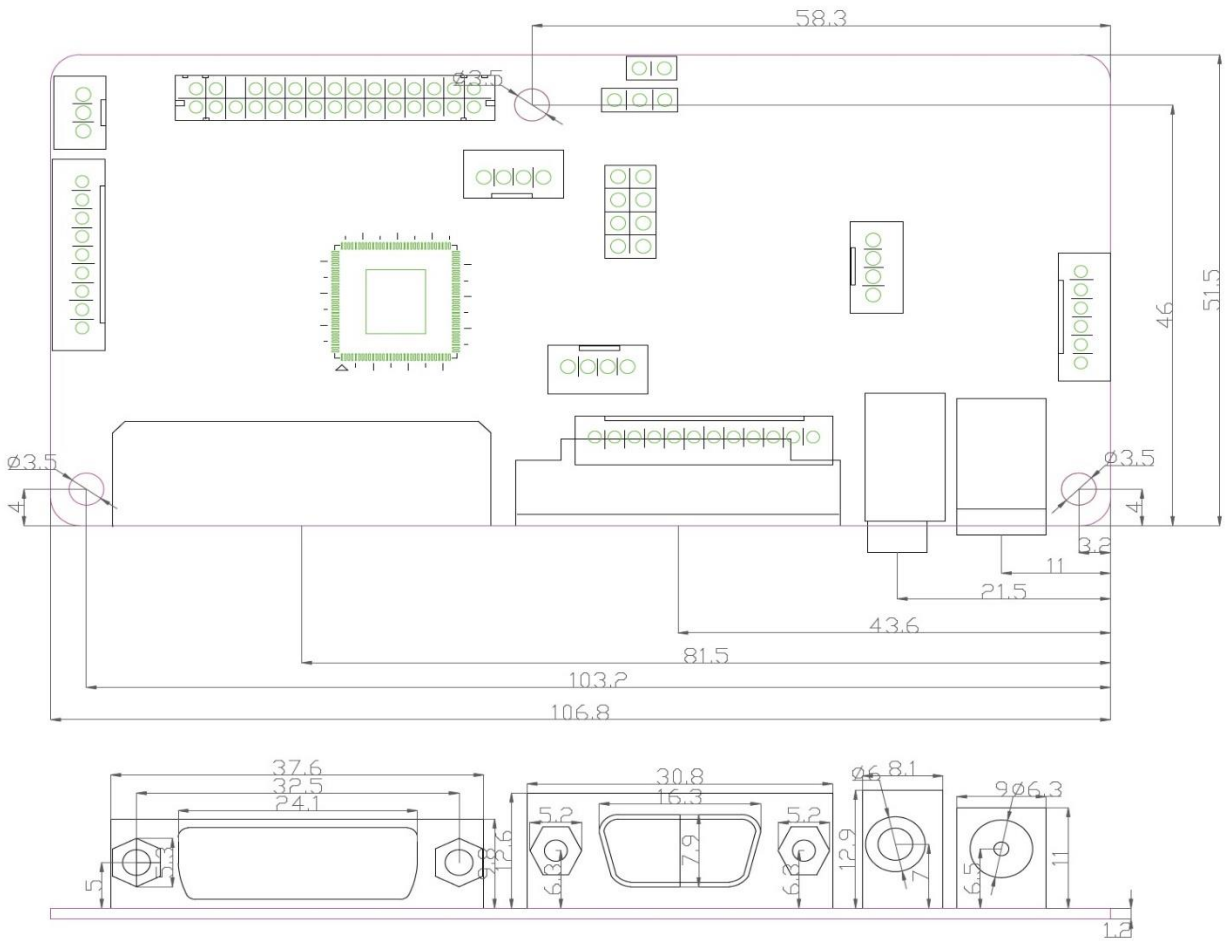
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1. Specification:

Model No.		AB1920L-3010AT-V1
Chipset		TSUMV53RUUL
Supported Resolution	RGB	Up to 1920 x 1080@60HZ
	DVI	Up to 1920 x 1080@60HZ
Power Supply	Power Requirement	Input Power 12V DC
	To Supply	3.3V, 5V, 12V
	Manage	Low Power Consumable mode: Standby<2.5W
Key Functions		EXIT, M, AUTO, V-, V+, G, R,O/F
Audio Output		2 x 2 W @ (4 OHM)
Terminal Input	PC-RGB Input	1 x D-SUB 15pin terminal blue color
	DVI Input	1 x DVI 24pin Jack white color
	PC-RGB Audio input	1 Earphone Terminal Black Color
Technical 's Output	To Panel	LVDS 2 x 15 30pin Jack (Pitch 2.0mm) 18/24bit
Output Interface		18 / 24-bit LVDS
Operating Temperature		0 ~ 40°C
Storage Temperature		-10 ~ 60°C
Humidity		≤90% (non-Condensing)
Size		106.8 x 51.5 mm

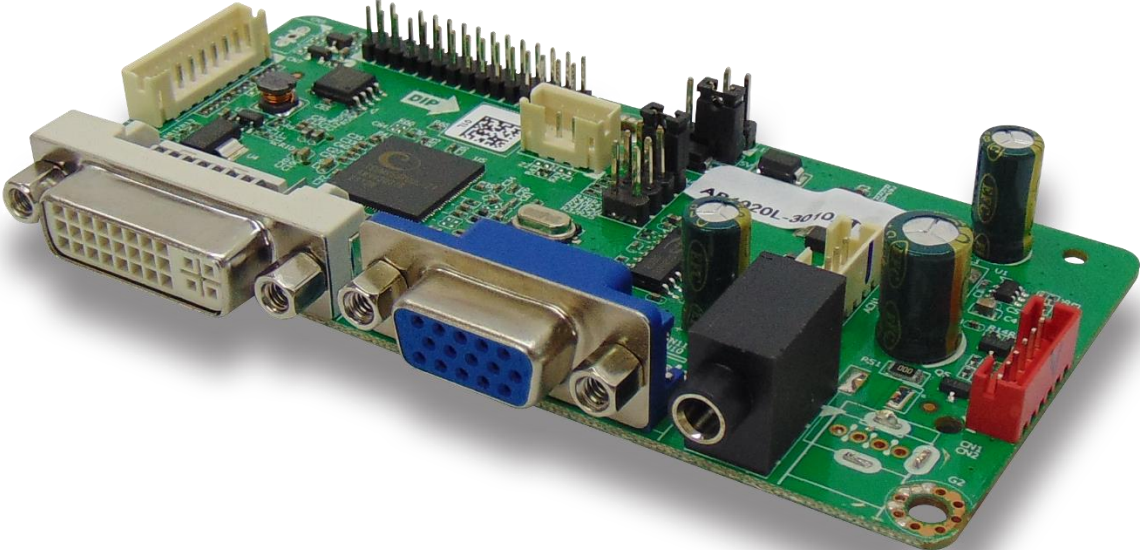
2. Dimension:

(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): CN8

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VCC	9	O1-	17	O3-	25	GND
2	VCC	10	O1+	18	O3+	26	GND
3	VCC	11	O2-	19	E0-	27	EC-
4	GND	12	O2+	20	E0+	28	EC+
5	GND	13	GND	21	E1-	29	E3-
6	NC	14	GND	22	E1+	30	E3+
7	O0-	15	OC-	23	E2-		
8	O0+	16	OC+	24	E2+		

4.2 Input Interface Details:

(I) VGA Interface Details (15 pin VGA Connector): CN13

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

(II) DVI Connection (24 pin DVI Connector):

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	TMDS Data 2-	7	DDC Data	13	TMDS Data 3+	19	TMDS Data 0/5
2	TMDS Data 2+	8	TMDS Data 1-	14	5V Power	20	TMDS Data 5-
3	TMDS Data 2/4	9	TMDS Data 1+	15	GND	21	TMDS Data 5+
4	TMDS Data 4-	10	TMDS Data 1+	16	Hot Plug Detect	22	TMDS Clock Shld
5	TMDS Data 4+	11	TMDS Data 1/3	17	TMDS Data 0-	23	TMDS Clock-
6	DDC Clock	12	TMDS Data 3-	18	TMDS Data 0+	24	TMDS Clock+

(III) Power Interface Details (Connector 4 pin): CN2

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

(IV) Audio Interface Details (Connector 4pin): ACN1

Pin	Function	Pin	Function
1	RP	3	LN
2	RN	4	LP

(V) OSD Interface Details (Connector 9pin): CN7

Pin	Function	Pin	Function	Pin	Function
1	EXIT	4	V-	7	G_LED
2	MENU	5	V+	8	R_LED
3	AUTO	6	GND	9	ON/OFF

5. Inverter Interface Details (Connector 6 pin): CN3

Pin	Function	Pin	Function
1	GND	4	BKLTON
2	GND	5	+12V
3	ADJUST	6	+12V

6. Supported Resolution:

800 × 600
1024 × 768
1024 × 600
1280 × 1024
1280 × 800
1366 × 768
1440 × 900
1680 × 1050
1920 × 1080
1920 × 1200

7. Power Selection Jumpers:

Pin	Function	Pin	Function
1	3.3V	3	5V
2	GND		