



HIGHNESSTM

LCD - AD-CONTROLLER BOARD

Model No. AB2048L-4010AC



Release Date
21st Dec 2020

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH IS SOLELY OWNED BY 'HIGHNESS MICROELECTRONICS PVT LTD'. ANY UNAUTHORISED COPY OR PRINTING OR PUBLISHING OF INFORMATION IN THIS DOCUMENT IN PART OR IN COMPLETE IS RESTRICTED.

HIGHNESS MICROELECTRONICS PVT LTD.

Email: sales@highnessmicro.com, URL: www.highnessmicro.com

Index

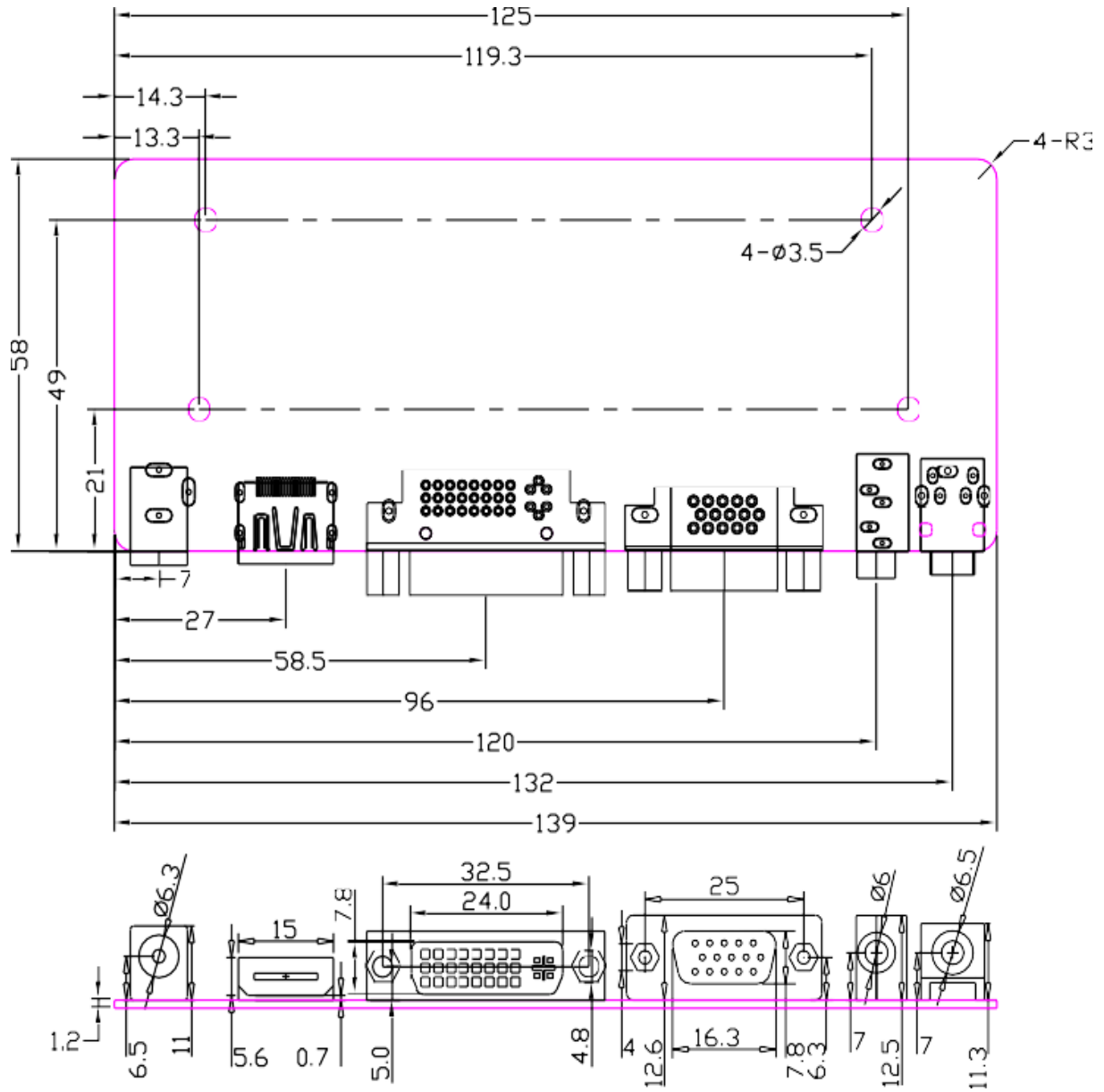
1} Specification of Ad-Board.....	3
2} Dimensions of Ad- Board	4
3} Picture of Ad-Board	5
4} Connector & Pin assignment.....	6
5} Output Connector.....	6
6} Input Connector.....	7
7} Inverter Interface Details.....	7
8} Supported Resolution	8

1. Specification:

Model No.		AB2048L-4010AC
Chipset		68676
Supported Resolution	PC-RGB	Up to 2048 x 1152 @60Hz
	HDMI	
	DVI	
Audio Input	PC-RGB	PC: Earphone input
Power Supply	Power Requirement	Input Power 12V
	To Supply	3.3V, 5V, 12V
	Manage	Standby Power Consumable < 0.2W
Key Functions		POWER, MENU, VOL+, VOL-, ADJUST/EXIT
Audio Output		2 x 1W (8 OHM)
Terminal Input	DC Input	1 DC terminal black color
	PC-RGB Input	1D-SUB 15PIN terminal blue color
	HDMI Input	1 19PIN terminal
	DVI Input	1 24PIN terminal 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) 8bit
Output Interface		8bit LVDS
Operating Temperature		0 ~ 40°C
Storage Temperature		-10 ~ 60°C
Humidity		≤80% (Non-Condensing)
Size		139 x 58 mm

2. Dimension:

(i) Ad-Board:

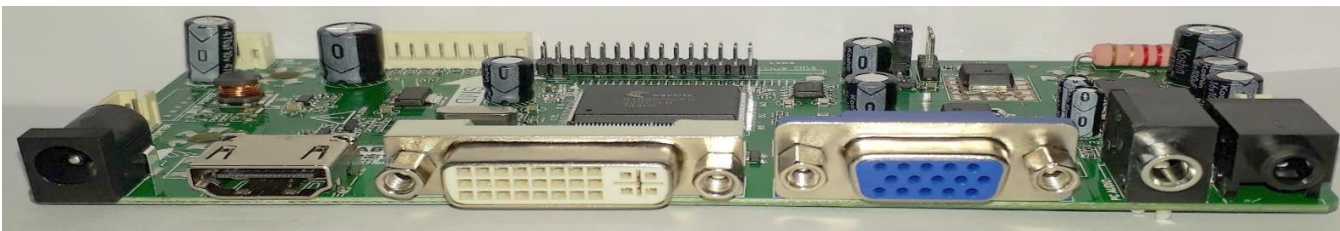


3. Ad-Board Picture:

(i) Top View:



(ii) Port View:



4. Connector & Pin assignment:

4.1 Output Connection: (LVDS Connector 2x 15pin Pitch=2.0mm): CN25

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VSEL	9	TXO1-	17	TXO3-	25	GND
2	VSEL	10	TXO1+	18	TXO3+	26	GND
3	VSEL	11	TXO2-	19	TXE0-	27	TXEC-
4	GND	12	TXO2+	20	TXE0+	28	TXEC+
5	GND	13	GND	21	TXE1-	29	TXE3-
6	GND	14	GND	22	TXE1+	30	TXE3+
7	TXO0-	15	TXOC-	23	TXE2-		
8	TXO0+	16	TXOC+	24	TXE2+		

4.2 Input Interface Details:

(I) VGA Interface Details (15 pin VGA Connector): CN16

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	Red	5	Ground	9	No Connection	13	Horizontal Sync
2	Green	6	Ground- Red	10	Ground- Sync	14	Vertical Sync
3	Blue	7	Ground- Green	11	No Connection	15	Clock (SCL)
4	No Connection	8	Ground- Blue	12	Data (SDA)		

(II) HDMI Interface Details (20 pin HDMI Connector): CN18

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	RX2P0	6	RX0N0	11	NC	16	POWER
2	RX2N0	7	RXCPO	12	NC	17	GND
3	RX1P0	8	RXCNO	13	GND	18	GND
4	RX1N0	9	DDCBSCL	14	NC	19	NC
5	RX0P0	10	DDCBSDA	15	HDMIB_HP	20	STB_5V

(III) DVI Connection (29 pin DVI Connector): CN15

Pin	Function	Pin	Function	Pin	Function
1	RX 2-	9	RX 1-	17	RX 0-
2	RX 2+	10	RX 1+	18	RX 0+
3	GND	11	GND	19	GND
4	N/C	12	N/C / + 12V	20	N/C
5	N/C	13	N/C / + 12V	21	N/C
6	DDC_Clock	14	+ 5V / + 12V	22	GND
7	DDC_Data	15	GND	23	RXC+
8	CRT_Vsync	16	N/C	24	RXC-
	C1_RED		C_5 AGND		C3_BLUE
	C2_GREEN				C4_CRT_Hsync

(IV) Speaker Interface Details (Connector 4pin): CN20

Pin	Function	Pin	Function
1	LO	3	GND
2	GND	4	RO

(V) OSD Interface Details (Connector 10pin) CN11

Pin	Function	Pin	Function	Pin	Function
1	K0	5	K1	9	K5
2	RED	6	K2	10	K6
3	GRN	7	K3		
4	GND	8	K4		

(VI) Remote Receiver Interface (Connector 3pin) CN10

Pin	Function	Pin	Function
1	IR	3	IR-VCC
2	GND		

(VII) Panel Parameter Interface (Connector 2x 4 pin) CN3

Pin	Function	Pin	Function
1	PWON	5	GND
2	5VSB	6	GND
3	5V		
4	5V		

5. Inverter Interface Details (Connector 6 pin): CN5

Pin	Function	Pin	Function
1	12V	4	ADJ
2	12V	5	GND
3	BLO	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
1920 x 1200
2048 x 1152