



**ENCORE**

## LCD - AD-CONTROLLER BOARD

Model No. AB1920TL-200XS

FUNCTIONAL DRAFT SPECIFICATION

(This document is meant for customers' approval)

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**ENCORE ELECTRONIC ENGINEERING LTD.**

Email : [sales@encore-electronic.com](mailto:sales@encore-electronic.com) URL: [www.encore-electronic.com](http://www.encore-electronic.com)

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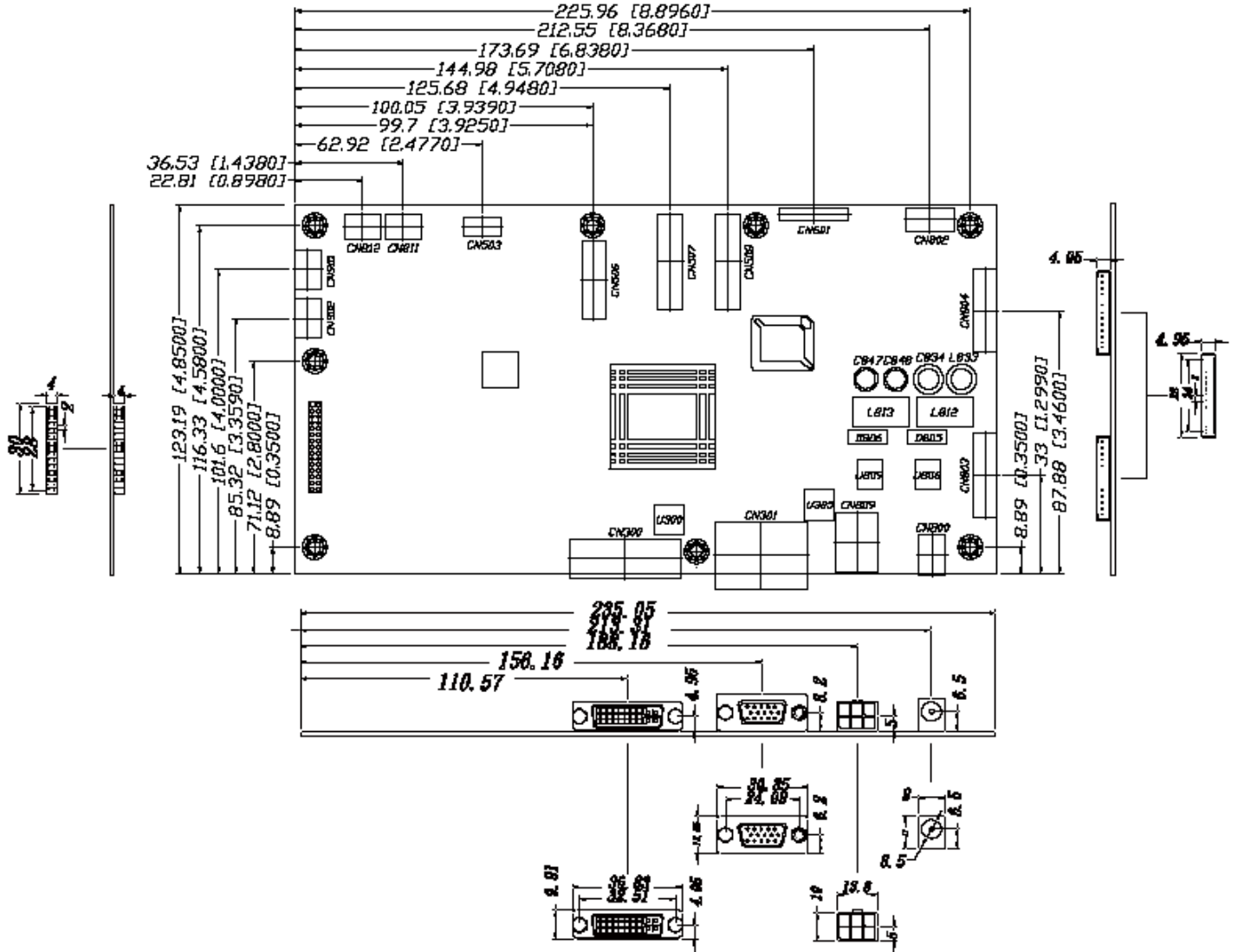
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# 1. Specification:

Model No.		<b>AB1920TL-200XS</b>
Chipset		U500
Supported Resolution	PC-RGB	VGA : 640 X 480 / 720 X 400
		SVGA : 800 X 600
		XGA: 1024 X 768
		SXGA: 1280 X 1024
	WUXGA: 1920 X 1200	
	DVI	DVI-I /DVI-D DDC
Audio Input	PC-RGB/DVI	PH Connector input
Power Supply	Power Requirement	Input Power 12V / 50W
	To Supply	3.3V, 5V, 12V
	Manage	Low Power Consumable mode: Standby<1W
OSD Language (Optional)		English ( Chinese, French, Spanish)
Key Functions		Auto, Menu, VOL -, VOL +, VGA/DVI, ON/OFF
Terminal Input	PC-RGB Input	1D-SUB 15pin terminal blue color
	DVI Input	1DVI 29pin Jack white color
	SDI Signal (Optional)	Header-30 Connector
Technical's Output	To Panel	LVDS 2 x 15 30pin Jack (Pitch 2.0mm) 18/24bit
	To Speaker	PH2.0 4pin Connector output
Output Interface		Single 18 / 24-bit & Dual 48-bit/36-bit LVDS
Operating Temperature		-20 - +70°C
Storage Temperature		-30 - +90°C
Humidity		≤90% (Non-Condensing)
Size		235 (L) x 123 (W) mm

# 2. Dimension:

## (i) Ad-Board:



### 3. Ad-Board Picture:

(i) Top View:



## 4. Connector & Pin assignment:

### 4.1 Output Connection: (LVDS Connector Hirose DF13-30P) CN506:

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	+5V	9	A1P	17	A3P	25	GND
2	+3.3V	10	A5P	18	A7P	26	GND
3	A0M	11	A2M	19	GND	27	+12V
4	A4M	12	A6M	20	GND	28	+12V
5	A0P	13	A2P	21	CLK1M	29	VDD_LCD
6	A4P	14	A6P	22	CLK2M	30	VDD_LCD
7	A1M	15	A3M	23	CLK1P		
8	A5M	16	A7M	24	CLK2P		

### 4.2 Output Connection :( TTL Connector Hirose DF13-40P) CN507, CN508 (Optional)

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	GND	11	ER4	21	EG0	31	EG5
2	EB1	12	EB6	22	V-SYNC	32	+12V
3	ER0	13	ER5	23	EG1	33	EG6
4	EB2	14	EB7	24	H-SYNC	34	+3.3V
5	ER1	15	ER6	25	EG2	35	EG7
6	EB3	16	GND	26	GND	36	VDD_LCD
7	ER2	17	ER7	27	EG3	37	GND
8	EB4	18	SCLK	28	DEN	38	VDD_LCD
9	ER3	19	GND	29	EG4	39	EB0
10	EB5	20	GND	30	+5V	40	NC

### 4.3 Input Interface Details:

#### (I) VGA Interface Details (DB-15 pin VGA Connector):CN301

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

## (II) DVI-D Connection (29 pin DVI Connector):CN300

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

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

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

## (IV) OSD Interface Details (Connector 9pin) CN601

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	3.3V	5	Key_L	9	Menu	13	LED_R
2	GND	6	N/C	10	GND	14	LED_G
3	Reserve	7	N/C	11	On/Off		
4	Confirm	8	Key_R	12	GND		

## 5. Inverter Interface Details (Connector 7 pin): CN802

Pin	Function	Pin	Function
1	VDD_In	5	On/Off
2	VDD_In	6	PWM
3	GND	7	VR
4	GND		

## 7. Frequency Details:

VGA	SVGA	XGA
640 x 480 x 60HZ 640 x 454 x 66.2HZ 640 x 480 x 72HZ 640 x 480 x 75HZ 640 x 480 x 85HZ 640 x 480 x 66HZ	800 x 600 x 56HZ 800 x 600 x 60HZ 800 x 600 x 72HZ 800 x 600 x 75HZ 800 x 600 x 85HZ 832 x 624 x 75HZ	1024 x 768 x 60HZ 1024 x 768 x 70HZ 1024 x 768 x 75HZ 1024 x 768 x 85HZ
		SXGA
		1280 x 1024 x 60HZ 1280 x 1024 x 75HZ 1280 x 1024 x 85HZ

WXGA	UXGA	Overlapped Modes
1366 x 768 x 50HZ 1366 x 768 x 60HZ 1366 x 768 x 75HZ 1366 x 768 x 85HZ 1280 x 720 x 60HZ 1280 x 720 x 75HZ 1280 x 720 x 85HZ 1280 x 768 x 60HZ 1280 x 768 x 75HZ 1280 x 768 x 85HZ	1600 x 1200 x 60HZ 1600 x 1200 x 75HZ	640 x 350 x 70HZ 720 x 350 x 70HZ 720 x 400 x 70HZ 640 x 400 x 70HZ
	WUXGA	
	1920 x 1080 x 60HZ 1920 x 1200 x 60HZ	

## 8. Power Selection Jumpers:

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