Monitor Board Data Sheet

-------Board Model: AT1100-V2.0A

------- Version 1.0

Content

1. Introduction

AT1100-V2.0A is a highly integrated digital display driver board with one DP and one HDMI input interface, capable of supporting up to 1920* 1080@60Hz Signal input, supporting most LCD panels with eDP and LVDS interfaces

2. Features

OSD Language	Multilingual
Panel Interface	1 * 30P eDP 1 * 40P eDP 1 * 40P LVDS 1 * 15P*2 LVDS
Panel Resolution	MAX 1920*1080@60Hz
Signal Input Interface	1 * DP IN 1 * HDMI IN
Audio Output	1 * 3.5mm Headphone Jack 2 * 2P Speaker OUT
Upgrade	1 * USB2.0
Power Supply	1 * DC 12V IN 1 * 4P 12V IN

3. Mechanical Specification

◆ Board Dimension

Dimension	Specification	Unit
Length	120.0	mm
Width	80.0	mm
Thickness	<10.0	mm

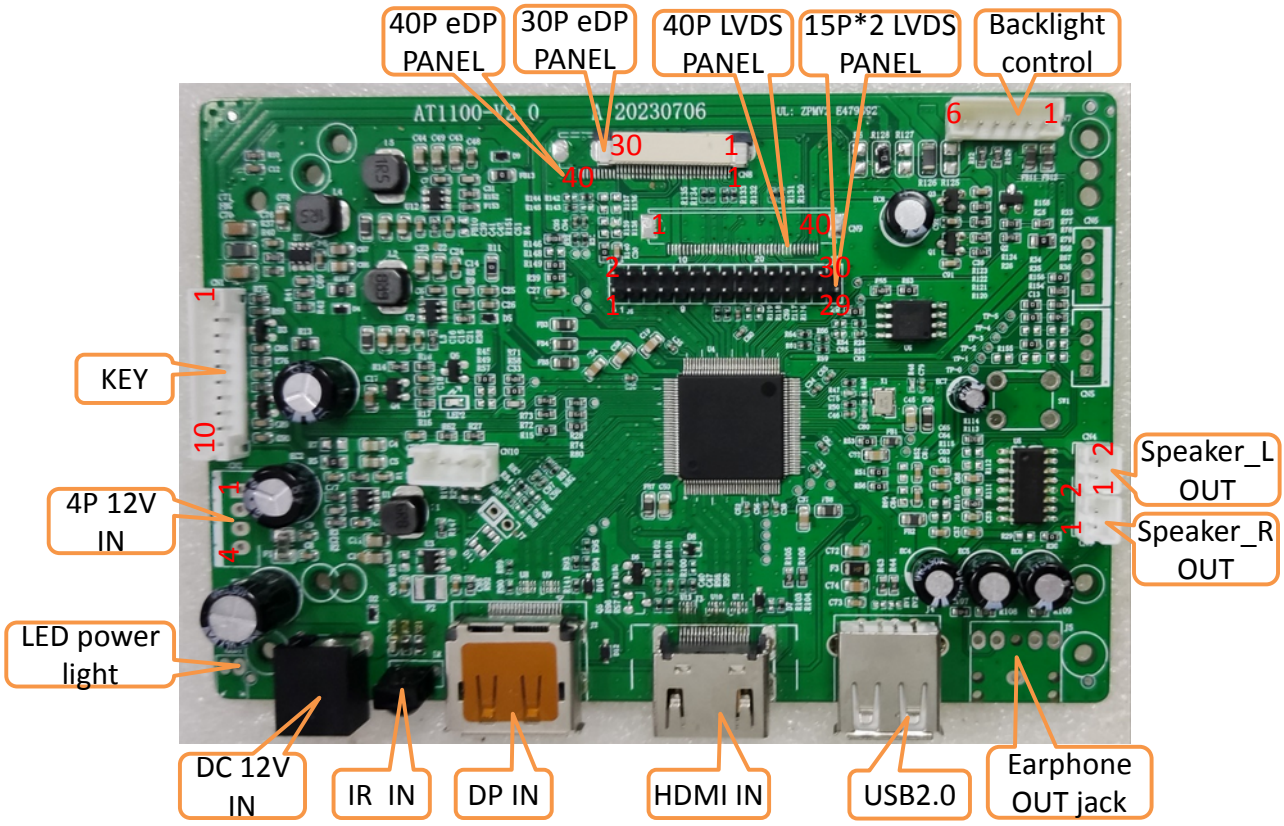
4. Operating Temperature

0˚C ~ 70˚C

5. Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit	Remark
Supply Voltage	Vcc	GND = 0		12		V	

6. Driver Board Interface Definition



7. Interface Definition

◆ 4P 12V IN

Power	(4P 2.54mm)
PIN	**Connection**
1	GND
2	GND
3	+12V
4	+12V

◆ KEY

KEY	(10P 2.0mm)
PIN	**Connection**
1	AUTO /EXIT
2	Menu /OK
3	VOL- /UP
4	VOL+ /Down
5	Power ON/OFF
6	GND
7	IR IN
8	LEDG
9	LEDR
10	3.3V

◆ 30P eDP PANEL

30P	(30P 0.5mm)	
PIN	**Name**	**Description**
1	NC	No Connection
2	H_GND	High Speed Ground
3	LANE1_N	eDP RX channel 1 negative
4	LANE1_P	eDP RX channel 1 positive
5	H_GND	High Speed Ground
6	LANE0_N	eDP RX channel 0 negative
7	LANE0_P	eDP RX channel 0 positive
8	H_GND	High Speed Ground
9	AUX_CH_P	eDP AUX CH positive
10	AUX_CH_N	eDP AUX CH negative
11	H_GND	High Speed Ground
12	VCCS	Power Supply +3.3V(typical)
13	VCCS	Power Supply +3.3V(typical)
14	LCD Self Test	Panel self test enable
15	GND	Ground
16	GND	Ground
17	HPD	Hot Plug Detect
18	GND	LED Ground
19	GND	LED Ground
20	GND	LED Ground
21	GND	LED Ground
22	BL_EN	LED enable pin(+3.3V Input)
23	BL_PWM	System PWM Signal Input
24	NC	No Connection
25	NC	No Connection
26	BL_POWER	LED Power Supply 5-12V
27	BL_POWER	LED Power Supply 5-12V
28	BL_POWER	LED Power Supply 5-12V
29	BL_POWER	LED Power Supply 5-12V
30	NC	No Connection

◆ 40P eDP PANEL

40P	(40P 0.5mm)	
PIN	**Name**	**Description**
1	NC	No Connection
2	H_GND	High Speed Ground
3	LANE1_N	eDP RX channel 1 negative
4	LANE1_P	eDP RX channel 1 positive
5	H_GND	High Speed Ground
6	LANE0_N	eDP RX channel 0 negative
7	LANE0_P	eDP RX channel 0 positive
8	H_GND	High Speed Ground
9	AUX_CH_P	eDP AUX CH positive
10	AUX_CH_N	eDP AUX CH negative
11	H_GND	High Speed Ground
12	VCCS	Power Supply +3.3V(typical)
13	VCCS	Power Supply +3.3V(typical)
14	LCD Self Test	Panel self test enable
15	GND	Ground
16	GND	Ground
17	HPD	Hot Plug Detect
18	GND	LED Ground
19	GND	LED Ground
20	GND	LED Ground
21	GND	LED Ground
22	BL_EN	LED enable pin(+3.3V Input)
23	BL_PWM	System PWM Signal Input
24	NC	No Connection
25	NC	No Connection
26	BL_POWER	LED Power Supply 5-12V
27	BL_POWER	LED Power Supply 5-12V
28	BL_POWER	LED Power Supply 5-12V
29	BL_POWER	LED Power Supply 5-12V
30	NC	No Connection
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		

◆ 40P LVDS PANEL

40P	(40P 0.5mm)	
PIN	**Name**	**Description**
1	NC	Not connection, this pin should be open.
2	VCC	3.3V power supply
3	VCC	3.3V power supply
4	VCC	3.3V power supply
5	NC	Not connection, this pin should be open.
6	NC	Not connection, this pin should be open.
7	NC	Not connection, this pin should be open.
8	RXO0-	Negative LVDS differential data input. Channel O0 (odd)
9	RXO0+	Positive LVDS differential data input. Channel O0 (odd)
10	GND	Ground
11	RXO1-	Negative LVDS differential data input. Channel O1 (odd)
12	RXO1+	Positive LVDS differential data input. Channel O1 (odd)
13	GND	Ground
14	RXO2-	Negative LVDS differential data input. Channel O2 (odd)
15	RXO2+	Positive LVDS differential data input. Channel O2 (odd)
16	GND	Ground
17	RXOC-	Negative LVDS differential clock input. (odd)
18	RXOC+	Positive LVDS differential clock input. (odd)
19	GND	Ground
20	RXO3- /RXE0-	Positive LVDS differential data input. Channel O3 /E0 (odd)
21	RXO3+ /RXE0+	Negative LVDS differential data input. Channel O3 /E0 (odd)
22	GND	Ground
23	RXE1-	Negative LVDS differential data input. Channel E1 (even)
24	RXE1+	Positive LVDS differential data input. Channel E1 (even)
25	GND	Ground
26	RXE2-	Negative LVDS differential data input. Channel E2 (even)
27	RXE2+	Positive LVDS differential data input. Channel E2 (even)
28	GND	Ground
29	RXEC-	Negative LVDS differential clock input. (even)
30	RXEC+	Positive LVDS differential clock input. (even)
31	GND	Ground
32	GND	Ground
33	GND	Ground
34	NC	Not connection, this pin should be open.
35	GND	Ground
36	BL_PWM	System PWM Signal Input
37	BL_EN	LED enable pin(+3.3V-5V Input)
38	BL_POWER	LED Power Supply 5-12V
39	BL_POWER	LED Power Supply 5-12V
40	BL_POWER	LED Power Supply 5-12V

◆ 15P*2 LVDS PANEL

30P	(15P*2 2.0mm)	
PIN	**Name**	**Description**
1	VCC	(+3.3V /+5.0V /+12V)power supply
2	VCC	(+3.3V /+5.0V /+12V)power supply
3	VCC	(+3.3V /+5.0V /+12V)power supply
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	RXO0-	Negative LVDS differential data input. Channel O0 (odd)
8	RXO0+	Positive LVDS differential data input. Channel O0 (odd)
9	RXO1-	Negative LVDS differential data input. Channel O1 (odd)
10	RXO1+	Positive LVDS differential data input. Channel O1 (odd)
11	RXO2-	Negative LVDS differential data input. Channel O2 (odd)
12	RXO2+	Positive LVDS differential data input. Channel O2 (odd)
13	GND	Ground
14	GND	Ground
15	RXOC-	Negative LVDS differential clock input. (odd)
16	RXOC+	Positive LVDS differential clock input. (odd)
17	RXO3-	Negative LVDS differential data input. Channel O3(odd)
18	RXO3+	Positive LVDS differential data input. Channel O3 (odd)
19	RXE0-	Negative LVDS differential data input. Channel E0 (even)
20	RXE0+	Positive LVDS differential data input. Channel E0 (even)
21	RXE1-	Negative LVDS differential data input. Channel E1 (even)
22	RXE1+	Positive LVDS differential data input. Channel E1 (even)
23	RXE2-	Negative LVDS differential data input. Channel E2 (even)
24	RXE2+	Positive LVDS differential data input. Channel E2 (even)
25	GND	Ground
26	GND	Ground
27	RXEC-	Negative LVDS differential clock input. (even)
28	RXEC+	Positive LVDS differential clock input. (even)
29	RXE3-	Negative LVDS differential data input. Channel E3 (even)
30	RXE3+	Positive LVDS differential data input. Channel E3 (even)

◆ Backlight control

Backlight	(6P 2.0mm)
PIN	**Connection**
1	GND
2	GND
3	BL_PWM
4	BL_EN
5	+12V
6	+12V

◆ Speaker OUT

Speaker L	(2P 2.0mm)
PIN	**Connection**
1	Speaker+
2	Speaker-

Speaker R	(2P 2.0mm)
PIN	**Connection**
1	Speaker-
2	Speaker+

8. Dimensional drawings