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# Product Specification

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**Product**      **Transparent Panel Module**  
**Model No.**   **ST-A3900T1001**

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## 1. GENERAL DESCRIPTION

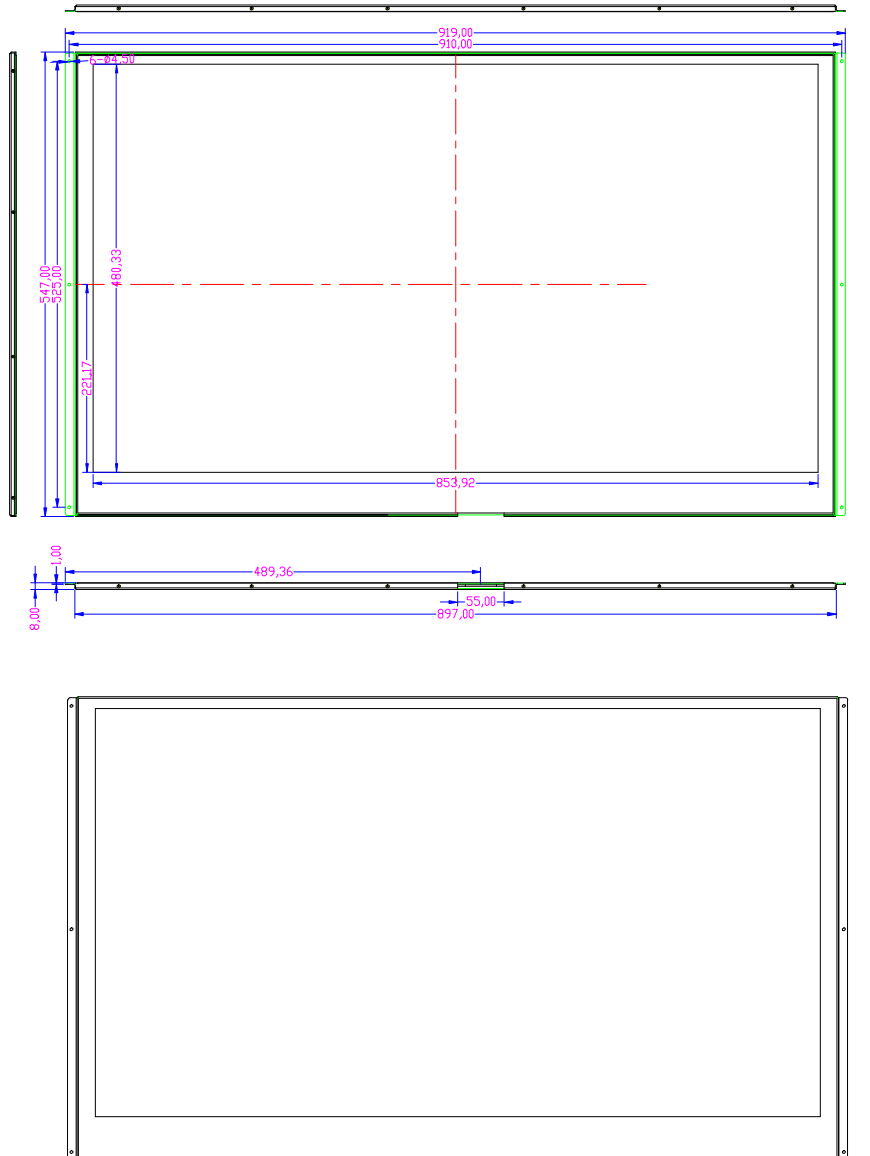
CHARACTERISTICS ITEMS	SPECIFICATIONS
Screen Diagonal [in]	38.5
Pixels [lines]	1920 × 1080
Active Area [mm]	853.92(H) × 480.33(V)
Sub-Pixel Pitch [mm]	0.17675(H) × 0.53025(V)
Pixel Arrangement	RGB vertical stripe
Weight [g]	TYP. 1280g
Physical Size [mm]	880.2(W) × 535.03(H) × 1.8(D) Typ.
Display Mode	Transmissive mode / Normally black
Contrast Ratio	3000:1 Typ. (Typical value measure at CMI's module)
Glass thickness (Array / CF) [mm]	0.5 / 0.5
Viewing Angle (CR>20)	+88/-88(H), +88/-88(V) Typ. (CR ≧ 20) (Typical value measure at CMI's module)
Color Chromaticity	* Please refer to "color chromaticity" on p.25
Cell Transparency [%]	5.8%
Polarizer Surface Treatment	Anti-Glare coating (Haze 3.5%) Hard Coating (3H)

### \* Link Diagram

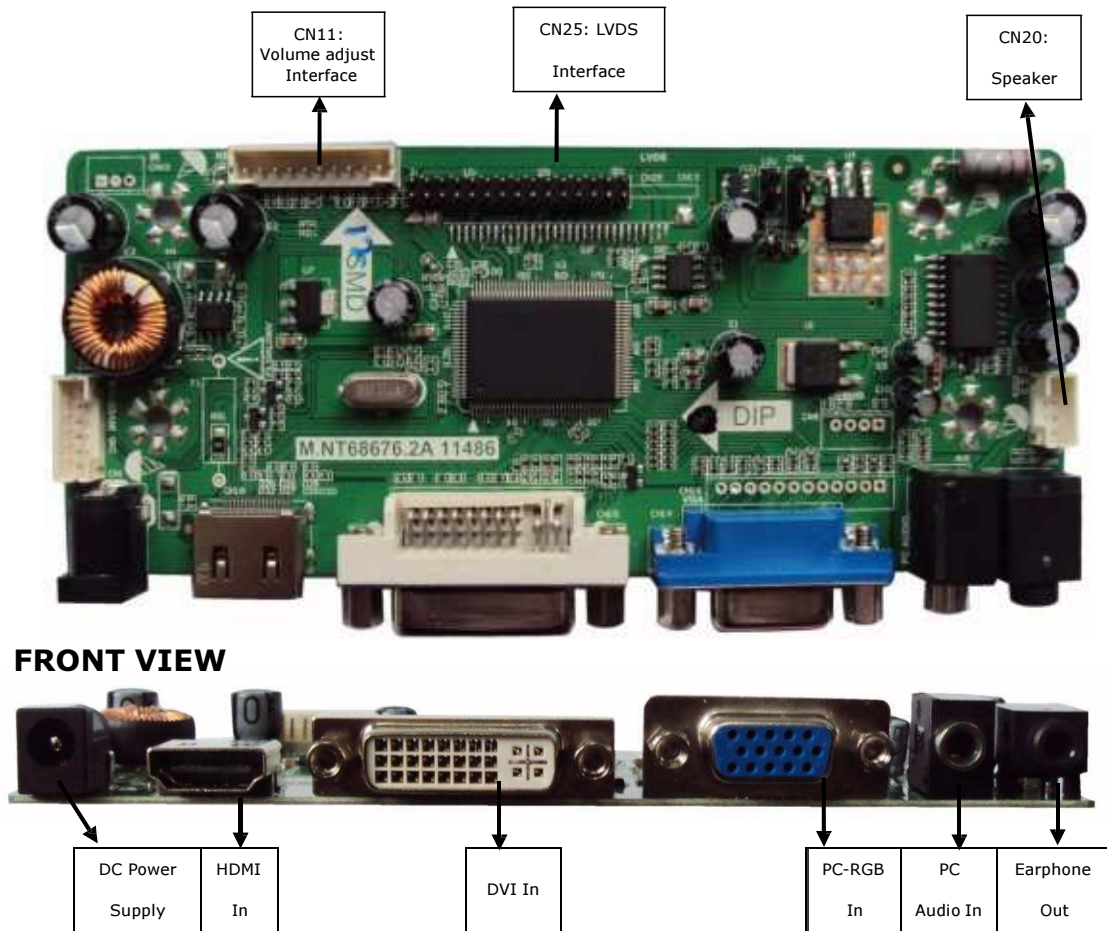
#### Transparent LCD panel frame



## 2. PANEL Mechanical Drawing



### 3. A/D board



### Feature

<b>OSD LANGUAGE</b>	Simplified Chinese, Traditional Chinese, English, French, German, Italian, Spanish, Portuguese, Japanese, Korean (optional)		
<b>PANEL</b>	Panel Type	LED/LCD	
	Interface	Single/Dual LVDS (8bit)	
	Max Resolution	2048×1152	
<b>VIDEO INPUT</b>	PC-RGB	Format	Up to 2048×1152@60Hz
	HDMI	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	
<b>AUDIO INPUT</b>	PC Audio	Earphone Input	0.2 ~ 2.0 V <sub>RMS</sub>
<b>AUDIO OUTPUT</b>	Frequency Response	100Hz~15KHz @±3dB (1KHz, 0dB reference signal)	
	Max Output power	2×1W(8Ω) THD+N<10%@1KHz (Power Supply: 12V, Audio Input: 0.5V <sub>RMS</sub> )	
<b>POWER</b>	Requirement	12V DC/12V(built)/12V,5V(built in)/12V,5V,5VSB(built in)	
	To Panel	3.3V/5V/12V	
	Management	Standby Power Consumption < 0.5W(Board Only)	
<b>KEY FUNCTION</b>	POWER,MENU,VOL+,VOL-,ADJUST/EXIT		

**CN11(10PIN/2.0): Volume adjust CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	K0	Key0
2	RED	Red Indicator
3	GRN	Green Indicator
4	GND	Ground
5	K1	Key1
6	K2	Key2
7	K3	Key3
8	K4	Key4
9	K5	Key5
10	K6	Key6

**CN25(2×15PIN/2.0): LVDS INTERFACE CONNECTOR**

NO.	SYMBOL	DESCRIPTION
1	VSEL	Power Supply for Panel
2	VSEL	
3	VSEL	
4	GND	Ground
5	GND	
6	GND	
7	TX00-	LVDS ODD 0- Signal
8	TX00+	LVDS ODD 0+ Signal
9	TX01-	LVDS ODD 1- Signal
10	TX01+	LVDS ODD 1+ Signal
11	TX02-	LVDS ODD 2- Signal
12	TX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	TXOC-	LVDS ODD Clock- Signal
16	TXOC+	LVDS ODD Clock+ Signal
17	TX03-	LVDS ODD 3- Signal
18	TX03+	LVDS ODD 3+ Signal
19	TXE0-	LVDS EVEN 0- Signal
20	TXE0+	LVDS EVEN 0+ Signal
21	TXE1-	LVDS EVEN 1- Signal
22	TXE1+	LVDS EVEN 1+ Signal
23	TXE2-	LVDS EVEN 2- Signal
24	TXE2+	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	
27	TXEC-	LVDS EVEN Clock- Signal
28	TXEC+	LVDS EVEN Clock+ Signal
29	TXE3-	LVDS EVEN 3- Signal
30	TXE3+	LVDS EVEN 3+ Signal

## CN20 (4PIN/2.0): SPEAKER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	LO	Audio Left Channel Output
2	GND	Ground
3	GND	
4	RO	Audio Right Channel Output

## CONFIGURATION & GENERAL PRECAUTIONS

- Relative humidity:  $\leq 80\%$ .
- Storage temperature:  $-10\sim 60^{\circ}\text{C}$ .
- Operation temperature:  $0\sim 40^{\circ}\text{C}$ .
- Protect the board from static electricity in case of damage to the IC.
- Keep the board away from conductor when it is working.
- Do not push or pull the connectors when the board is working.
- Do not press, distort or disassemble the board.
- Clean the board with soft dry cloth when it's dirty.
- Do not wire the board to the power supply before panel is correctly connected.

### A/D board Mechanical Drawing

**PCB DIMENSIONS** 139mm(L)\*58mm(W)\*17mm(H).

Ver.	V1.0
NO.	Description
1	DC IN
2	HDMI IN
3	DVI IN
4	VGA IN
5	PC AUDIO IN
6	EARPHONE OUT

