Advance Hightech Solutions, Inc.
Material Pioneer, Technology Navigator

17.3 inch LED
SPECIFICATION
MODEL NAME: LMWAM173CX11

Date: 2023/10/26

Customer Signature		
Customer		
Approved Date	**Approved By**	**Reviewed By**

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CONTENTS

RECORD OF REVISION

Version	Date	Page	Description
0.1	2023/10/26	All	Preliminary Spec, First release

1. General Description

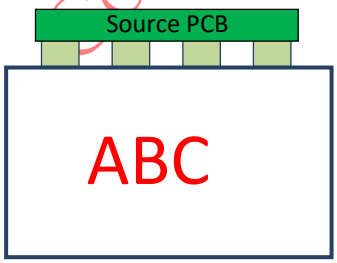
This specification applies to the 17.3 inch transparent Micro LED display. This panel unit has flip chip type LED with 1280 x 720 pixels and DP interface; which can display up to 1.07 billion colors.

*** General Information**

Item	Specification	Unit	Note
Panel size	17.3”	Inch	
Panel dimension	400(H) x 255(V)	mm	with CG
Pixel Pitch	0.3	mm	
LED type	RGB / Flip Chip		
Resolution	1280 x 720	Pixel	
Aspect Ratio	16 : 9		
Active Area	384 x 216	mm	
Power	51.6	W	full white
Luminance (typ)	1000	nit	full white
Transparency	55%		
Contrast Ratio (typ.)	1,000,000 : 1		
Color Gamut (typ)	Rec.2020 > 86%、DCI-P3 > 98%		
Color Coordinate (W)	0.299, 0.331		
Haze	2.8%		
Viewing angle (FWHM)	>170°		
Interface	DP		
Weight	480	g	with CG
Cover Glass Thinness	Front 1.1 / Rear = 1.1	mm	

Note 1：FWHM is abbreviation of “Full Width at half maximum”.

Note 2：LED display as below illustrated when signal input with “ABC”.



2. Absolute Maximum Ratings

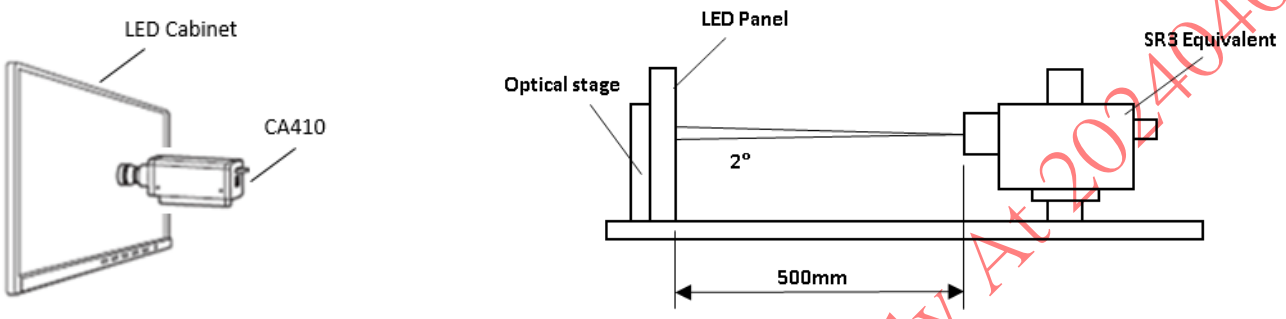
The followings are maximum values which, if exceeded, may cause faulty operation or damage to the unit or the unrecoverable damage on the device.

Item	Symbol	Min	Max	Unit
Operating Temperature	TOP	-10	+40	[°C]
Operating Humidity	HOP	10	90	[%RH]
Storage Temperature	TST	-10	+60	[°C]
Storage Humidity	HST	10	90	[%RH]
Panel Surface Temperature	PST		60	[°C]

3. Optical Specification

Optical characteristics are determined after the unit has been 'ON' (at 500~550 nit) and stable for approximately 30 minutes in a dark environment at 25°C. The values specified are measured on the center of active area at a viewing angle of φ and θ equal to 0°. These measurement items should be done within 3 min.

Fig.1 presents additional information concerning the measurement equipment and method.



Parameter		Symbol	Condition	Values			Unit	Notes
				Min.	Typ.	Max		
Brightness uniformity Variation		δ(white)	--	--	--	91.5%		2
Color Chromaticity			With CA410					
	Red	R_X		Typ.-0.03	0.694	Typ.+0.03		
		R_Y			0.306			
	Green	G_X			0.187			
		G_Y			0.743			
	Blue	B_X			0.140			
		B_Y			0.045			
	White	W_X		Typ.-0.05	0.299	Typ.+0.05		
		W_Y			0.331			
Viewing Angle			With SR3					3
	x axis, right(φ=0°)	θ_r		--	85	--	degree	
	x axis, left(φ=180°)	θ_l		--	85	--	degree	
	y axis, up(φ=90°)	θ_u		--	85	--	degree	
	y axis, down (φ=270°)	θ_d		--	85	--	degree	

1. Contrast Ratio (CR) is defined mathematically as:

$$\text{Contrast Ratio} = \frac{\text{Surface Luminance at center location in gray L255 Level}}{\text{Surface Luminance at center location in gray L0 Level}}$$

2. Brightness uniformity Variation measure with 9point in cabinet @ L255 (Gray Level) and δ(white) is defined as：
δWHITE(9P)= Minimum(Lon1, Lon2,…Lon9)/ Maximum(Lon1, Lon2,…,Lon9)

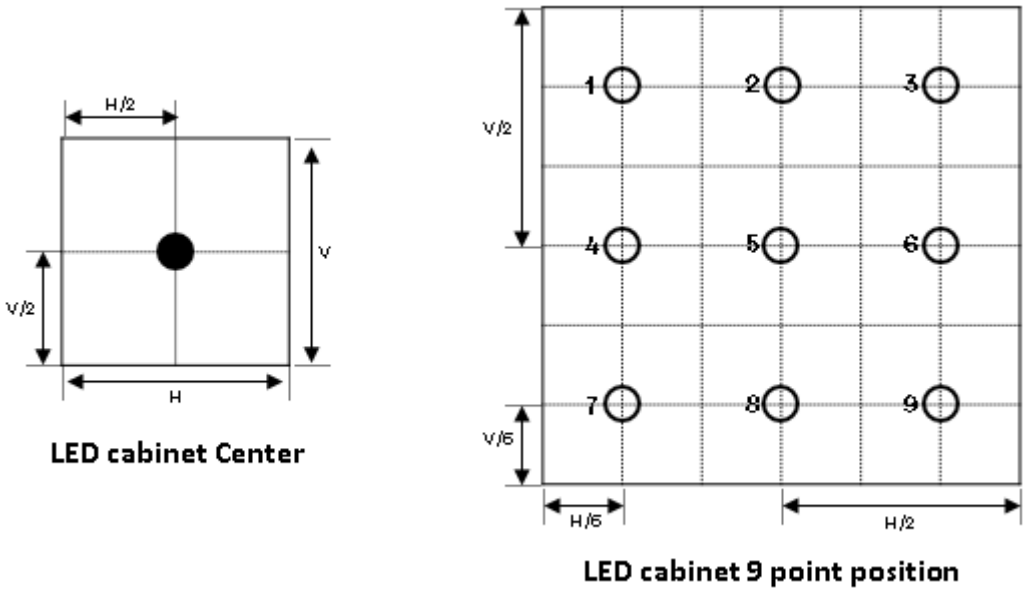


FIG.2 Brightness measure position

3. Viewing angle is the angle which the brightness decreasing till 50% brightness of front directly view.
The angles are determined for the horizontal or x axis and the vertical or y axis with respect to the z axis which is normal to the LED Cabinet surface. For more information see FIG.3.

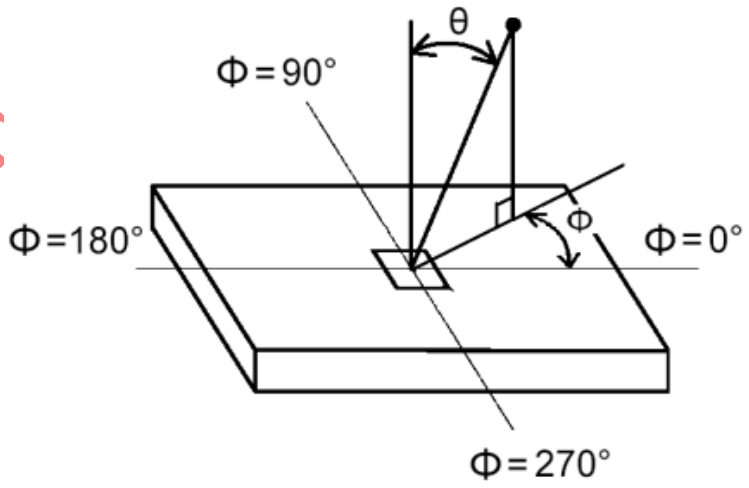


FIG.3 Viewing Angle

4. Interface Specification

4.1 Input power

The LED panel requires power input which is employed to power and drive the LED array and system.

Item		Symbol	Min.	Typ.	Max	Unit	Note
Power Supply Input Voltage		V_{DD}	11.7	12	12.3	V	
Power Supply Input current	White pattern	I_{DD}		5		A	
Power consumption	White pattern	P_C			51.6	W	

Note1. Test Condition: (1) Temperature = 25 ℃ (2) Gray level=255
White pattern

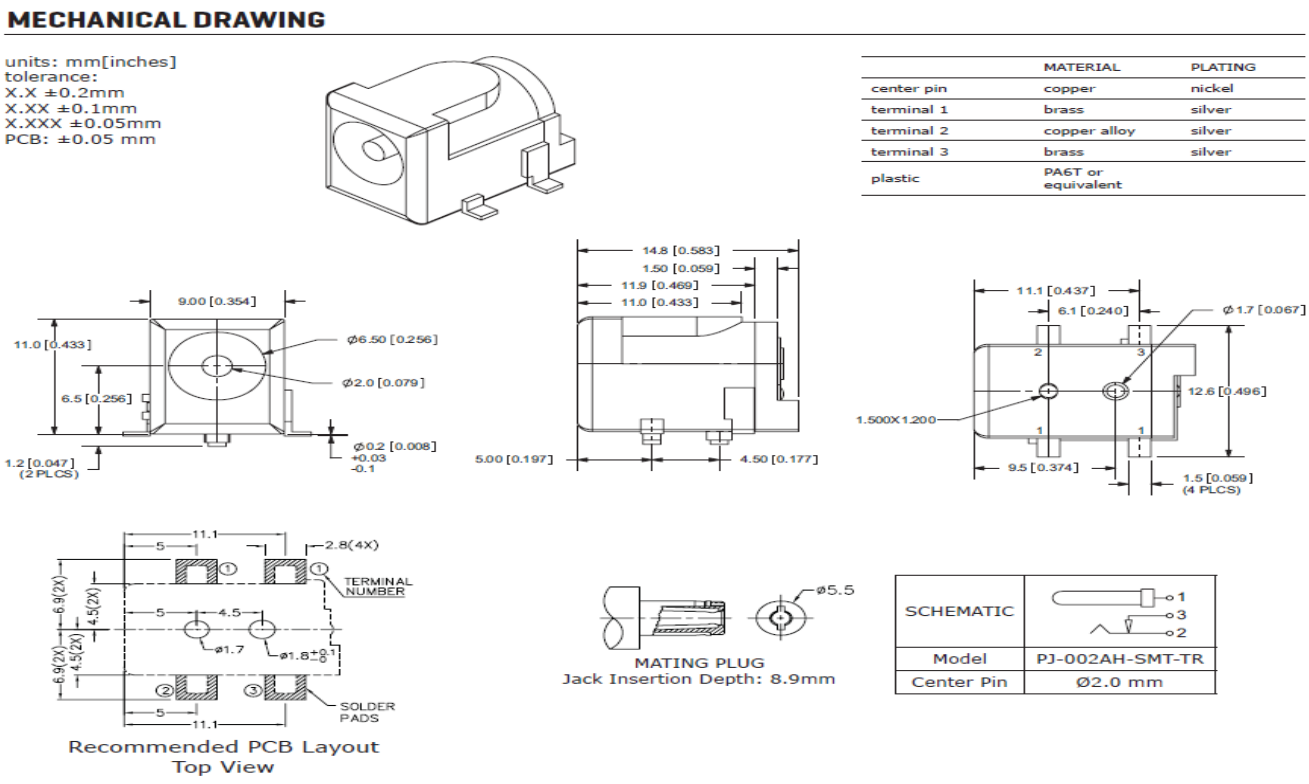
4.1.1 DC Power Jack Specifications

The PCBA DC Powr connector specification：

Item	Min.	Typ.	Max	Unit
Rated Input Voltage	-	24	-	VDC
Rated Input Current	-	-	5	A
Operating Temperature	-25		85	°C

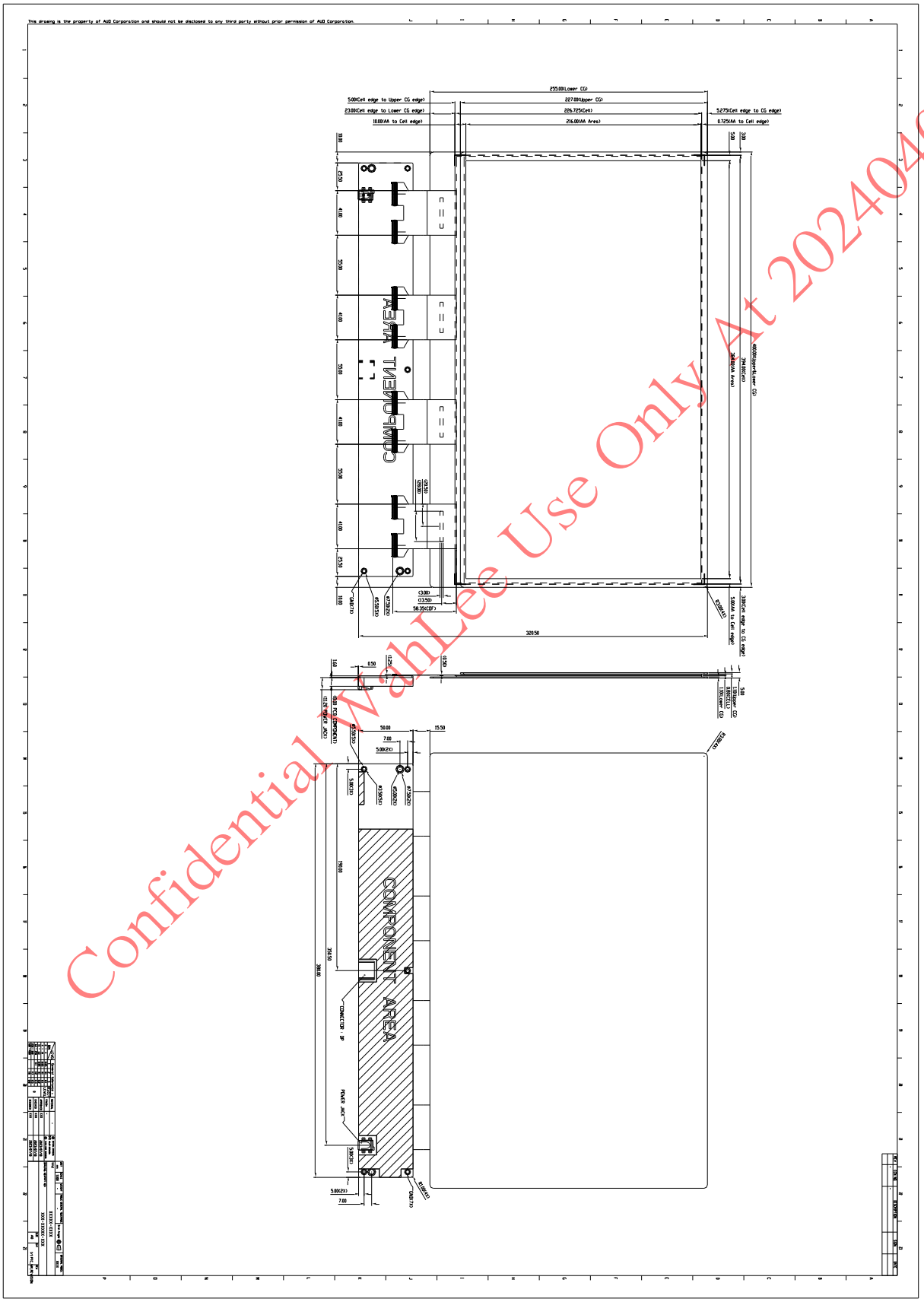
4.1.2 DC Power Jack Mechanical Drawing

Connector：CUI DEVICES PJ-002AH-SMT-TR



5. Mechanical Characteristics

5.1 Panel mechanical drawing



■ Inspection Specifications

The buyer (customer) shall inspect the modules within twenty calendar days since the delivery date (the "inspection period") at its own cost. The results of the inspection (acceptance or rejection) shall be recorded in writing, and a copy of this writing will be promptly sent to the seller.

The buyer may, under commercially reasonable reject procedures, reject an entire lot in the delivery involved if, within the inspection period, such samples of modules within such lot show an unacceptable number of defects in accordance with this incoming inspection standards, provided however that the buyer must notify the seller in writing of any such rejection promptly, and not later than within three business days of the end of the inspection period.

Should the buyer fail to notify the seller within the inspection period, the buyer's right to reject the modules shall be lapsed and the modules shall be deemed to have been accepted by the buyer.

■ Warranty

AHS warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for one year from the date of purchase.

AHS will be limited to replace or repair any of its module which is found and confirmed defective electrically or visually when inspected in accordance with AHS general module inspection standard.

This warranty does not apply to any products which have been on customer's production line, repaired or altered by persons other than repair personnel authorized AHS, or which have been subject to misuse, abuse, accident or improper installation. AHS assumes no liability under the terms of this warranty as a consequence of such events.

If an AHS product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. In returning the modules, they must be properly packaged with original package; there should be detailed description of the failures or defect.

■ RMA

Products purchased through AHS and under warranty may be returned for replacement. Contact sales@advancehightech.com for RMA number and procedures.

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