

Datasheet

AUO

PH55FGN02.0

MO-01-124

 APOLLO DISPLAY
TECHNOLOGIES



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UNITED KINGDOM



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Model Name: PH55FGN02.0

Issue Date: 2023/09/05

(*) Preliminary Specifications

() Final Specifications

Customer Signature	Date	AUO	Date
Approved By _____		Approval By PM Director CT Wu _____	
Note		Reviewed By RD Director Gordon Chen _____	
		Reviewed By Project Leader Salas Kuo _____	
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Record of Revision

Version	Date	Page	Description
1.0	2023/06/13		First Version Specifications
2.0	2023/08/30		1.Label 2.Packing 3.Product Feature & Spec 4.Connectivity update
2.1	2023/09/05		I/O update

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I. General Information

This specification applies to the 55 inch TFT LCD Display PH55FGN02.0, The LCD display adopts TFT active matrix liquid crystal panel with 1080 × 1920 pixels, and diagonal size is 55.0 inch.

PH55FGN02.0 has designed with direct type of LED backlight and 8 bits color depth scaling, it performs 3500nits brightness and 16.7 million colors. The LCD display includes PC video connectors for display application and AV connectors for multiple video format input.

Product Feature:

- FHD 1080 × 1920 resolution
- AR_IR coating surface treatment
- Auto Temperature Adjustment
- Auto Brightness Adjustment
- Portrait /Landscape mounting
- Reliable 24hrs/7days Operation
- IP 56
- IK 10
- Brightness 3500nits
- Thickness =9.9cm

2. Specification Sheet

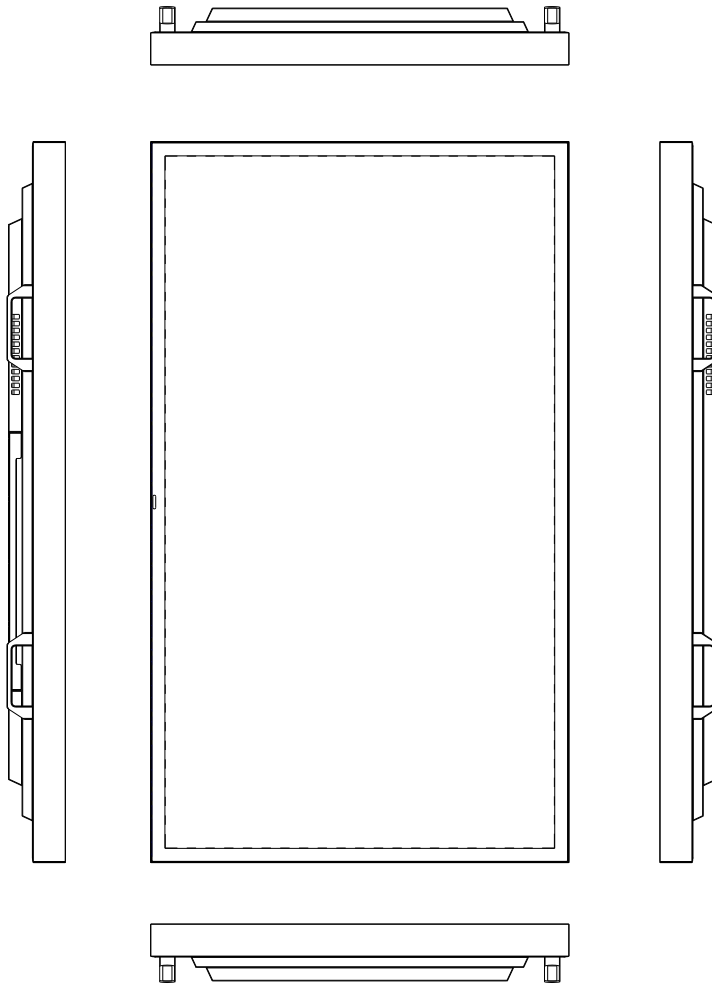
Item	Specification	Unit	Note
Display	LCD Size	55.0	inch
	Aspect Ratio	16:9	
	Backlight Type	Direct Type LED	
	Active Area (H x V)	1209.6 (H) x 680.4 (V)	mm
	Resolution	1920 x 1080	pixel
	Brightness (nit)	3500 (typ.)	cd/m ²
	Contrast Ratio	4000:1 (typ.)	
	Color Gamut	NTSC 72% (typ.)	
	Display Color	8 bit	
	Frame Rate	60	Hz
Cover Glass	Surface Hardness(500g)	>8H	
	Cover Glass Thickness	5.0	mm
	Surface Treatment	AR+IR Cut	
IP Level	IP56		
IK Level	IK10		

Connectivity	Input Interface	Video	HDMI 2.0 DP 1.4		
		Others	RS232 HDBT IR input		
Power	Power Supply		AC 100 - 240V, 50-60Hz		
	Power Consumption (typ.)		350 (typ.)	W	
	Standby Power		<0.5	W	(2)
Mechanical	Net Dimension (L x W x D)		1260.6 (L) x 731.4 (W) x 99.5 (H)	mm	
	Net Weight		50.0(typ.)	Kg	
	Mounting Holes		16*M6(4 for each side)		
Environment	Storage Temperature		-30 ~ 60	°C	
	Operation Temperature		-30 ~ 50	°C	
	Operating Humidity		10 ~ 80	%RH	
	Operating Hours		24/7		
	Display Orientation		Portrait / Landscape		(3)

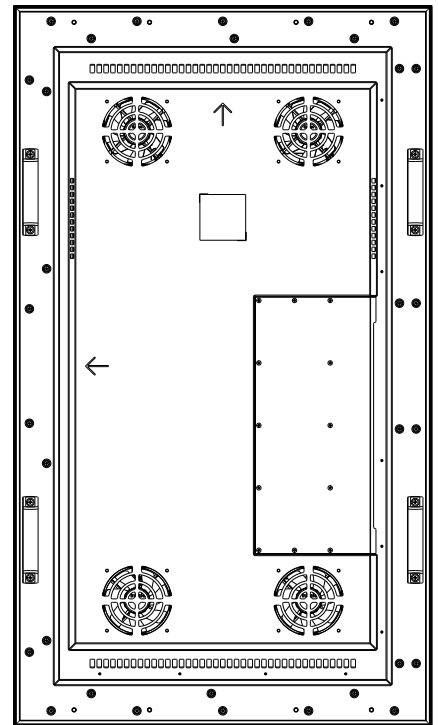
Note 1 : Portrait Mode is defined by below figures.

-Portrait-

Front view



Back view

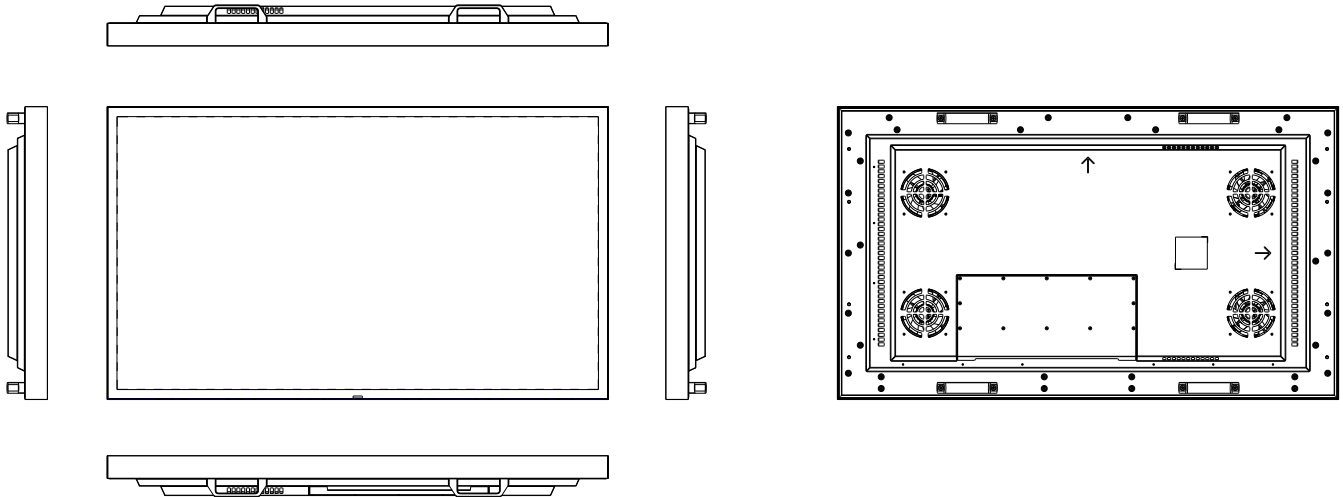


Note 2 : Landscape Mode is defined by below figures.

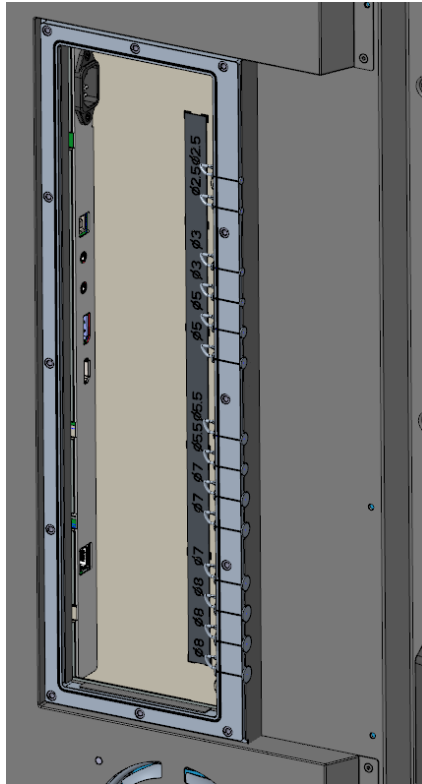
-Landscape-

Front view

Back view

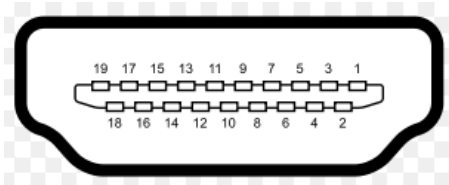


3. Connectivity Definition



Connectivity Definition

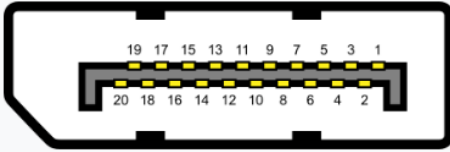
3.1. HDMI



■ HDMI input: Type A

Pin	Signal Assignment	Pin	Signal Assignment
1	TMDS Data2+	2	TMDS Data2 Shield
3	TMDS Data2-	4	TMDS Data1+
5	TMDS Data1 Shield	6	TMDS Data1-
7	TMDS Data0+	8	TMDS Data0 Shield
9	TMDS Data0-	10	TMDS Clock+
11	TMDS Clock Shield	12	TMDS Clock-
13	CEC	14	Reserved (N.C. on device)
15	SCL	16	SDA
17	DDC/CEC Ground	18	+5V Power
19	Hot Plug Detect		

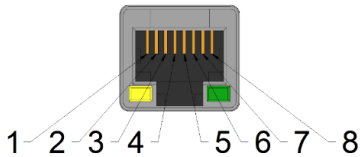
3.2. DP



■ DP input: Standard type

Pin 1:	ML_Lane 3-	Pin 2:	GND
Pin 3:	ML_Lane 3+	Pin 4:	ML_Lane 2-
Pin 5:	GND	Pin 6:	ML_Lane 2+
Pin 7:	ML_Lane 1-	Pin 8:	GND
Pin 9:	ML_Lane 1+	Pin 10:	ML_Lane 0-
Pin 11:	GND	Pin 12:	ML_Lane 0-
Pin 13:	GND	Pin 14:	GND
Pin 15:	AUX CH+	Pin 16:	GND
Pin 17:	AUX CH-	Pin 18:	Hot Plug
Pin 19:	Return	Pin 20:	NC

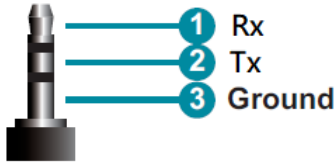
3.3. HDBase-T



■ HDBase-T input: RJ45

Pin 1:	TX_D1+
Pin 2:	TX_D1-
Pin 3:	RX_D2+
Pin 4:	BI_D3+
Pin 5:	BI_D3-
Pin 6:	RX_D2-
Pin 7:	BI_D4+
Pin 8:	BI_D4-

3.4. RS-232



■ RS-232 input: 3.5ØPhonejack

Pin 1:	Rx
Pin 2:	Tx
Pin 3:	Ground

An RS-232C cable connected to the serial ports on the PC and monitor to control the monitor.

3.5. USB

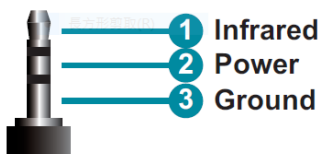


■ USB input: USB type B

Pin 1:	VCC
Pin 2:	D-
Pin 3:	D+
Pin 4:	GND

For Firmware update only.

3.6. IR In



■ RS-232 input: 3.5ØPhonejack

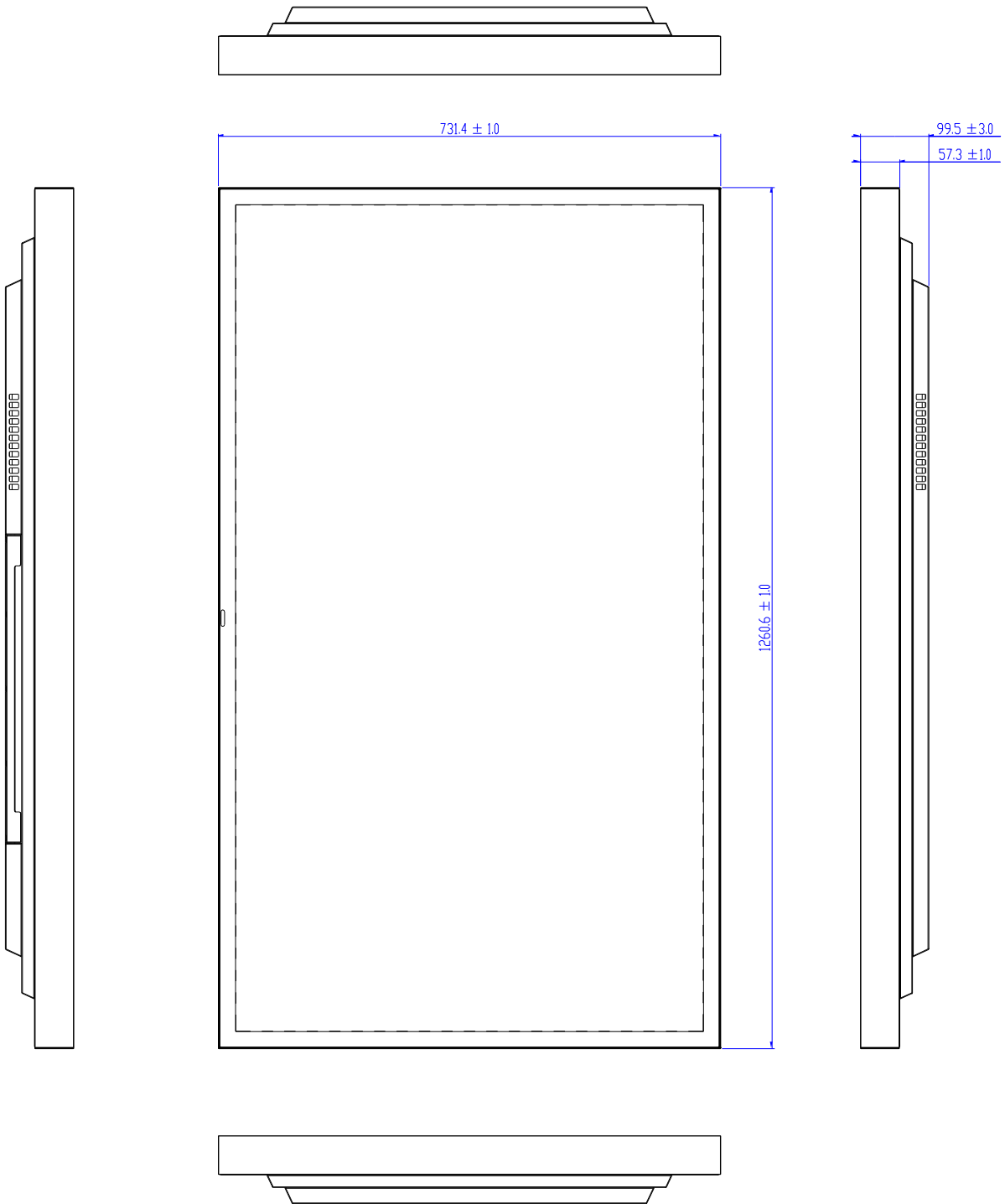
Pin 1:	Infrared
Pin 2:	Power
Pin 3:	Ground

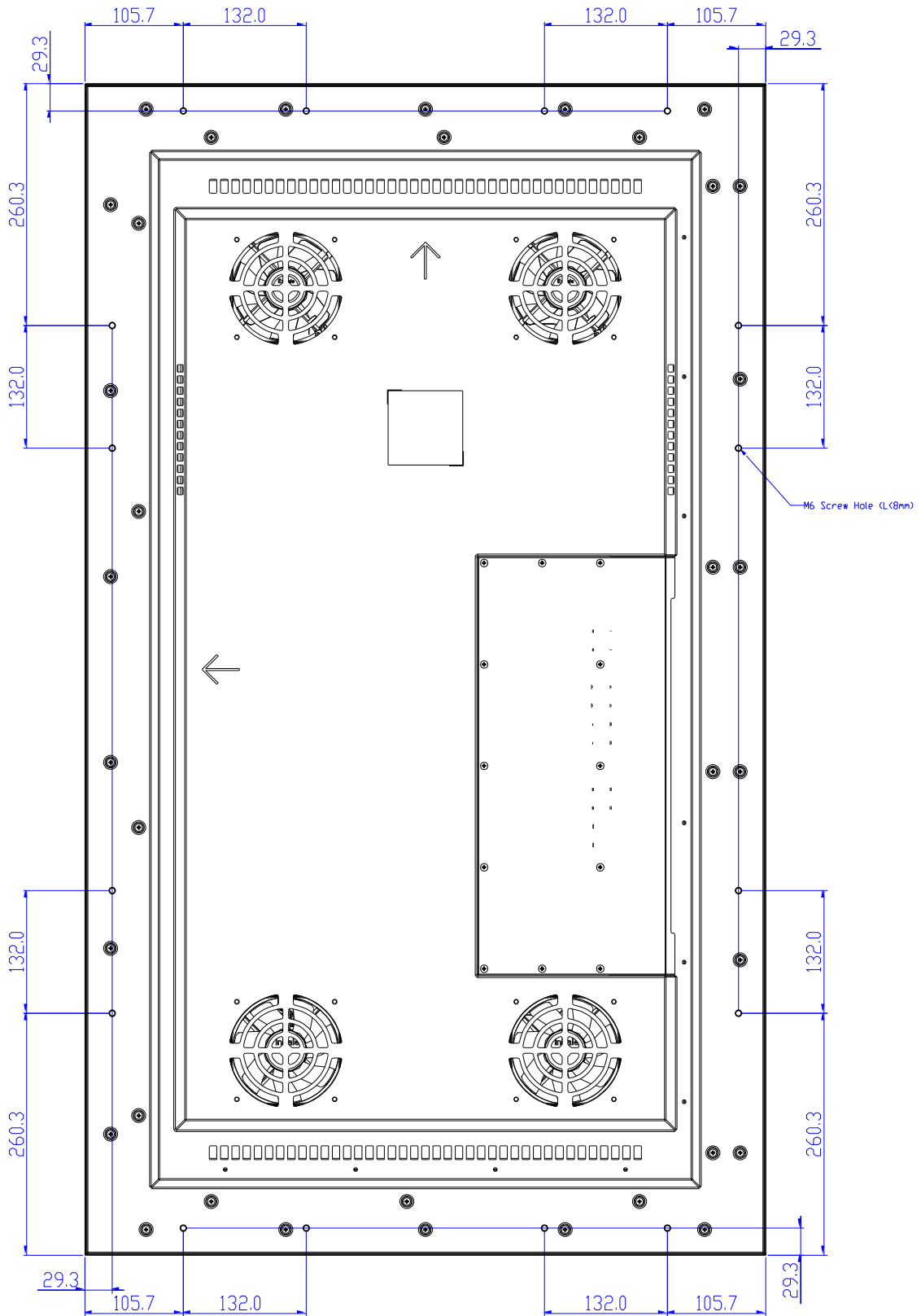
For HDBT IR input.

4. Reliability Test

Reliability :		Internal Test Spec
1	High Temperature Operation (HTO)	Temperature: 50 °C , 24 hours
2	Low Temperature Operation (LTO)	Temperature: -30 °C , 24 hours
3	Temperature Humidity Bias (THB)	Temperature: 50 °C , 80% , 168 hours
4	Storage	<ol style="list-style-type: none"> 1. Temperature: 25°C/-20 °C/ 50 °C/25°C , Humidity : 5%/50%/95% 2. Test duration:73 Hours 3. With Package 4. Test time :1 cycle
5	Packing drop	<ol style="list-style-type: none"> 1. Test Environment: 25 °C 2. Drop point : Height 200mm · Bottom flat twice °
6	Packing vibration	<ol style="list-style-type: none"> 1. Check random vibration (Package). 2. Acceleration (G) : 0.15-1.52g 3. Frequency Bandwidth(Hz) : 10-30-10 (0.75mm) 5 cycles / 30-55-30 (0.25mm) 5 cycles 4. Direction & Term : Up & Down 30 minutes / Forward & Back 30 minutes / Right & Left 30 minutes.
7	ESD	Class B, Air ±8kV / Contact ±4kV
8	EMI	Class A

5. Mechanical Drawing





6. Packing Specification

6.1. Packing Information

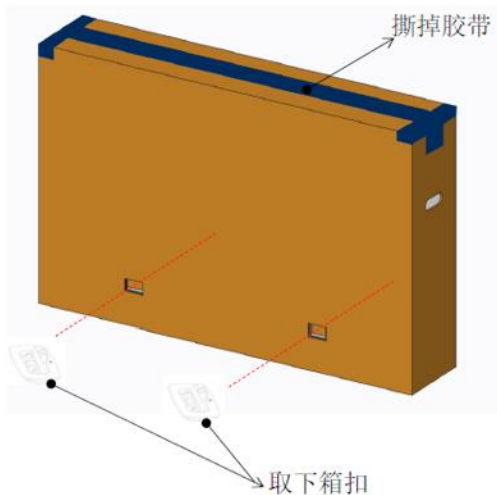
Item	Specification				Packing Remark
	Type	Qty.	Dimension (L x W x H)	Gross Weight	
Box with display	NA	1 pcs/Box	1465(L) mm *282(W) mm *936(H) mm	60 kg	
Pallet with boxes	1 pallet (by Air)	4 pcs/Pallet	1465(L) mm *1150(W) mm *1074(H) mm	250 kg	1 layer stacks
	1 pallet (by Sea)	4 pcs/Pallet	1465(L) mm *1150(W) mm *2148(H) mm	500 kg	2 layer stacks

6.2. Loading of Container

	Pallet Quantity	Set Quantity	Weight
40' Container	32	128	8000kg
20' Container	14	56	3500kg

6.3. Unpacking Flow

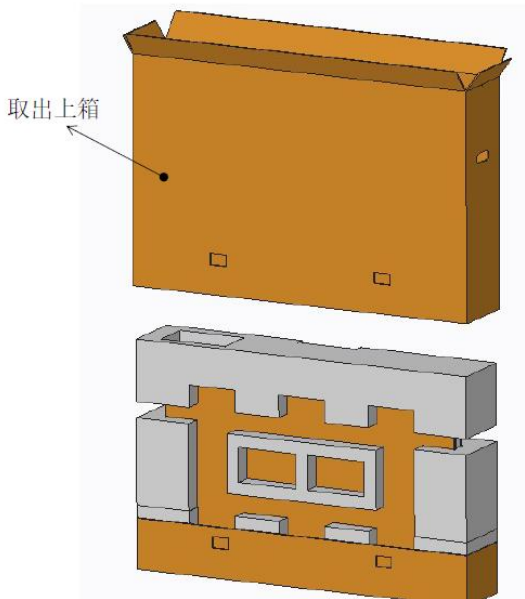
Step 1: Tear off the tape and Remove the Grip Plastic



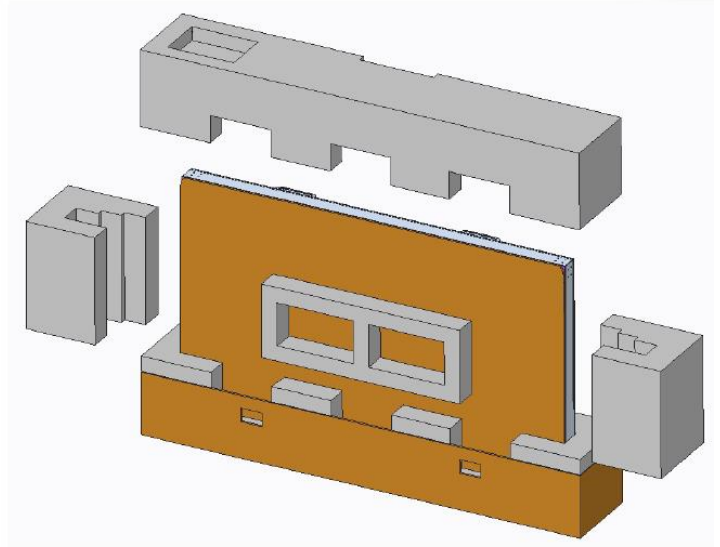
Step 2: Take away the power cord and remote control



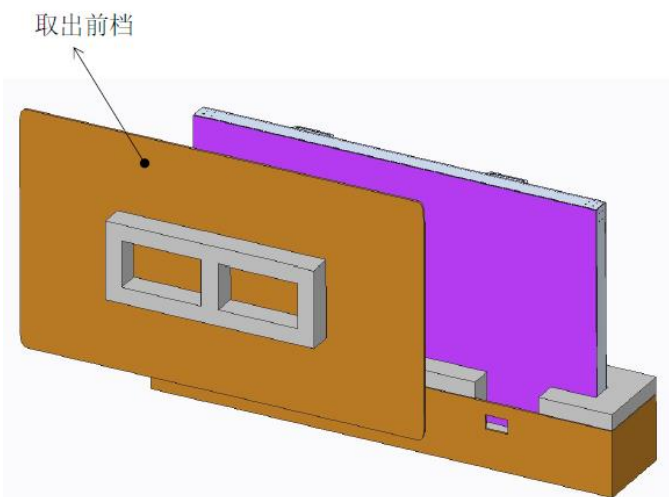
Step 3: Remove the top Carton



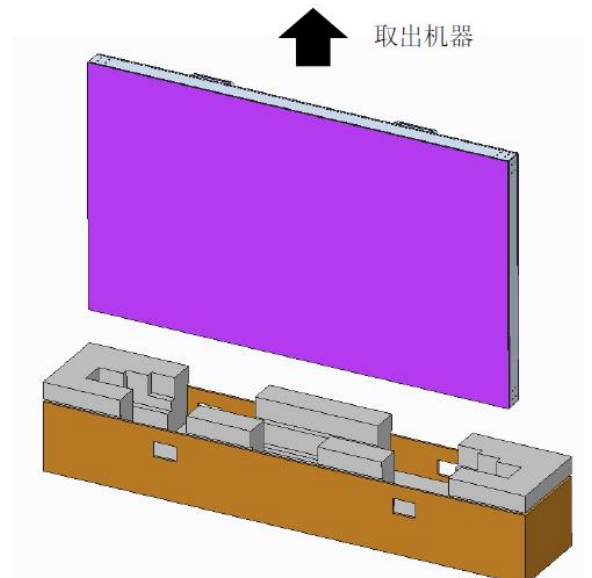
Step 4: Remove the top&left&right EPE



Step 5: Remove the Front Cardboard



Step 6: Remove the Set



7. Label Drawing

7.1. Shipping label :



7.2. Carton label :



8. Precautions

8.1. Handling Precautions

- (1) Please do not stack the product without buffers
- (2) Please pick it up from the package in a clean area. The dust or oil may cause electrical short or damage the polarizer.
- (3) Please wipe the screen surface with a clean, soft, fluff-less cloth.
- (4) Please do not press or scratch the product surface with an object which is harder than a HB pencil.
- (5) Wipe off water droplets or oil immediately. Staining and discoloration may occur if they left on panel for a long time.
- (6) If the liquid crystal material leaks from the panel, it should be kept away from the eyes or mouth. In case of contacting with hands, legs or clothes, it should be washed away thoroughly with soap.
- (7) Please do not disassemble the product by yourself.
- (8) Please do not touch the I/O pin or wire without any protection.
- (9) Please handle it at right and left side, it will damage the product if you pick it up with handing it at top side.

8.2. Storage Precautions

- (1) High temperature or humidity may reduce the performance of the product. Please store the product within the specified storage conditions
- (2) Mist may damage the product.

8.3. Operation Precautions

- (1) Please do not pull the wire, connector while the product is operating.
- (2) Plug in DC connector first (if needed,) and then plug one end of the AC inlet to the adapter or the display, and plug the other end into an AC outlet.

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