


1.0 Reference and Address			
Report Number	2309A0327SHA-001	Original Issued: 7-Oct-2023	Revised: 29-Nov-2023
Standard(s)	Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [UL 62368-1:2019 Ed.3+R:22Oct2021]  Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [CSA C22.2#62368-1:2019 Ed.3+U1]		
Applicant	Shenzhen Fabulux Technology Co., Ltd	Manufacturer	Shenzhen Fabulux Technology Co., Ltd
Address	Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen Guangdong 515110	Address	Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen Guangdong 515110
Country	China	Country	China
Contact	Weiji Wu	Contact	Weiji Wu
Phone	13430753894	Phone	13430753894
FAX	-	FAX	-
Email	<a href="mailto:fab004@fabuluxled.com">fab004@fabuluxled.com</a>	Email	<a href="mailto:fab004@fabuluxled.com">fab004@fabuluxled.com</a>

2.0 Product Description	
Product	LED Display
Brand name	 (FABULUX LED)
Description	<p>The EUT is LED Display which is designed for indoor use only. Maximum recommended ambient (Tmra): 40°C. Class I product. The max. working altitude is 5000m. The dimensions of the LED Display are: approx. 1000mm x 500 mm x 33 mm. The LEDs of this product is tested and classified as Exempt Group according to IEC 62471.</p>
Models	T1.9, T2.5, T2.6, T3.1, T3.9, T4.8, T5.9
Model Similarity	<p>All models are identical to each other except for model number, physical dimension, quantity of LED and lattice distance of LED. Refer to Section 7.0, Illustration No. 4 for details.</p>
Ratings	<p>Input: 100-240V~, 50Hz/60Hz, 10A (Max) Output: 100-240V~, 50Hz/60Hz, 9A (Max)</p>
Other Ratings	NA
Conditions of Acceptability	<p>The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product.</p> <ol style="list-style-type: none"> <li>1. Suitability of the enclosure should be evaluated when installed in the end product.</li> <li>2. The installation method is examined in the final product.</li> <li>3. Wall or ceiling mount loading test or stability of equipment shall be evaluated when installed in the end product.</li> <li>4. Resistance of the protective bonding system (Ground continuity test) should be checked.</li> <li>5. Stored discharge on capacitors should be checked when installed in the end system.</li> <li>6. Power connection type shall be evaluated when installed in the end system.</li> </ol>

### 3.0 Product Photographs

**Photo 1** - External view of EUT

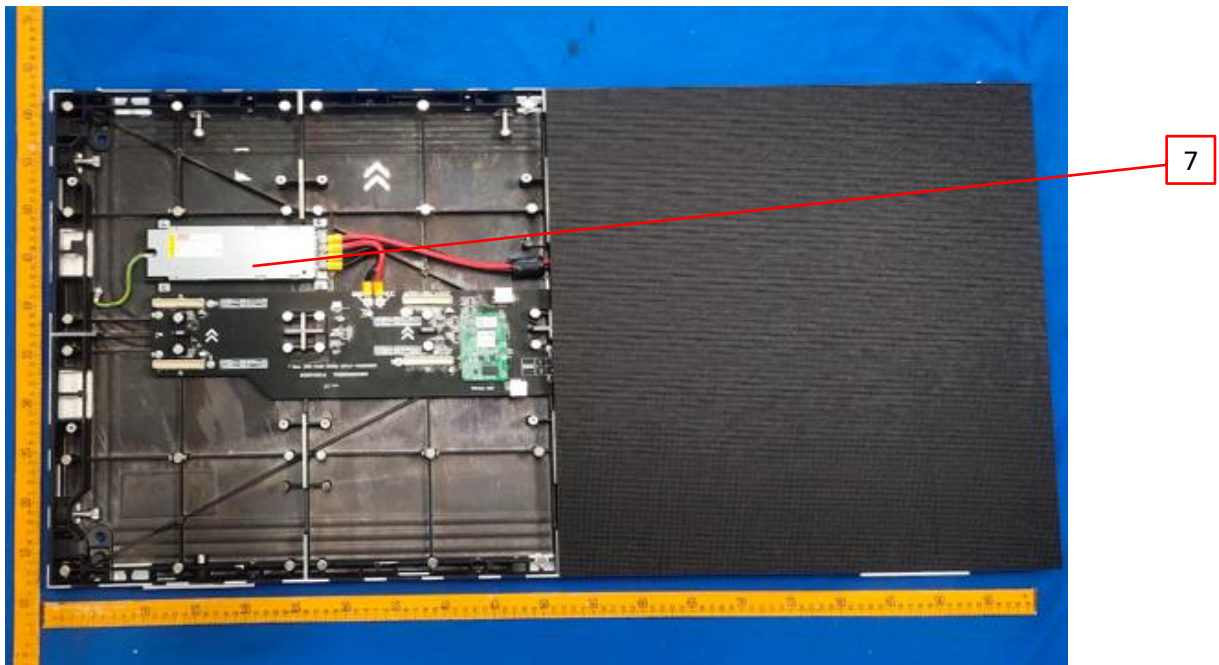


**Photo 2** - External view of EUT

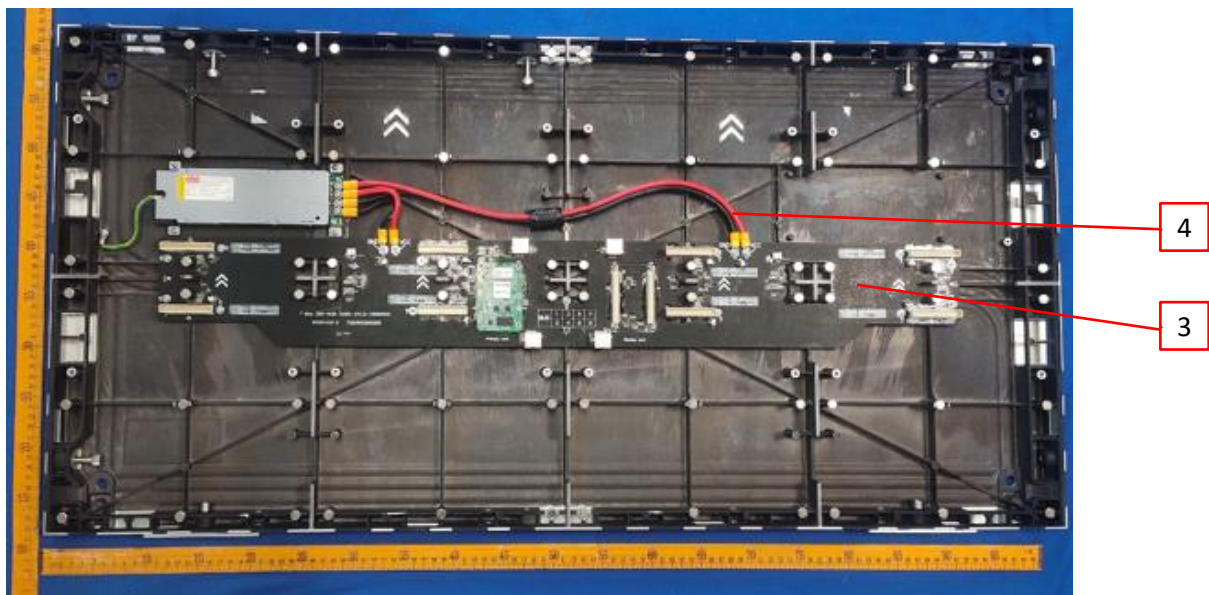


### 3.0 Product Photographs

**Photo 3 - Internal view of EUT**



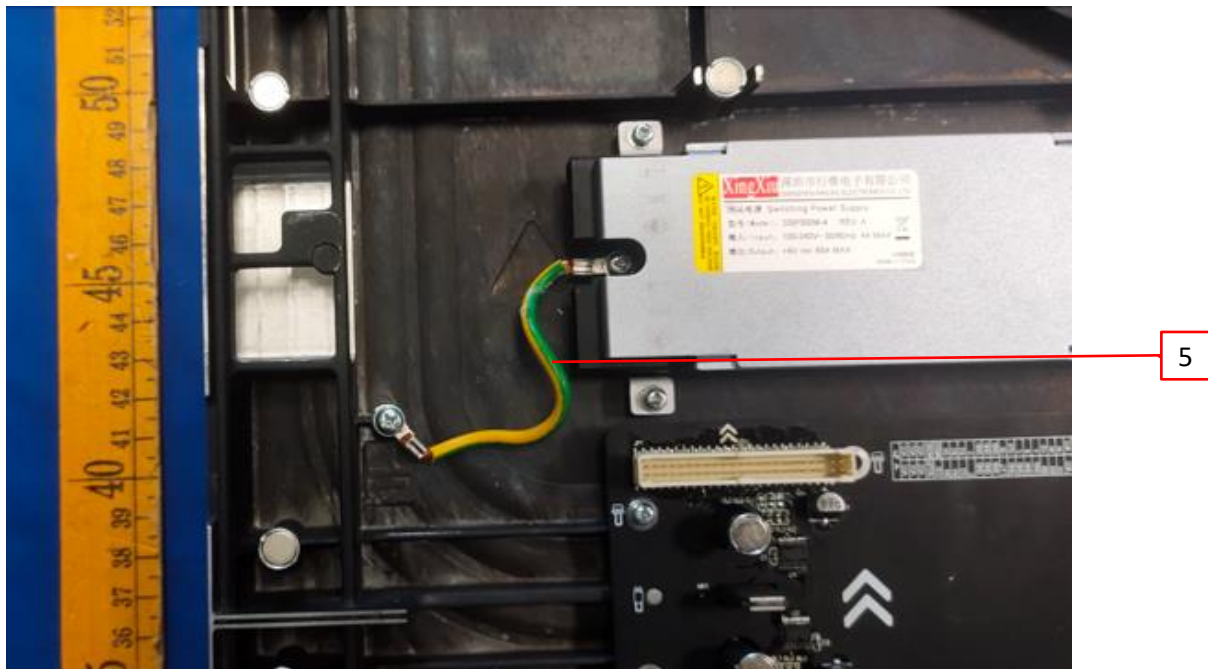
**Photo 4 - Internal view of EUT**



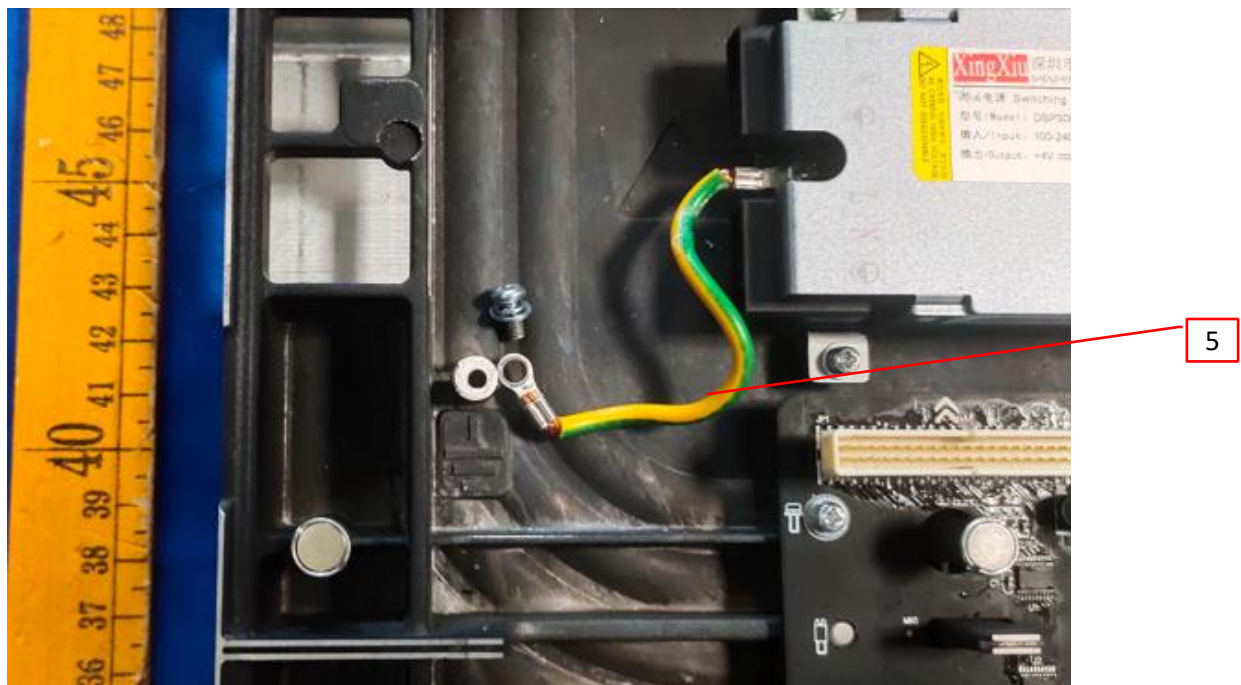


### 3.0 Product Photographs

**Photo 5 - Internal view of EUT**

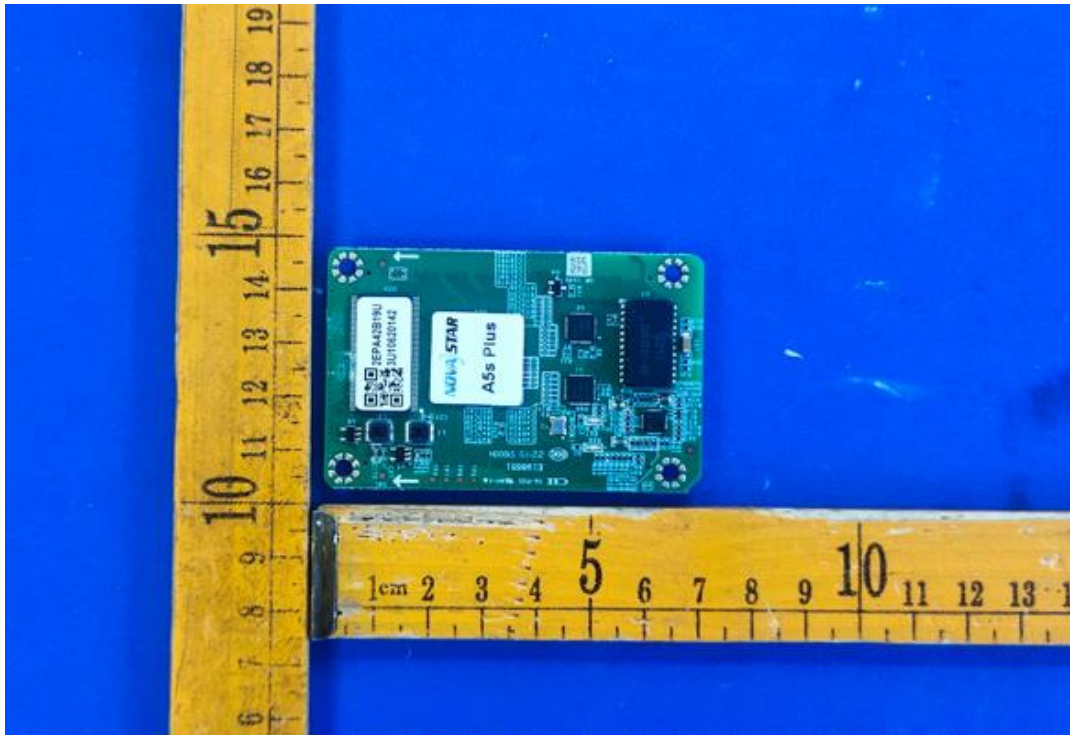


**Photo 6 - Internal view of EUT**

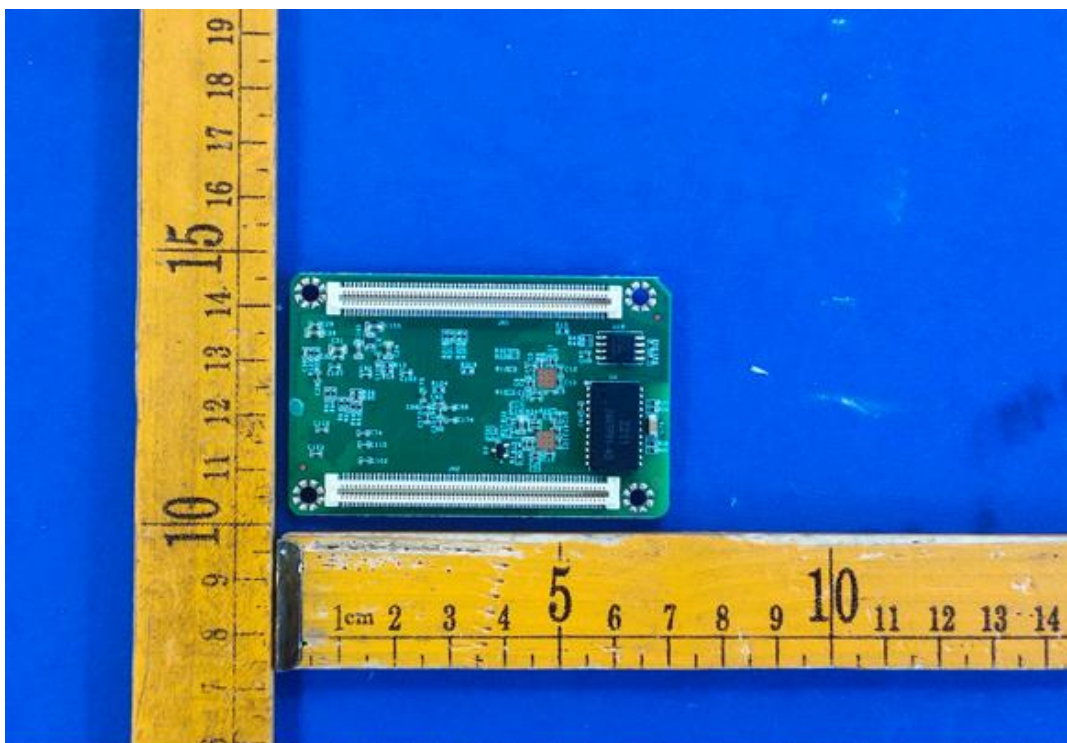


### 3.0 Product Photographs

**Photo 7** - Internal view of EUT



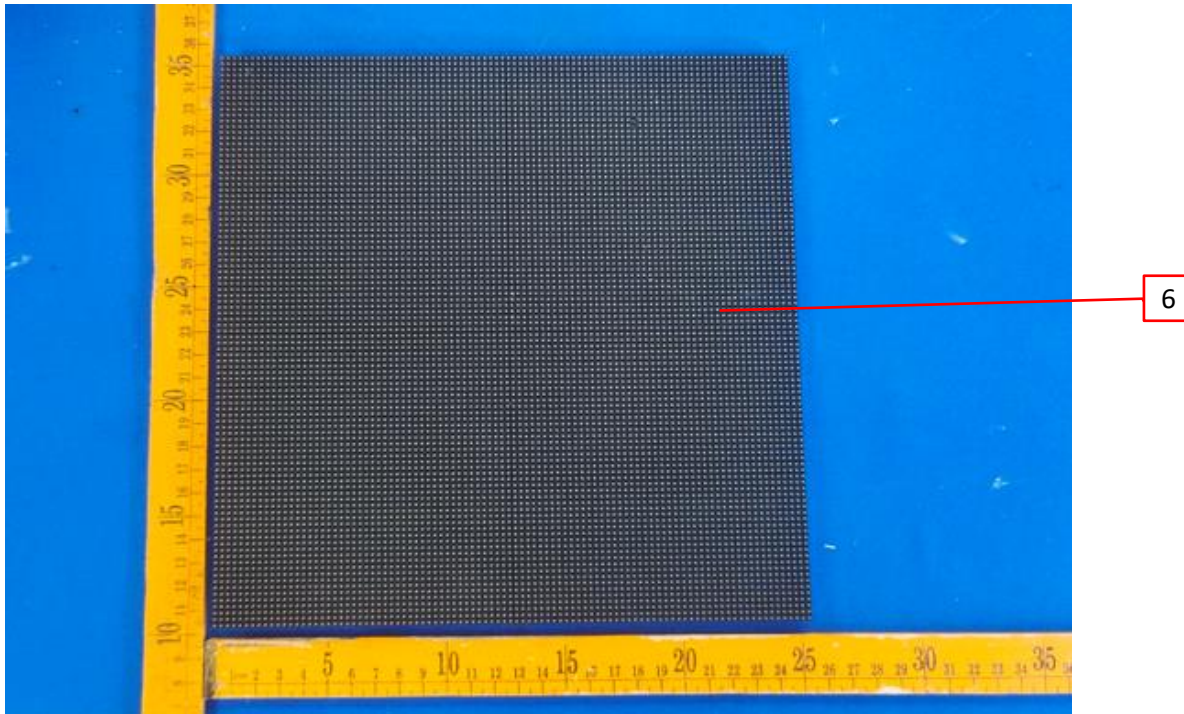
**Photo 8** - Overall view of LED module



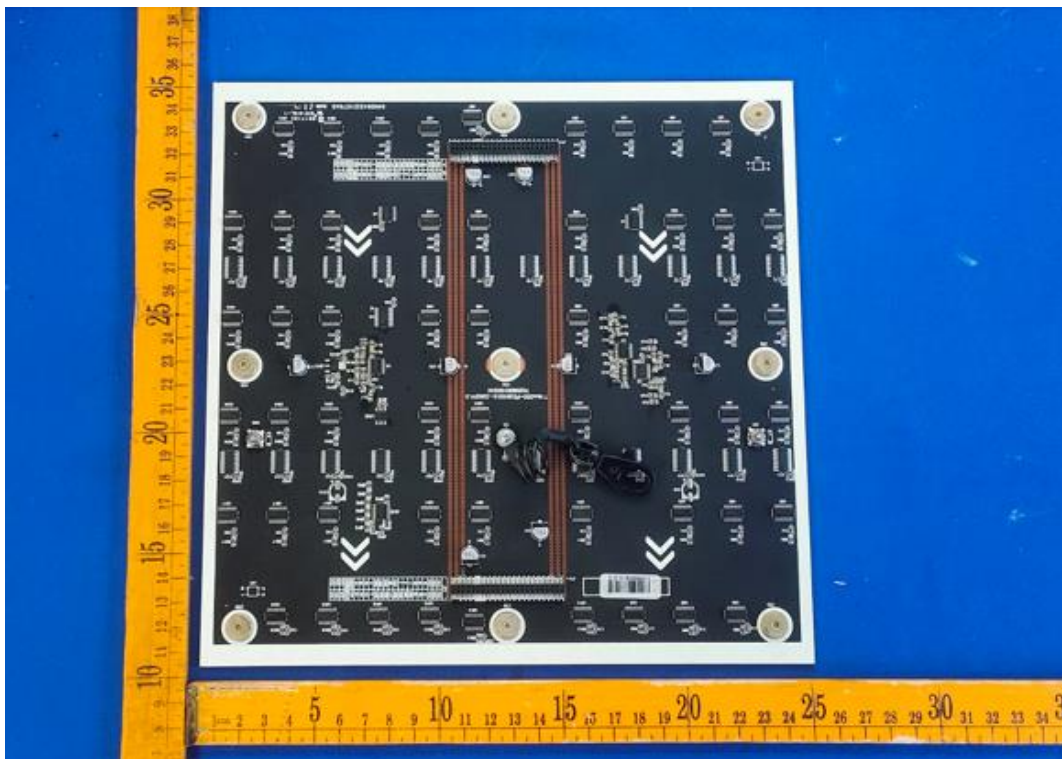


### 3.0 Product Photographs

**Photo 9** - Overall view of LED module



**Photo 10** - Overall view of PCB

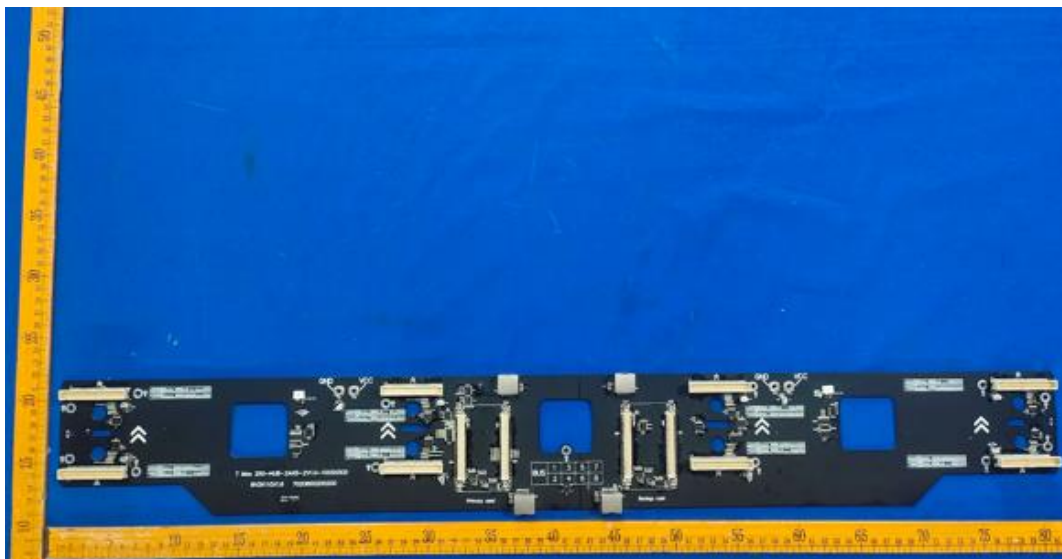


### 3.0 Product Photographs

**Photo 11** - Internal view of EUT



**Photo 12** - Overall view of PCB





### 3.0 Product Photographs

**Photo 13** - Overall view of PCB



**Photo 14** - Internal view of EUT



### 3.0 Product Photographs

**Photo 15** - Overall view of built-in power supply



**Photo 16** - Overall view of built-in power supply



4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
2	1	Metal enclosure	Various	Various	Aluminium alloy, min. 1.0mm thickness	NR
1	2	Plastic material of enclosure	LOTTE CHEMICAL CORPORATION	PCP-2605(+)	PC, V-1, 80°C, min. 1.5mm thickness	cURus
			SABIC INNOVATIVE PLASTICS US L L C	RF0057E(f1)	5VA, 110°C, min. 1.5mm thickness	
4	3	PCB	Shengyi Electronics Co Ltd	M42	Min. V-0, 130°C, min. 1.2mm thickness	UR
			Various	Various	Min. V-0, 130°C, min. 1.2mm thickness	
4	4	Internal output wire	DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD	1330	Min. 10AWG x 4, min. 200°C, min. 600V, VW-1 (Connected to input connector, output connector and built-in power supply, used as internal wire)	cURus
			Various	1330		
5	5	Earth wire	DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD	1015	Min. 14AWG, min. 80°C, min. 300V, VW-1 (Green or green-and-yellow)	cURus
				1007		
			SHENZHEN TONGYUAN ELECTRICAL WIRE & CABLE CO., LTD.	1015		
				1007		
			Various	Various		
9	6	LED	SUZHOU KINGLIGHT OPTOELECTRONICS CO.,LTD	JT-KF0707QBZGS URM-BB-S1	Emitted color: Red, Green, Blue. Red: IF=10mA, VF=1.7-2.4V; Green: IF=5mA, VF=2.4-3.4V; Blue: IF=5mA, VF=2.4-3.4V.	NR
			SUZHOU KINGLIGHT OPTOELECTRONICS CO.,LTD	JT-KF1415QBZGS URM-BB-Z1	Emitted color: Red, Green, Blue. Red: IF=5mA, VF=1.7-2.4V; Green: IF=3mA, VF=2.4-3.4V; Blue: IF=2mA, VF=2.4-3.4V.	NR
			Foshan Nationstar Optoelectronics Co., Ltd.	RS-1212MBAM	Emitted color: Red, Green, Blue. Red: IF=8mA, VF=1.6-2.4V; Green: IF=5mA, VF=2.4-3.2V; Blue: IF=3mA, VF=2.4-3.2V.	NR



4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
3, 15	7	Built-in power supply	SHENZHEN XINGXIU ELECTRONICS CO LTD	DSP300M-4	INPUT: 100-240V~, 50/60Hz, 4A MAX OUTPUT: +4VDC, 65A MAX Class I The max. working altitude is 5000m.	cETLus
<p>NOTES:</p> <p>1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.</p> <p>2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.</p> <p>3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.</p>						

#### **5.0 Critical Unlisted CEC Components**

No Unlisted CEC components are used in this report.

## 6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits.  
(Without considering approved power supply module inside)  
Between different polarity of Line and Neutral: Cl = 2.3 mm; Cr = 2.5 mm. (up to 5000 m)  
Between live parts and secondary circuit parts: Cl = 4.5 mm; Cr = 5.0 mm. (up to 5000 m)  
Between live parts and unearthed accessible parts: Cl = 4.5 mm; Cr = 5.0 mm. (up to 5000 m)
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a metal and non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the the equipment grounding terminal.
6. Polarized Connection - Shall be evaluated when installed in the end system.
7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. For internal wire is minimum 10AWG, with a minimum rating of 600V, minimum 200°C. For earthing wire is minimum 14AWG, with a minimum rating of 300V, minimum 80°C.
8. Markings - The product is marked as follows:
  - a. Applicant name or brand name: refer to sec. 2.0
  - b. model number: refer to sec. 2.0
  - c. electrical ratings: Input: 100-240V~, 50Hz/60Hz, 10A (Max)  
Output: 100-240V~, 50Hz/60Hz, 9A (Max)
9. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. Refer to Section 7.0, Illustration No. 1-3 for details.



## 7.0 Illustrations

### Illustration 1 - Safety instructions

#### 3、Warnings:



During the installation, operation, power supply, commissioning of this product, please read this section safety measures!

Pendant l'installation, le fonctionnement, l'alimentation d'énergie, la mise en service de ce produit, lisez SVP cette section mesures de sécurité!



This product is only for professional use!  
This product by burning, shock, drop, can lead to injuries.

Ce produit est uniquement pour un usage professionnel!  
Ce produit en brûlant, choc, chute, peut conduire à des blessures.



Warnings: Load heavy. Be careful operation. Avoid injury .

Avertissements: chargez lourd, faites attention à l'opération, évitez les



Warnings: Pay attention to the load of the suspension.

Avertissements: attention à la charge de la suspension.

Warnings: Danger! High voltage. Beware of electric shock!

Avertissements :Danger! Haute tension, attention aux chocs électriques!



- ◆ In the power supply wiring and connection, be sure to shut off the main switch.
- ◆ Dans le câblage d'alimentation et la connexion, veuillez à couper l'interrupteur principal
- ◆ In the open and connecting unit box before any member, please close switch.
- ◆ Dans la boîte d'unité ouverte et de connexion avant n'importe quel membre, fermez SVP l'interrupteur.
- ◆ Maintain product grounded.
- ◆ maintenir le produit à la terre.
- ◆ Total power switch should be located close to the product and obvious, easy to move, to prevent failure can disconnect the power
- ◆ L'interrupteur d'alimentation Total de ◆ devrait être situé près du produit et évident, facile à se déplacer, pour empêcher l'échec peut déconnecter la puissance
- ◆ The screen assembly is completed, please carefully check the power wiring are in good condition.
- ◆ L'ensemble d'écran est terminé, s'il vous plaît vérifier soigneusement le câblage d'alimentation sont en bon état.
- ◆

## 7.0 Illustrations

### Illustration 2 - Safety instructions



Warnings : Wear safety helmets, in order to avoid injury to adult。  
Avertissements: portez des casques de sécurité, afin d'éviter les blessures à l'adulte.



Warnings: Beware of fire ! Avertissements: attention au feu!

- ◆ Display mounting position to have good ventilation。
- ◆ Afficher la position de montage pour avoir une bonne ventilation.
- ◆ Don't hang in case any items。
- ◆ Ne pas accrocher au cas où des articles.
- ◆ No longer in the environment temperature exceeds 40 degrees C.  
The cases using the screen。
- ◆ Ne plus dans l'environnement la température dépasse 40 degrés C. les cas utilisant l'écran.



rear view

Warnings: Please note that the display of the visual distance, to avoid long time close viewing screen, so as not to affect the eyesight



Avertissements: veuillez noter que l'affichage de la distance visuelle, pour éviter l'écran de visualisation étroit de long temps, afin de ne pas affecter la vue

This equipment is compliant with Class A of CISPR32. In a residential environment this equipment may cause radio interference.

Cet équipement est conforme à la classe A du CISPR32. Dans un environnement résidentiel, cet équipement peut causer des interférences radio.

## 7.0 Illustrations

### Illustration 3 - Safety instructions

Warnings:	
	<p>(1) Please check the requirements of the power supply before using; Veuillez vérifier les conditions de l' alimentation d' énergie avant utilisation;</p> <p>①, Do not use too high voltage power supply; otherwise, the overload can cause a fire. N' utilisez pas d' alimentation trop haute tension; Sinon, la surcharge peut provoquer un incendie.</p> <p>②, Do not use the direct-current power supply. N' utilisez pas l' alimentation à courant continu.</p> <p>(2) The alternating current cable should be connected correctly, and no damage of the alternating current cable guaranteed. Poor connection or cable damages can cause fires and electric shock accidents. Le câble de courant alternatif devrait être connecté correctement, et aucun dommage du câble de courant alternatif garanti. Une mauvaise connexion ou des dommages aux câbles peuvent causer des incendies et des chocs électriques.</p> <p>(3) Avoid pulling, bending cables. Extra weight can't be put on the cable. Évitez de tirer, de plier les câbles. Le poids supplémentaire ne peut pas être mis sur le câble.</p> <p>(4) Switch off electrical power before plugging and pulling the cable. Coupez l' alimentation électrique avant de brancher et de tirer le câble.</p> <p>(5) Do not pull or plug the connector with wet hands, which can cause electric shock accidents. Ne tirez pas ou ne branchez pas le connecteur avec les mains mouillées, ce qui peut causer des accidents de choc électrique.</p> <p>(6) When the power supply is abnormal, shut off the switch immediately and identify the causes. Lorsque l' alimentation est anormale, coupez immédiatement l' interrupteur et identifiez les causes.</p>
Attention:	
	<p>(1) Better to use the flight case for package, in order to protect the screen during transportation. Améliorez pour employer le cas de vol pour le paquet, afin de protéger l' écran pendant le transport.</p> <p>(2) Each cabinet inside should be separated. Chaque armoire à l' intérieur doit être séparée.</p>



## 7.0 Illustrations

### Illustration 4 - Model similarity

Model list: T1.9, T2.5, T2.6, T3.1, T3.9, T4.8, T5.9

All models are identical to each other except for model number, physical dimension, quantity of LED and lattice distance of LED.

Table A:

Model	Lattice distance of LED (mm)	Cabinet Size (mm)
T1.9	1.9531	500*500 or 500*750 or 500*1000
T2.5	2.5000	
T2.6	2.6041	
T3.1	3.1250	
T3.9	3.9062	
T4.8	4.8077	
T5.9	5.9524	

8.0 Test Summary					
Evaluation Period	6-Sep-2023~7-Oct-2023			Project No.	2309A0327SHA
Sample Rec. Date	6-Sep-2023	Condition	Prototype	Sample ID.	A230906-28-001
Test Location	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					
Test Description			UL 62368-1:2019 Ed.3+R:22Oct2021 & CSA C22.2#62368-1:2019 Ed.3+U1 Clause		
Classification and limits of electrical energy sources			5.2		
Accessibility to electrical energy sources and safeguards			5.3.2		
Temperature measurements			5.4.1.4, 6.3, 6.4, 9.0, B.2.6, B.3, B.4		
Ball pressure test			5.4.1.10.3		
Clearances & Creepage distances measurement			5.4.2/5.4.3		
Humidity conditioning			5.4.8		
Electric strength test			5.4.9		
Resistance of the protective bonding system (Ground continuity test)			5.6.6.2		
Measurement of touch current			5.7.2.1/5.7.4		
Earthed accessible conductive part test			5.7.5		
Electrical power sources (PS) measurements for classification			6.2.2		
Determination of Potential Ignition Sources (Arcing PIS)			6.2.3.1		
Determination of Potential Ignition Sources (Resistive PIS)			6.2.3.2		
Input test			B.2.5		
Abnormal operating condition tests			B.3		
Fault condition tests			B.4		
Test for the permanence of markings			F.3.10		
Steady force test, 10 N			T.2		
Steady force test, 250 N			T.5		
Impact test			T.6		
Stress relief test			T.8		

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Jiayi Huang	Reviewed by:	Jack Chen
Title:	Engineer	Title:	Reviewer
Signature:	Signature on file	Signature:	Signature on file

## 9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

<b>BASIC LISTEE</b>	Shenzhen Fabulux Technology Co., Ltd
<b>Address</b>	Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen Guangdong 515110
<b>Country</b>	China
<b>Product</b>	LED Display

<b>MULTIPLE LISTEE 1</b>	ADJ Products LLC
<b>Address</b>	6122 S, Eastern Avenue Los Angeles, CA 90040
<b>Country</b>	USA
<b>Brand Name</b>	ADJ

<b>ASSOCIATED MANUFACTURER</b>	Shenzhen Fabulux Technology Co., Ltd
<b>Address</b>	Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen Guangdong 515110
<b>Country</b>	China

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS
WMS1	T1.9
WMS2	T2.6
WMS3	T3.9
WMS4	T4.8
WMS5	T5.9

<b>MULTIPLE LISTEE 2</b>	None
<b>Address</b>	
<b>Country</b>	
<b>Brand Name</b>	

<b>ASSOCIATED MANUFACTURER</b>	
<b>Address</b>	
<b>Country</b>	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

<b>MULTIPLE LISTEE 3</b>	None
<b>Address</b>	
<b>Country</b>	
<b>Brand Name</b>	

<b>ASSOCIATED MANUFACTURER</b>	
<b>Address</b>	
<b>Country</b>	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

## 10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

### COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments

### LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

**For US standards**, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

**For Canadian standards**, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

**If all standards on the ATM have the same standard title**, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

**Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.**

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

### MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

### FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.



#### **10.1 Evaluation of Unlisted Components**

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

**The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.**

**Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.**

Managing CEC Location:  
Intertek Testing Services Shanghai Limited  
ETL Component Evaluation Center  
Building No. 86, 1198 Qinzhou Road (North)  
Shanghai 200233, China  
Attn: Ms. Emiliana Zhou

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

## 11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

### Required Tests

Dielectric Voltage Withstand Test.

Grounding Continuity Test.

## 11.1 Dielectric Voltage Withstand Test

### Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

### Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

### **Products Requiring Dielectric Voltage Withstand Test:**

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report.		
Between input circuit and earthed metal enclosure	2250Vdc or V <sub>peak</sub>	1 s
Between input circuit and secondary output terminal	3600Vdc or V <sub>peak</sub>	1 s

## 11.2 Grounding Continuity Test

### Method

Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.

If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.

### **Products Requiring Grounding Continuity Test:**

All products covered by this Report.

## 12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

[illegible]