

AUTHORIZATION TO MARK

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.

Applicant: SHENZHEN UNIVIEW LED CO., LTD Address: Floor 1-5, Building A, Area B, Second Shi'Ao Industrial Park, Langqin Rd, Dalang Community, Bao'an District, SHENZHEN CITY, Guangdong 518109 Country: CHINA Contact: Guo Chang Phone: +86-755-33581900 FAX: -- Email: guochang2000@163.com	Manufacturer: SHENZHEN UNIVIEW LED CO., LTD Address: Floor 1-5, Building A, Area B, Second Shi'Ao Industrial Park, Langqin Rd, Dalang Community, Bao'an District, SHENZHEN CITY, Guangdong 518109 Country: CHINA Contact: Guo Chang Phone: +86-755-33581900 FAX: -- Email: guochang2000@163.com
Party Authorized To Apply Mark: Same as Manufacturer Report Issuing Office: Intertek Testing Services Shenzhen Ltd. Kejyuan Branch	

Control Number: 4010394

Authorized by:

Thomas J. Patterson, Certification Manager



This document supersedes all previous Authorizations to Mark for the noted Report Number.

This Authorization to Mark is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Authorization to Mark. Only the Client is authorized to permit copying or distribution of this Authorization to Mark and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement and in this Authorization to Mark. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Intertek Testing Services NA Inc.
 545 East Algonquin Road, Arlington Heights, IL 60005
 Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s):	Information Technology Equipment – Safety – Part 1: General Requirements ANSI/UL 60950-1 2nd Edition, Dated March 27, 2007, Revision October 14, 2014 & CAN/CSA C22.2 No 60950-1-07, 2nd edition, Dated March 27, 2007, Revision October 14, 2014
Product:	Full Color LED Display
Brand Name:	UNIVIEW
Models:	NIC3.9



RECOGNIZED COMPONENT Constructional Data Report (CDR)

1.0 Reference and Address			
Report Number	150611019SZN-001	Original Issued: 9-Oct-2015	Revised: None
Standard(s)	Information Technology Equipment – Safety – Part 1: General Requirements ANSI/UL 60950-1 2nd Edition, Dated March 27, 2007, Revision October 14, 2014 & CAN/CSA C22.2 No 60950-1-07, 2nd edition, Dated March 27, 2007, Revision October 14, 2014		
Applicant	SHENZHEN UNIVIEW LED CO., LTD	Manufacturer	SHENZHEN UNIVIEW LED CO., LTD
Address	Floor 1-5, Building A, Area B, Second Shi'Ao Industrial Park, Langqin Rd, Dalang Community, Bao'an District, SHENZHEN CITY, Guangdong 518109	Address	Floor 1-5, Building A, Area B, Second Shi'Ao Industrial Park, Langqin Rd, Dalang Community, Bao'an District, SHENZHEN CITY, Guangdong 518109
Country	CHINA	Country	CHINA
Contact	Guo Chang	Contact	Guo Chang
Phone	+86-755-33581900	Phone	+86-755-33581900
FAX	--	FAX	--
Email	guochang2000@163.com	Email	guochang2000@163.com

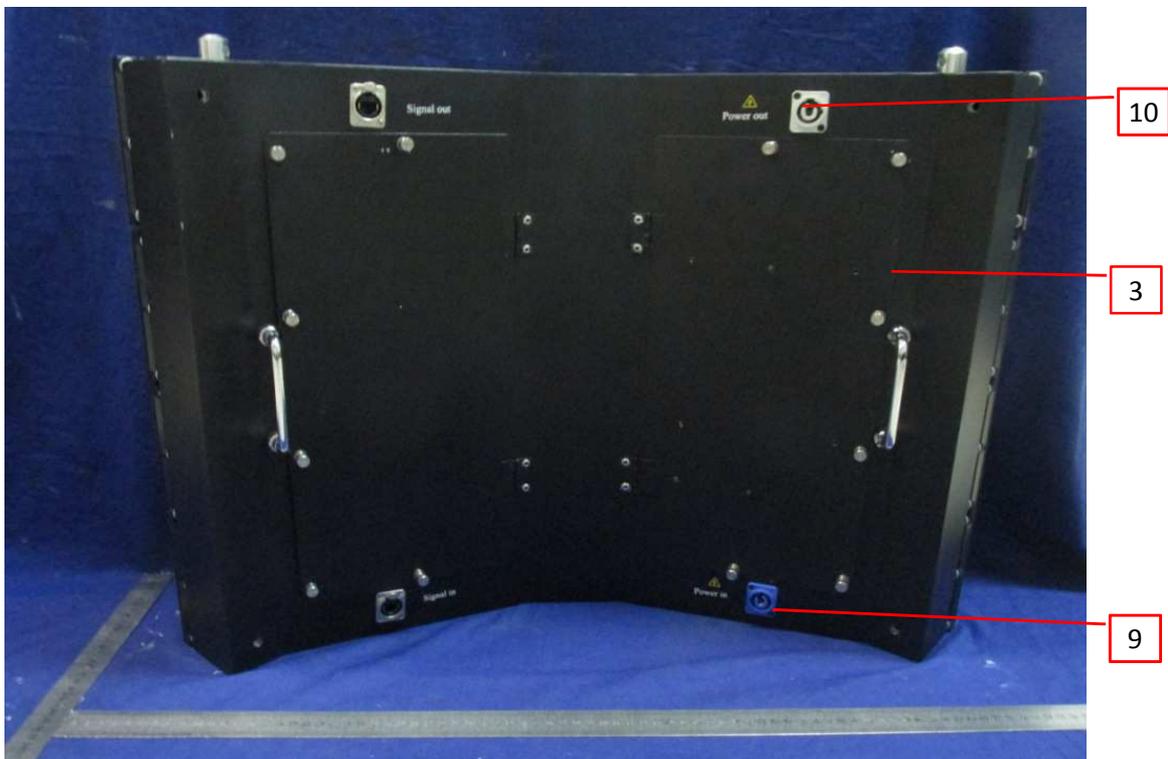
2.0 Product Description	
Product	Full Color LED Display
Brand name	UNIVIEW
Description	<p>The equipment is LED display screen for indoor use, class I apparatus, power from AC mains via detachable power cordset which is connected to appliance inlet or outlet of this equipment. It designed as built-in equipment used in restricted access location, which is not completed product, will be installed by professional service person and considered the further evaluation in final system, see the details in below conditions of acceptability.</p> <p>The rear door of equipment is fixed and locked by screws.</p> <p>No power cordset provided for test and will be field installed by qualified person.</p> <p>The LED module of display screen is fixed on front panel by magnet pad and installed with special tools by qualified person, see section 4.0, item 11 for details tech data of fixing magnet, moreover, frame of LED display screen will be wrapped the module for double reinforced stationary, see section 4.0, Illustration 4 for details.</p> <p>The LEDs of this equipment is tested and classified as Exempt Group according to IEC 62471.</p> <p>The pixel pitch of LED is 3.9 mm.</p> <p>Relevant Technical consideration:</p> <ul style="list-style-type: none"> -Equipment mobility: Stationary -Operating condition: Continuous -Connection to the mains: detachable power supply cord (no such provided for evaluated) -Access location: Restricted access location -Over voltage category(OVC): OVC II -Mains supply tolerance (%): +10%, -10% -Considered current rating of protective device as part of the building installation(A): 20A -Pollution degree (PD): PD2 -IP protection class: IP X0 -Altitude of operation (m): up to 2000 meters -Mass of equipment (kg): 13.15kg -Maximum ambient temperature: 50°C -The equipment disconnected device is considered to be: Appliance inlet
Models	NIC3.9
Model Similarity	NA
Ratings	Input: AC 100-120V / 200-240V~, 50/60Hz, 16A Output: AC 100-120V / 200-240V~, 50/60Hz, 14A
Other Ratings	NA
Conditions of Acceptability	<p>The products covered in this report are incomplete in construction features or limited in performance capabilities, the additional consideration should be given to the following when it will intend to use in or with the final system.</p> <ul style="list-style-type: none"> - Suitable side, top and bottom enclosure should be evaluated in final system - Clause 5.1 Touch current test should be performed(if link more than one power module). - Clause 3.2 Connection to the mains : determined in final system. - Clause 4.1 Stability Test - Clause 4.2.10 Mechanical Strength-Mounting Means Test - Clause 4.3.13.5.2 Light emitting diodes (LEDs) - No operator access area, the device is intended for service person access only.

3.0 Product Photographs

Photo 1 - Front view of EUT



Photo 2 - Rear view of EUT



3.0 Product Photographs

Photo 3 - Internal view of EUT

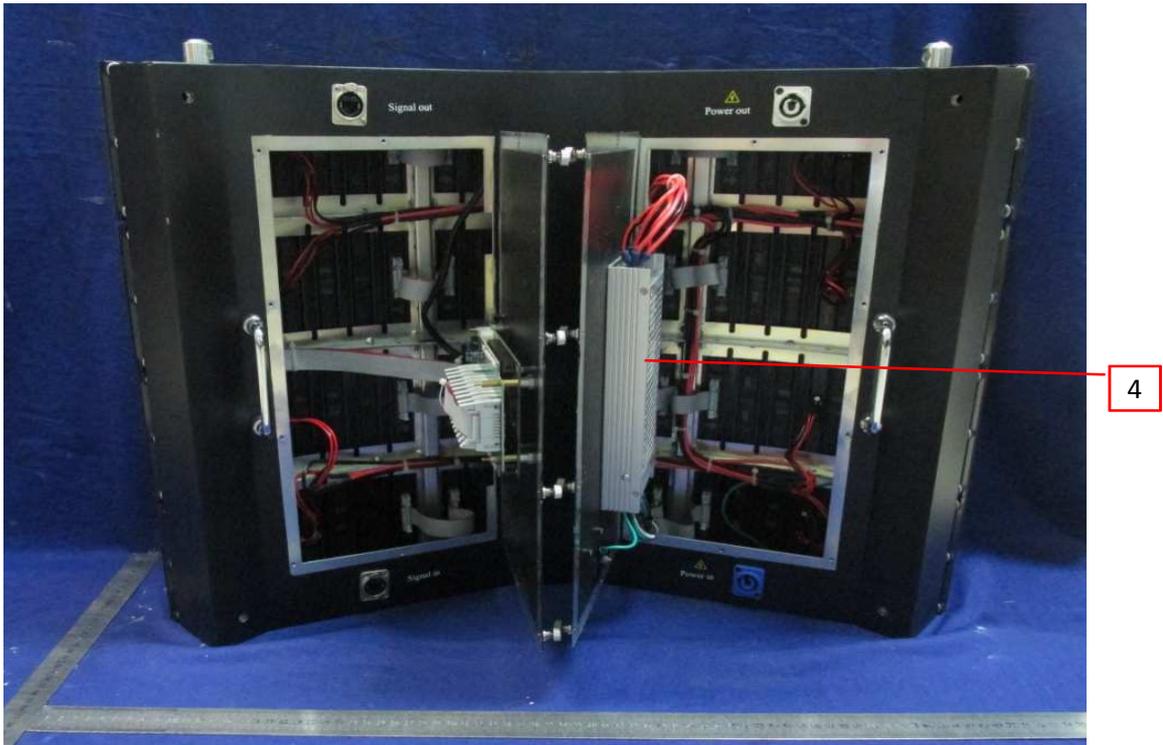
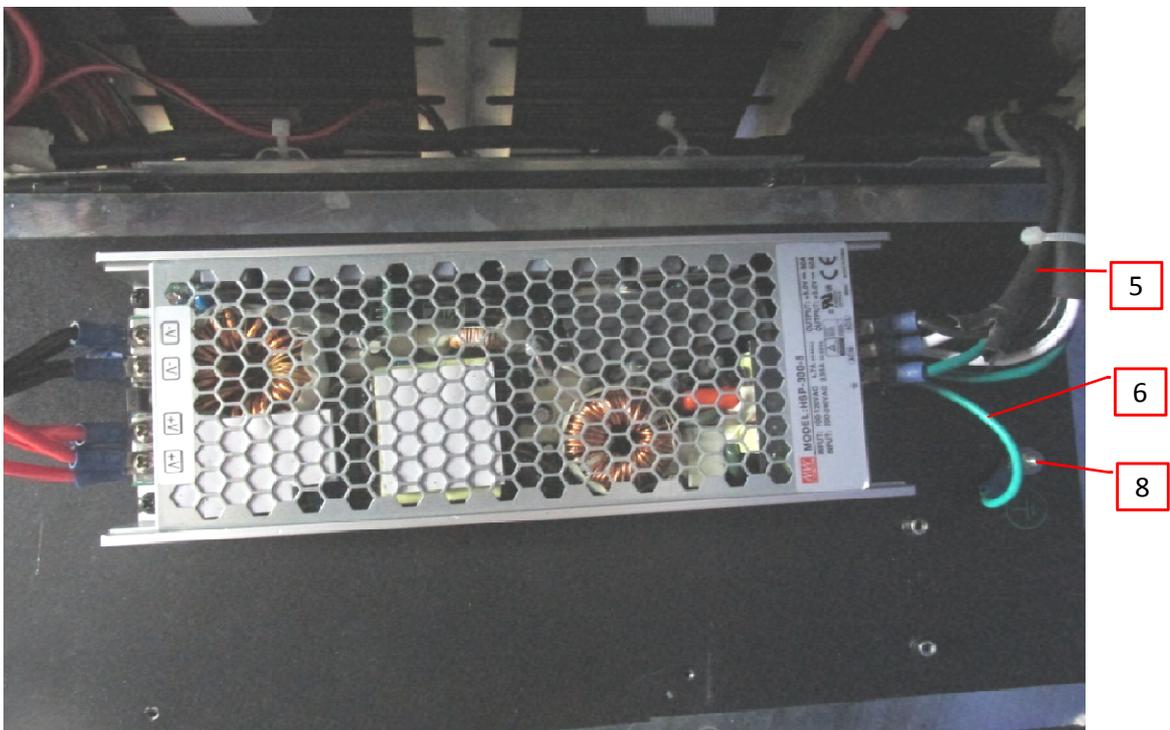


Photo 4 - Internal view of EUT - Right Door



3.0 Product Photographs

Photo 5 - Internal view of EUT - Left Door

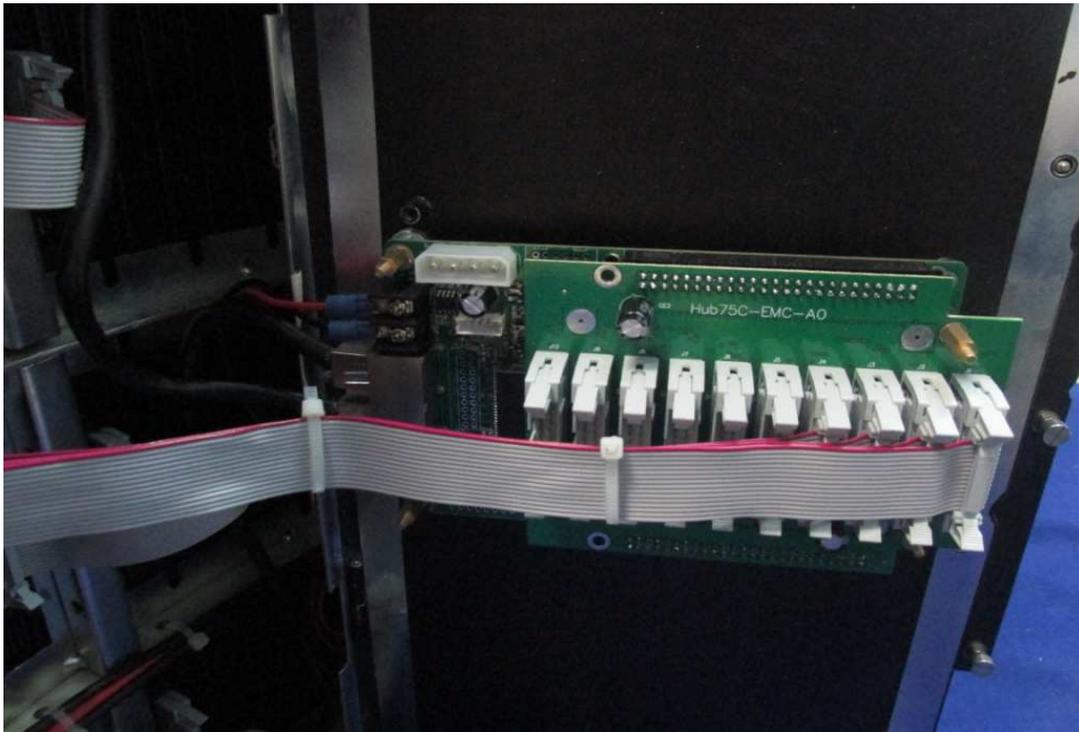
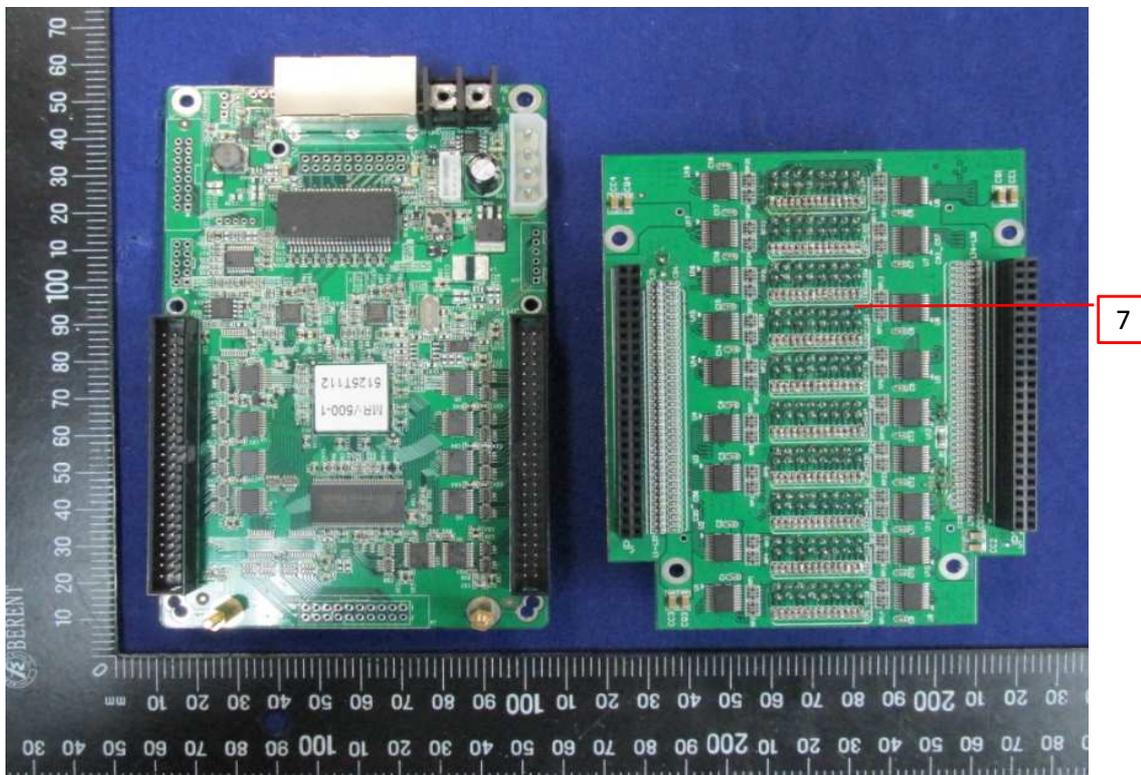


Photo 6 - Top view of main board and connect board

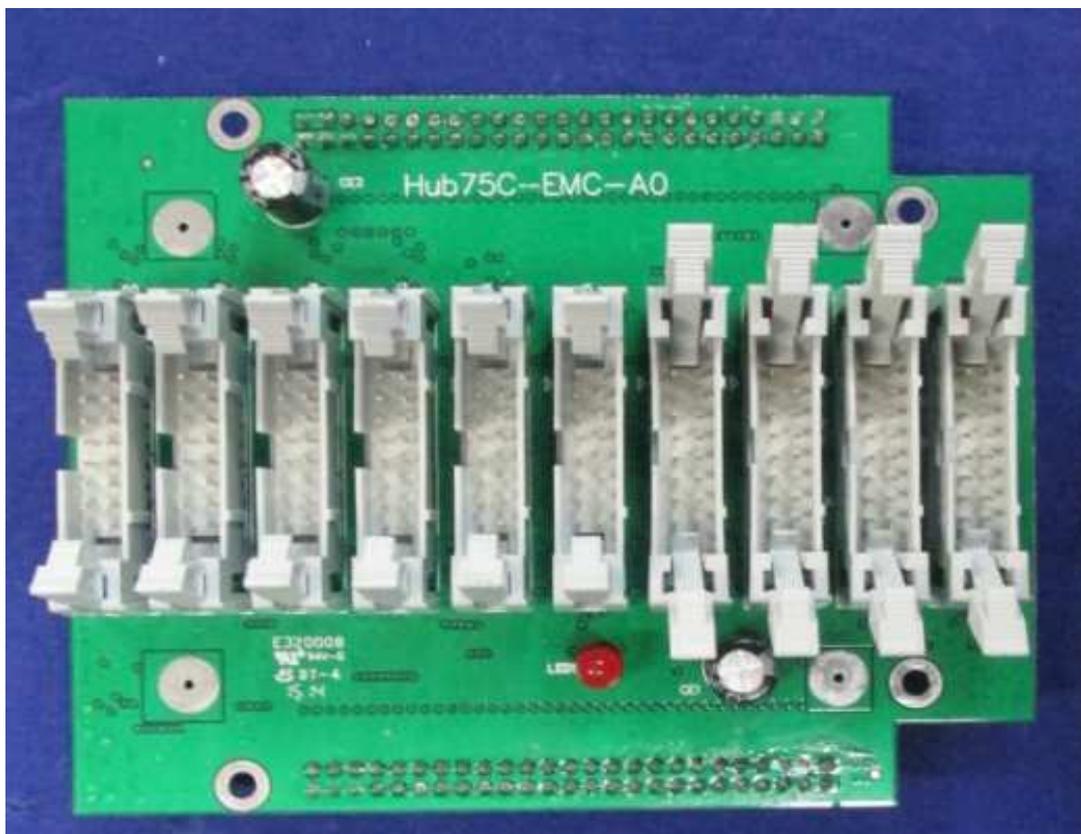


3.0 Product Photographs

Photo 7 -Bottom view of main board



Photo 8 - Bottom view of connect board



3.0 Product Photographs

Photo 9 - Built-in power supply module view

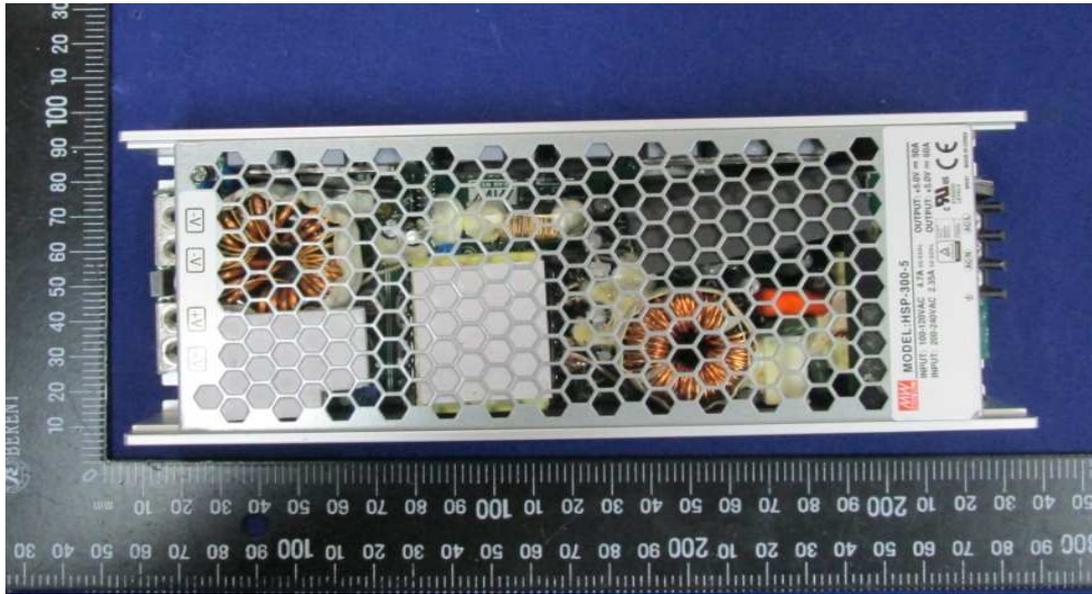


Photo 10 - Built-in power supply module view



3.0 Product Photographs

Photo 11 - LED module view

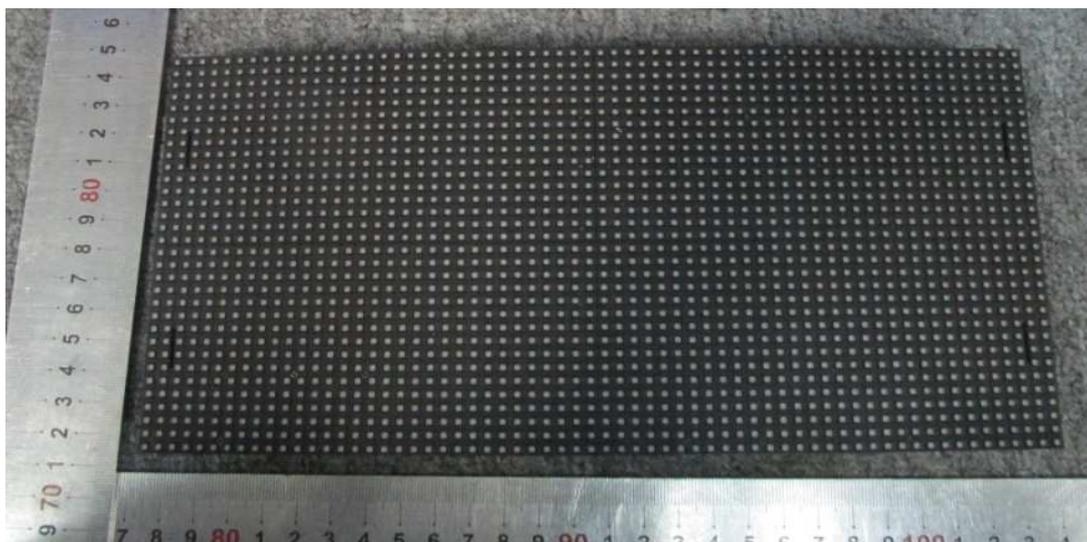
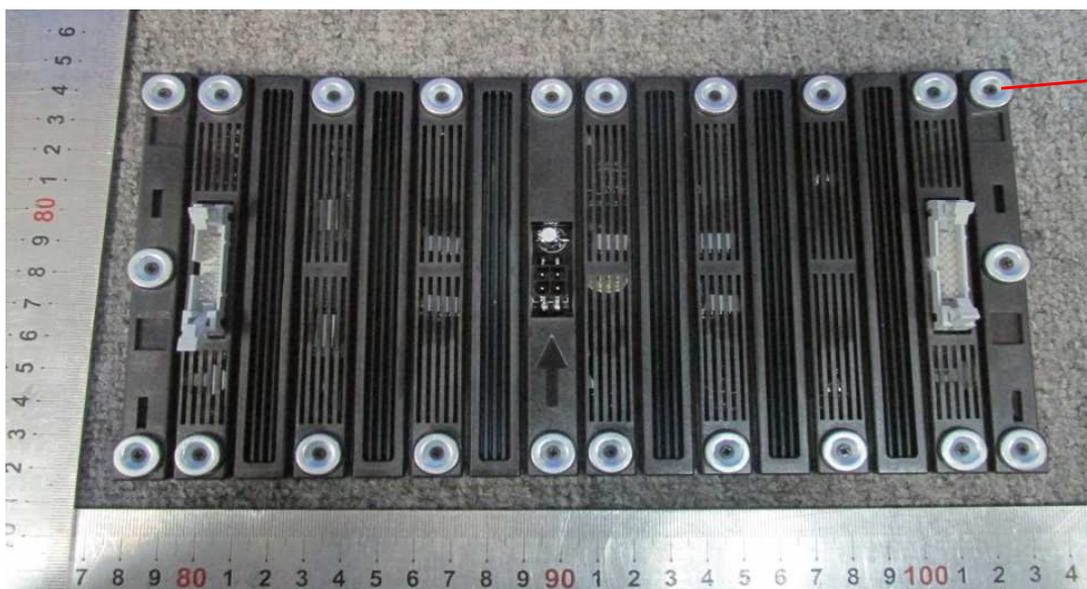


Photo 12 - Magnets of LED module



11

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	1	LED lamp	FOSHAN NATIONSTAR OPTOELECTRONICS CO.,LTD	FM-B2020SEGEBE W	Max. 2.6Vdc, 20mA for Red LED; Wavelength peak at 630nm; Max. 3.6Vdc, 20mA for Green LED; Wavelength peak at 530nm; Max. 3.6Vdc, 20mA for Blue LED, Wavelength peak at 480nm. Pixel pitch 3.9 mm.	NR
1	2	Plastic material for Enclosure	LOTTE CHEMICAL CORPORATION	PCP-2605(+)	5VB, 80°C, Min. thickness 2.0 mm.	cURus
2	3	Metallic enclosure	Various	Various	Metal, Min. Thickness 1.5mm.	NR
3	4	Built-in power supply module	MEAN WELL ENTERPRISES CO LTD	HSP-300-5	Input: 100-120 Vac, 50/60 Hz, 4.7 A; Output: 5.0 Vdc, 50 A.or Input: 200-240 Vac, 50/60 Hz, 2.35A; Output: 5.0 Vdc, 60 A. Altitude of operation (m) : Up to 2000 m, the maximum ambient temperature 50°C	cURus
4	5	Internal primary lead wire	Various	SJT	Min.VW-1, 14AWG*3C, 600V, 105°C	cURus
4	6	Earthing wire	Various	Various	105°C, 600V, Min. 16AWG,, Yellow-and-Green, used between terminal block and metal enclosure	cURus
6	7	All PCB	Various	Various	Rated V-1 or better, 130°C	cURus
4	8	Protective bonding Terminal with fixed screw and washer	Various	Various	Terminal:4.8mm,Zn coated Iron; Screw with washer:2.6mm,Zn coated Iron	NR
2	9	AC inlet	NEUTRIK AG	NAC3FCA	20A, 250Vac	cURus
2	10	AC outlet	NEUTRIK AG	NAC3FCB	20A, 250Vac	cURus
12	11	Fixed magnet for LED module	Shenzhen Uniview LED Co., Ltd	Various	Ferrite, Dia. 12mm, Min. Thickness: 5.0mm, mass: 4.0g, suction 20N for each magnet, Total 22 pcs used for each LED module. Total 264 pcs used for this LED display.	NR

NOTES:

- 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.
- 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.
- 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.

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.

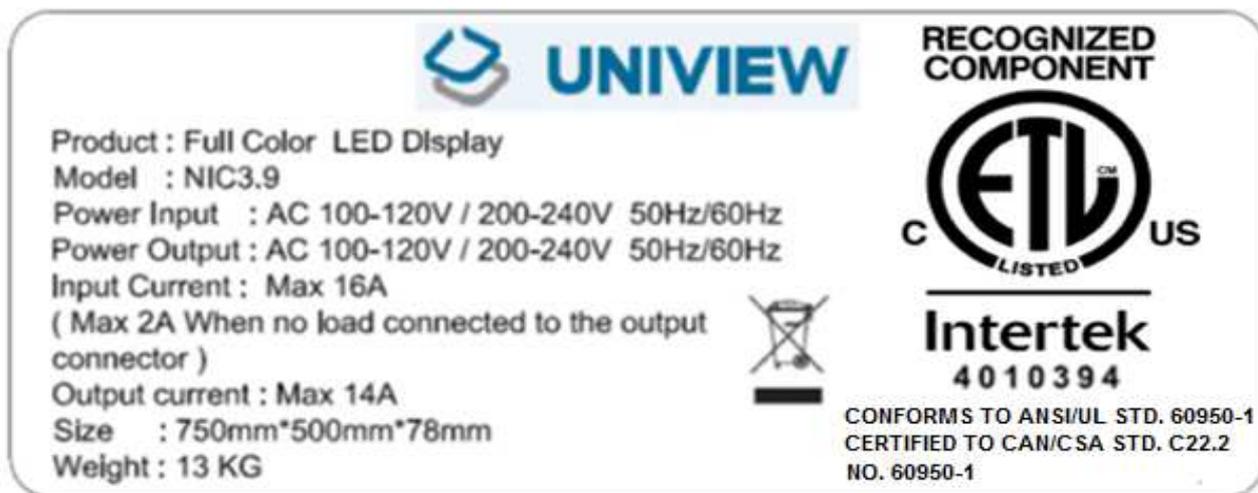
Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

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 - as following:
Limits between different polarity of Line and Neutral: Cl = 1.5mm; Cr = 2.4mm.
Limits between live parts of power board and earthed accessible metal parts: Cl = 2.0mm; Cr = 2.4mm.
Limits between live parts of power board and unearthed accessible parts: Cl = 4.0mm; Cr = 4.8mm.
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 - The relevant accessibility should be considered in the end product which the built-in component considered in end system used within it.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord or the equipment grounding terminal.
6. Polarized Connection - Provided the mechanical construction of approved inlet and outlet for protection.
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.
8. Schematics - NA.
9. Markings - The product is marked as follows:
 - manufacturer's name or brand name;
 - model number;
 - electrical ratings (input voltage, frequency, current).
 - ETL, cETL certification marking.Refer to Illustration No. 1 for details.
10. Cautionary Markings - Caution and Warning Markings need to be in both French and English when sold in Canada.
11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. When selling in Canada market, instructions in both French and English are required. Refer to Illustration No(s). 2-5 for details.

7.0 Illustrations

Illustration 1 - Marking



Symbol near the protective bonding terminal

Note 1: The ETL, CETL logo shall not be less than 8 mm in width and in height, "C" and "US" and the control No. "4010394" shall not be less than 2 mm in height, "Intertek" shall be at least 3 mm in height and "CM" shall be at least 1 mm in height. "CONFORMS TO ANSI/UL STD. 60950-1" and "CERTIFIED TO CAN/CSA STD. C22.2 NO. 60950-1" shall not be less than 1.5 mm in height.

Note 2: Caution and Warning Markings need to be in both French and English when sold in Canada.

7.0 Illustrations

Illustration 2 - User's manual and Installation manual

I. Safety information



Warning:

Avertissement:

Make sure to understand and follow all of the manual's safety information, important warnings and notes.

Assurez-vous que vous avez bien compris et suivi toutes les informations de sécurité sur ce manuel d'utilisation, l'avertissement important.

- Don't jam the air vents. Please install as the manufacturer's instruction.
Ne pas boucher les orifices d'aération, installez-les d'après les instructions de fabricant.
- Don't install the product close to heat sources like radiators, heaters, stoves or other equipments that can produce heat (including amplifiers).
Ne pas installer ce produit près de source de chaleur comme les radiateurs, les chauffages, les poêles ou les autres équipements qui peuvent produire de la chaleur (les amplificateurs inclus).
- Don't tread power and data lines; especially avoid squeezing plugs, outlets and power/data lines led from equipments. Replace damaged power and data cables immediately.
Ne pas marcher sur la puissance et les lignes de données; surtout éviter de compresser la prise femelle et mâle, la ligne d'alimentation / ligne de données de LED. Remplacer immédiatement les câbles d'alimentation et ceux de données endommagées.
- Only the company designated accessories and fittings can be used.
Seulement les accessoires désignés par notre entreprise peuvent être utilisés
- Please cut off the power or provide other applicable lightning protection in thunders. Please cut off the power without using the product for a long time.
Couper l'alimentation ou de installer une autre protection contre la foudre applicable dans tonnerres. Coupez l'alimentation si vous n'utilisez pas le produit pendant une longue période
- The mains plug of appliance coupler is used as the disconnected device and the socket-outlet shall be installed near the equipment and shall be easily accessible.
La prise de mâle du coupleur de l'appareil doit être utilisée comme un dispositif disconnecté et la prise femelle doit être installée près de l'équipement et doit être facilement à approcher.
- Please put the distribution box close to the product in order to easily cut off the power.
Mettre la boîte de distributeur près du produit pour éteindre facilement la puissance principale si il y a quelque problème.
- The product shall be installed and maintained by qualified technical service staff. Please contact professional maintenance personnel to repair the product damaged due to various reasons (such as the power or plug broken down, the equipment failure or falling down).
Le produit doit être installé et maintenu par les techniciens qualifiés et certifiés. Contacter les employés du maintenance pour réparer le produit endommagé dû à raisons différentes (comme la puissance ou la prise de mâle sont dérangés, ou l'équipement est en panne).
- Use the product by combining with the manufacturer designated or equipment accessory system or the peripheral equipment. Be sure to be careful to uplift, move or transport the product, avoiding damage of product from falling down and injury of people.
Utiliser le produit en combinant avec le fabricant désigné ou le système de l'accessoire de l'équipement ou le matériel périphérique. Assurez-vous de faire attention à élever, déplacer ou de transporter le produit, évitant les dommages de produit de tomber et des blessures de personnes.



7.0 Illustrations

Illustration 3 - User's manual and Installation manual



SHEN ZHEN UNIVIEW LED CO.,LTD.



- ◆ Owing to improper operations, the product may give rise to electric shock, fire or falling down and cause serious damage or death.
A cause d'utilisation incorrecte, le produit peut donner lieu à un choc électrique, un incendie ou de tomber et causer des dommages graves ou la mort.
- ◆ The input voltage of the product is divided into: AC 100-120V/200-240V 50Hz/60Hz in accordance with different areas. La tension d'entrée de produit est divisée en: AC 100-120V/200-240V 50Hz/60Hz conformément aux différentes zones
- ◆ Please ensure to have cut off the master switch of input power of the whole display when installing the product and wiring. Please be sure to have sound grounding.
Assurer d'avoir coupé l'interrupteur principal de l'alimentation de l'écran pendant l'installation du produit et le câblage. Soyez sûr d'avoir mise à la terre.
- ◆ Please not provide the product output power terminals for other equipments. Please be careful to check if there is trouble in the power line and its joint and terminal blocks before powering on.
Ne pas utiliser les bornes de puissance de sortie de produits pour d'autres équipements, prendre soin de vérifier s'il y a des problèmes dans le joint de la ligne d'alimentation ou blocs de jonction avant fonctionner.
- ◆ Prohibit using any damaged or bare power lines or power plugs.
Interdire à utiliser lignes électriques ou des prises de puissance quand elles sont dédommagées ou nues.
- ◆ In order to reduce the shock hazard, please don't dismantle the front cover (or rear cover).
Afin de réduire le risque électrique, ne pas démonter le capot au front (ou au arrière).

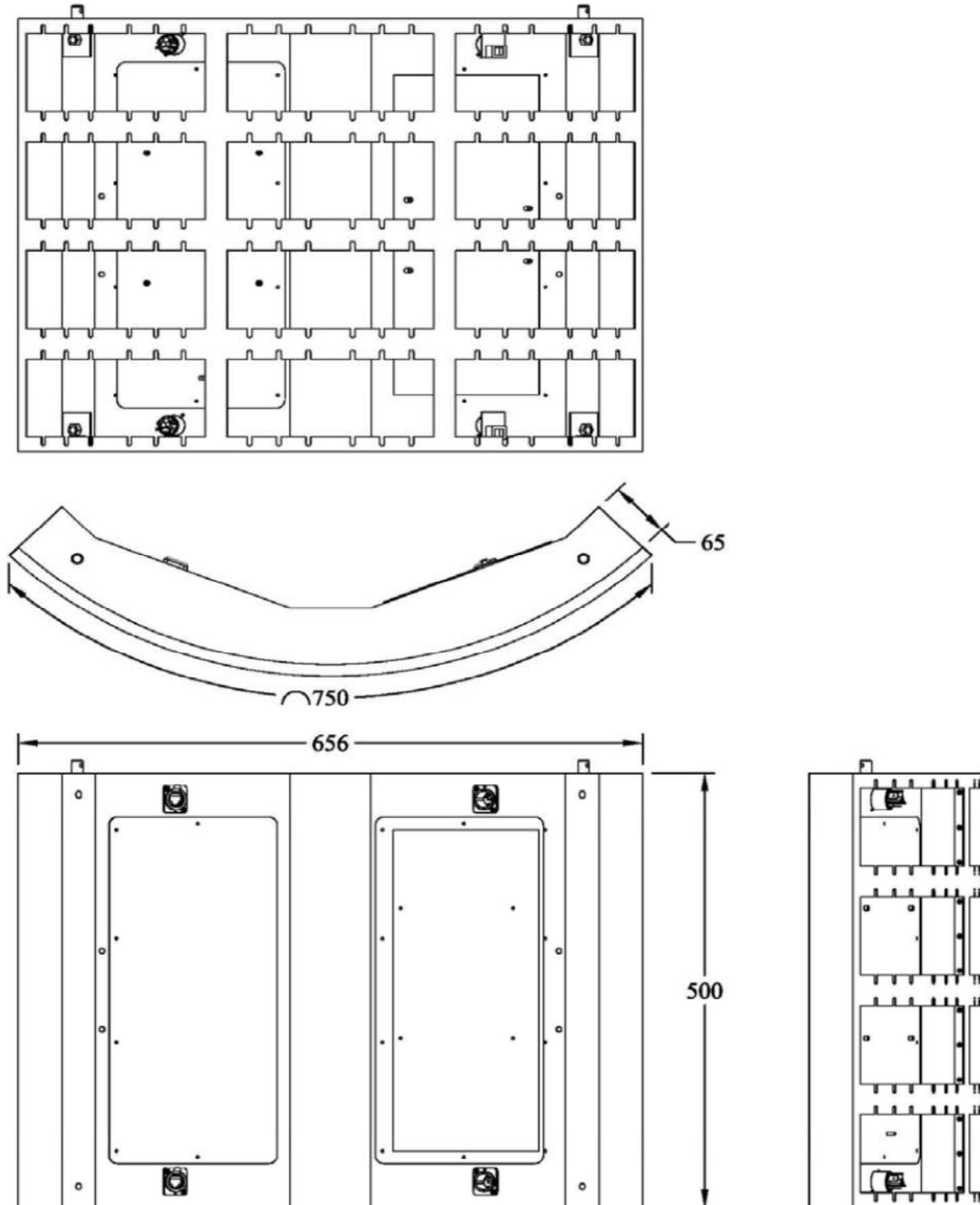


- ◆ Please provide at least 30cm space for the rear radiator to radiate.
Fournir au moins 30 cm d'espace pour le radiateur arrière à bien marcher.
- ◆ Please don't directly place or paste any articles on the LED light.
Ne pas placer directement ou coller des articles sur la lumière LED.
- ◆ Please don't use the product if the environment temperature is over 50°C.
Ne pas utiliser ce produit si la température de l'environnement est plus de 50°C.
- ◆ As the product will generate quantities of heat, please put the product far away from inflammables and explosives. Ensure adequate ventilation during installing for safe running of the product.
Le produit va produire du chaleur, mettre le produit loin d'objets inflammables et explosifs. Assurer une ventilation adéquate lors de l'installation pour bien fonctionner en sécurité.
- ◆ In order to avoid causing fire due to the overloaded power cables, please properly allocate the load of power cables according to this user manual or use cables configured by the company.
Pour éviter de provoquer un incendie dû à des câbles d'alimentation surchargés, accorder correctement la charge des câbles de puissance selon ce mode d'emploi ou des câbles configurés par l'entreprise
- ◆ Pay attention to the hoisting load; please make hoisting installation in strict accordance with the load limit.
Faites attention à la charge de grue, fonctionner le grue en conformant à sa limite.
- ◆ Please wear helmets during construction to avoid causing personal injury.
Porter le casque pendant la construction pour éviter de causer des accidents.
- ◆ Please fasten the seat belt when working high above the ground.
Attacher la ceinture de sécurité quand on travaille en hauteur. Please fasten the seat belt when working high above the ground.

7.0 Illustrations

Illustration 4 - User's manual and Installation manual

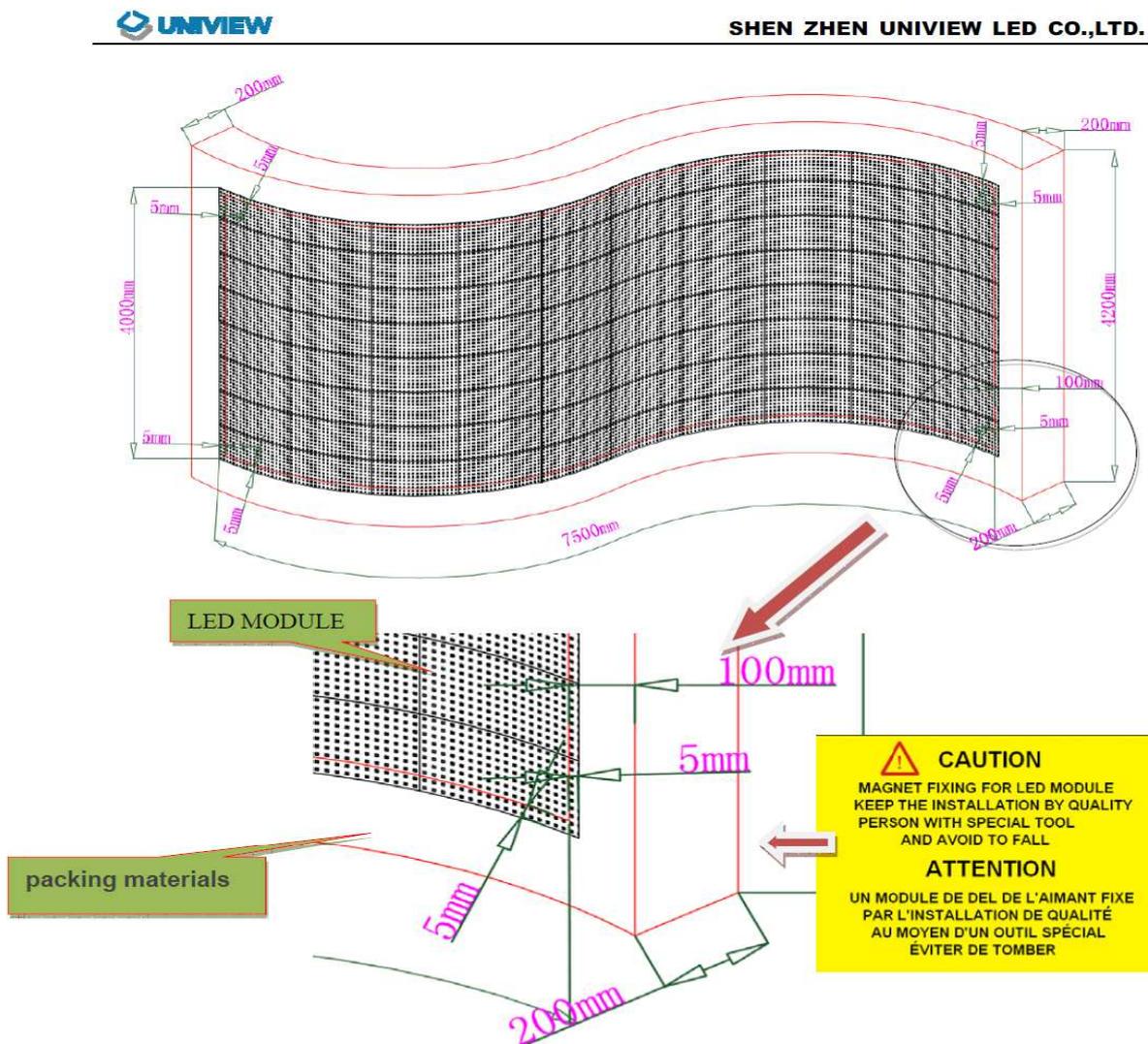
Size of LED screen



Unit: mm

7.0 Illustrations

Illustration 5 - User's manual and Installation manual



Warning:

- ☞ Please be sure to carefully lay LED to avoid strongly striking it.
Mettre soigneusement le LED pour éviter le heurt fort.
- ☞ Take necessary safety steps in the course of installation to avoid causing personal and property damages.
Prendre des mesures de sécurité nécessaires dans le cadre de l'installation pour éviter de causer des dommages personnels et matériels.
- ☞ The maximum height of hoisting installation shall be less than the total height of ten cabinets.
La hauteur maximale de l'installation de levage doit être moins basse que dix cabinets
- ☞ In order to protect all the components of the cabinet (in case that the modules on cabinet are taken down easily), please make sure the four corners of one cabinet are well-wrapped.
Après assembler bien tout les cabinet de LED ,il est nécessaire d'envelopper l'entour des cabinet de LED avec les matières spécial afin d'éviter led module de se détacher facilement.

Unit: mm

8.0 Test Summary			
Evaluation Period	11-Jun-2015 to 24-Jul-2015		Project No. 150611019SZN
Sample Rec. Date	11-Jun-2015	Condition Prototype	Sample ID. Z150611019-001
Test Location	Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch 6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. 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	ANSI/UL 60950-1 2nd Edition, Dated March 27, 2007, Revision October 14, 2014 & CAN/CSA C22.2 No 60950-1-07, 2nd edition, Dated March 27, 2007, Revision October 14, 2014 / Clause		
Input Test	1.6.2		
Marking Durability test	1.7.11		
Stored Discharge on Capacitors Test	2.1.1.7		
Resistance of earthing conductors and their terminations Test	2.6.3.4		
Humidity Conditions Test	2.9.2		
Mechanical Strength – Stress Relief Test	4.2.7		
Normal Operating Test	4.5.2		
Touch Current Test	5.1		
Electric Strength Test	5.2		
Abnormal Operations and Fault Conditions Test	5.3		
Evaluation Period	11-Jun-2015 to 24-Jul-2015		Project No. 150611019SZN
Sample Rec. Date	11-Jun-2015	Condition Prototype	Sample ID. Z150611019-001
Test Location	Dongguan EMTEK Co., Ltd. No. 281, Guantai Road, Nancheng District, Dongguan, Guangdong, China		
Test Procedure	Witnessed Manufacturer Testing (WMT) - Level 2		
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	ANSI/UL 60950-1 2nd Edition, Dated March 27, 2007, Revision October 14, 2014 & CAN/CSA C22.2 No 60950-1-07, 2nd edition, Dated March 27, 2007, Revision October 14, 2014 / Clause		
Light emitting diodes (LEDs)	4.3.13. 5.2		
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:	Vinci Liu	Reviewed by:	Tony Tong
Title:	Engineer	Title:	Project Engineer
Signature:		Signature:	

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.

BASIC LISTEE	SHENZHEN UNIVIEW LED CO., LTD
Address	Floor 1-5, Building A, Area B, Second Shi'ao Industrial Park, Langqin Rd, Dalang Community, Bao'an District, SHENZHEN CITY, Guangdong 518109
Country	CHINA
Product	Full Color LED Display

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

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 and/or revisions.

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 issue 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.

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.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to:

Intertek Testing Services Shenzhen Limited Kejiyuan Branch

ETL Component Evaluation Center

6/F, Block D, HuaHan Building, Longshan Road, Nanshan District

Shenzhen, China

Attn: Tommy Leung

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		
<u>Method</u>		
<p>One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.</p> <p>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.</p> <p>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.</p>		
<u>Test Equipment</u>		
<p>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.</p> <p>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.</p> <p>If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:</p> <ol style="list-style-type: none"> 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. <p>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.</p>		
Products Requiring Dielectric Voltage Withstand Test:		
<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report.		
Between line/neutral and output terminals	3000Vac or 4242Vdc	1s
Between line/neutral and metallic earthed enclosure surface	1500Vac or 2121Vdc	1s
No insulation breakdown during the test		
11.2 Grounding Continuity Test		
<u>Method</u>		
<p>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 equipment.</p> <p>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.</p>		
Products Requiring Grounding Continuity Test:		
<u>Product</u>	<u>Test Current</u>	<u>Test Time</u>
All equipment covered by this Report.		
Between PE terminal and further metallic enclosure surface	10A	1 s
The resistance can not exceed 100mΩ		

