Product Specification

Product Name: BCPW030060A

(V0020-LA-001)

Product Code: L1101

Any question, please contact us：

OLED lighting BU
Beijing Visionox Technology Co., Ltd.
Tel：86-10-5885 1122
Fax：86-10-5885 6622
E-mail：yojoy@visionox.com
Website：www.visionox.com
Address：1st Floor, Huanyang Plaza, 1st East road, Shangdi, Beijing 100085, P.R. China

Foreword

Dear customers，

Thanks for choosing our OLED lighting products.

OLED lighting is the most similar as sunshine artificial light source. Because of the high quality lighting, no UV and IR Radiation, no toxic substance such as mercury, no glare, it is the best light source for indoor using.

OLED is thin and light, could be transparent and flexible, which offer broad space for designer. Please contact our engineer for more information.

Applications：

1、 Decoration light；

2、 Table lamp；

3、 Chandelier；

4、 Wall lamp;

5、 …

Table of Contents

1 Overview

BCPW030060A is an upgrade OLED lighting panel of our old lighting product: V0020-LA-001. This product has higher efficiency, longer lifetime, higher brightness and better CRI.

2 Product Features

2.1 Product Image

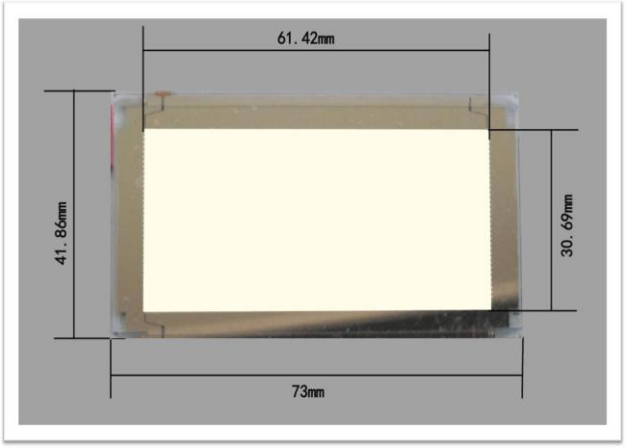


Fig. 1：BCPW030060A

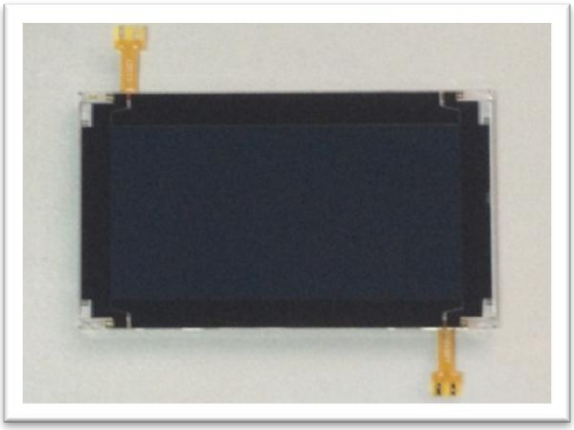


Fig.2: mirror surface

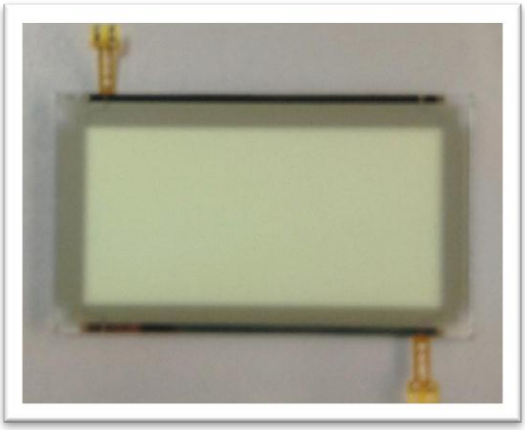


Fig.3:OLED with outcoupling film

2.2 Product Specifications

Items	Unit	Value	Reference
Total area	mm	73X42	

Lighting Area	mm	30X60	
Thickness	mm	1.8	Could be thinner
Weight	g		
Usage Temperature	℃	-30~60	
Storage Temperature	℃	-40~70	
Life Time (LT70)	h	≧10,000	Initial brightiness 1000cd/m^2
CIE(x,y)		(0.36,0.36)	
Color Tempeture	K	4500-5000	

2.3 Product Optical-Electric Parameters

OLED lighting panel is low-voltage constant-current device; please use it within the safe range.

Items	Unit	Value	Reference
Voltage	V	5-6	DC diode device
Current	mA	170	@1000cd/m2, without out-coupling film
		200	@2000cd/m2, with out-coupling film
Reverse Breakdown Voltage	V	~18	**Reference only, reverse use is prohibited**

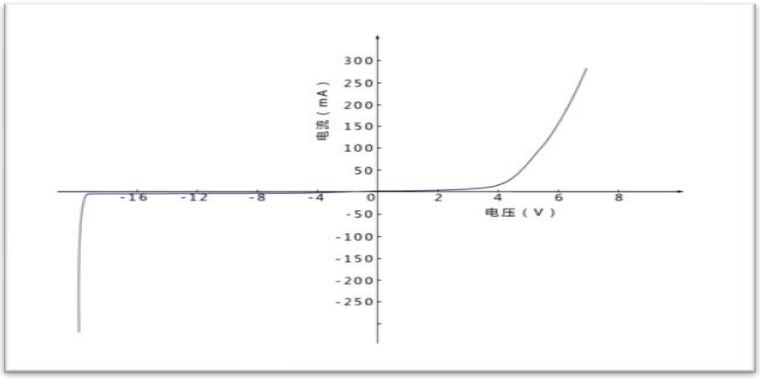


Fig.4 Voltage-current characteristic curve

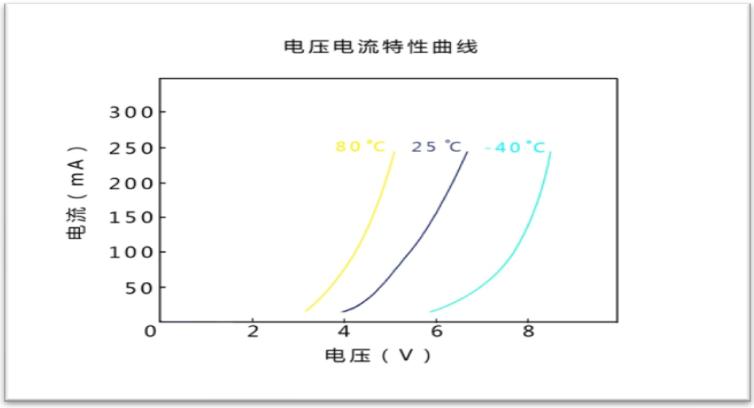


Fig.5 Temperature characteristic curve

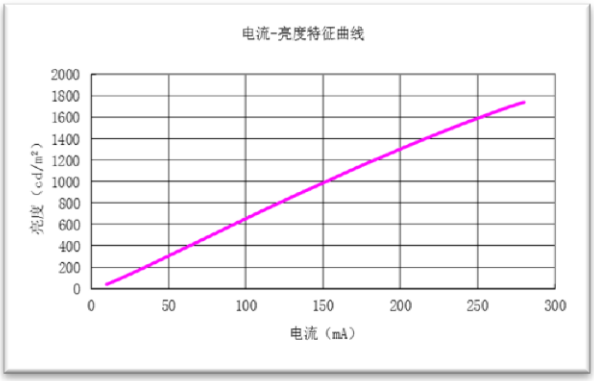


Fig.6 current-brightness characteristic curve

Note: those curves are just for showing the characteristic of OLED icon panels, doesn’ t necessary mean the real numbers

2.4 Product Emission Spectra

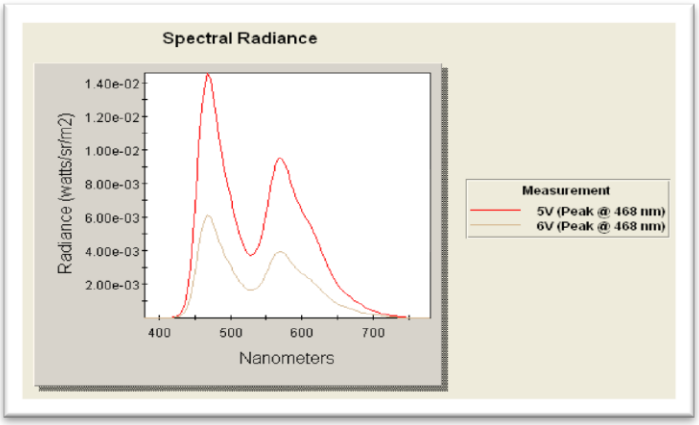


Fig. 7 white

2.5 Typical Polar radiation pattern

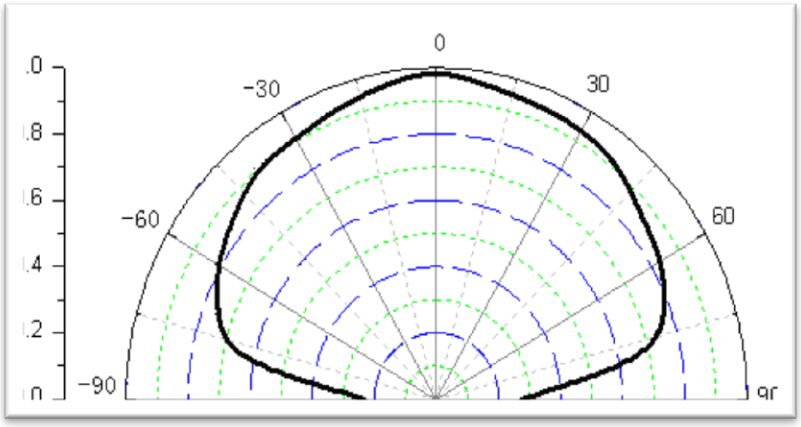


Fig. 8 polar radiation pattern

2.6 Typical angular radiation pattern

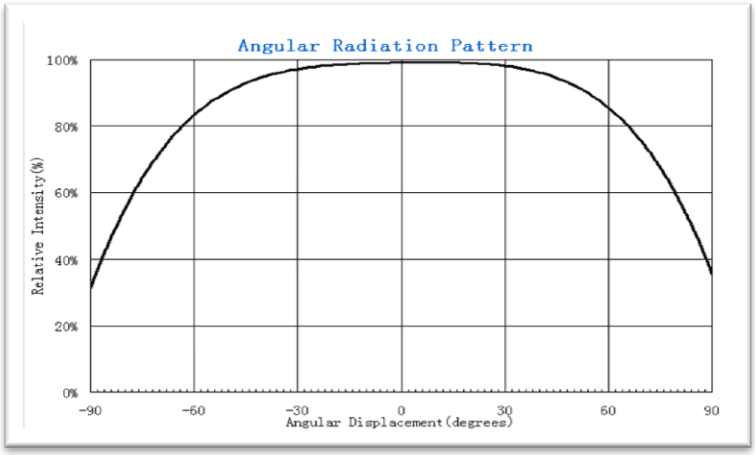
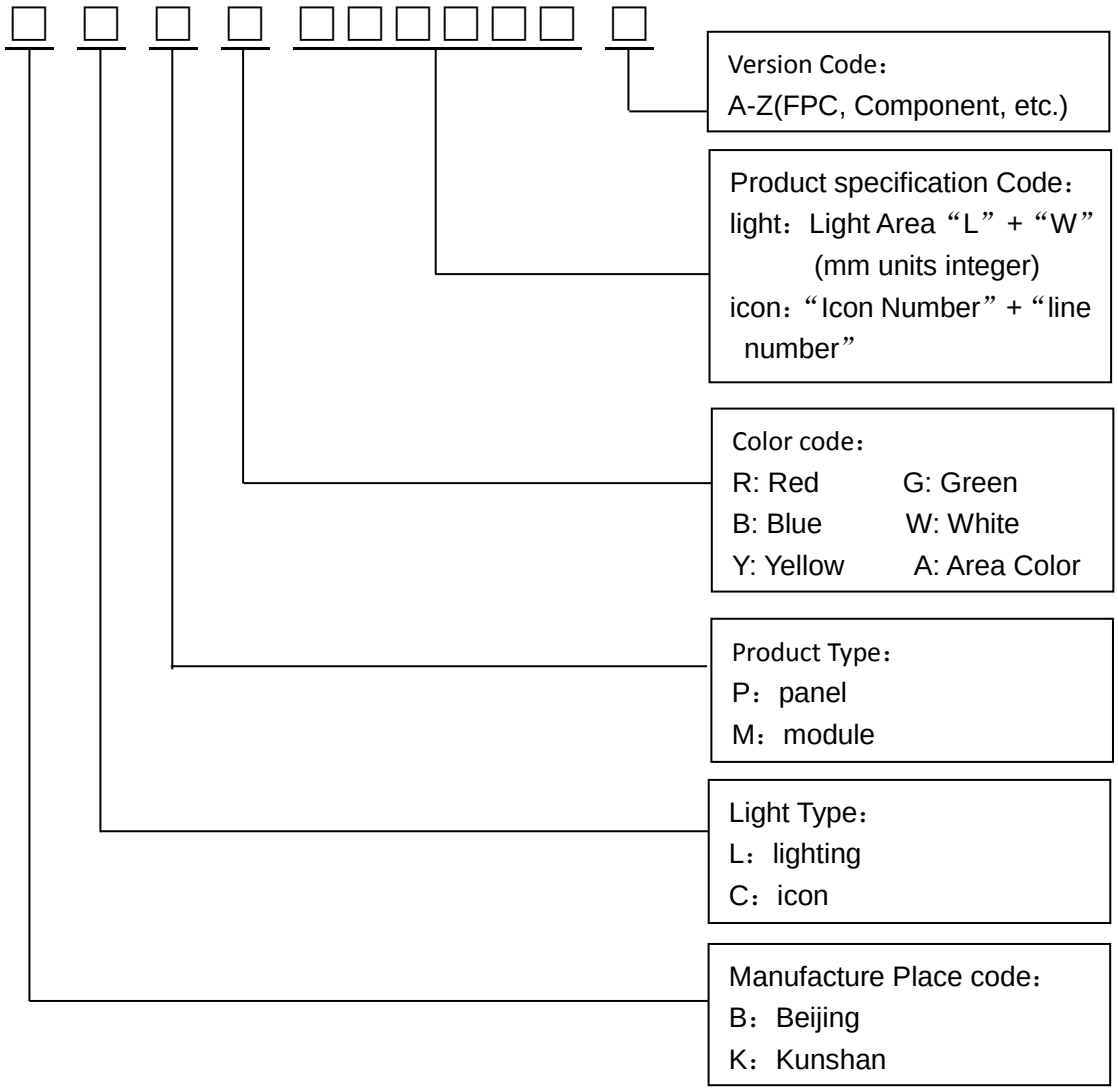


Fig. 9 Angular radiation pattern

3 Product Instructions information

3.1 Illustration of OLED Icon Name



3.2 Interconnect Information

For Panel interconnect, please use spring contact, zebra connectors of ACF flex bonding. Direct soldering onto the contact ledges is not possible. Soldering and interconnect technologies which apply heat to the light output area are not recommended and may cause OLED damage. For special modulisation support please contact Visionox.

For module, we generally using ACF flexible bonding, please see Fig.1, Fig.2, Fig 3, or Fig 10 for reference.

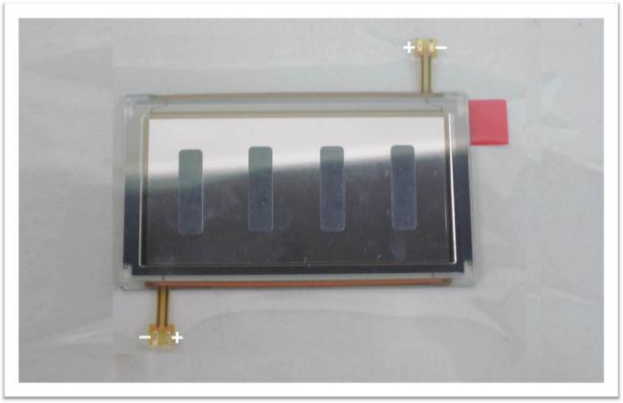


Fig. 10

3.3 Single or Multi-panels Connections

- single panel connections

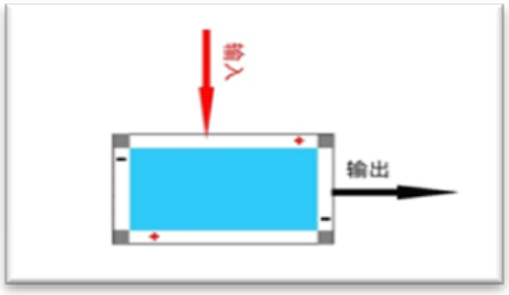


Fig.11

- multi-panel connections

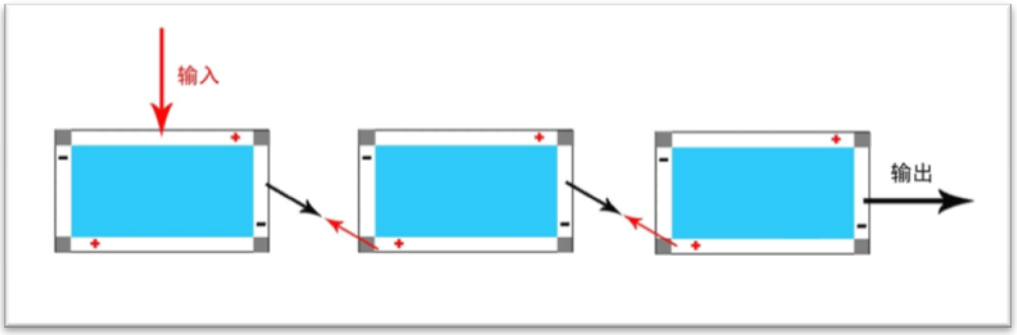


Fig. 12

4 Outgoing Quality Control Specifications

4.1 Sampling Method

(1) GB/T 2828.1-2003/ISO2859-1 : 1999, inspection level , normal inspection, single sample Ⅱ inspection

(2) AQL: Major 0.65; Minor 1.0

4.2 Inspection Conditions

The environmental conditions for test and measurement are performed as follows.

Temperature: 22±3 C

Humidity: 55±15%R.H

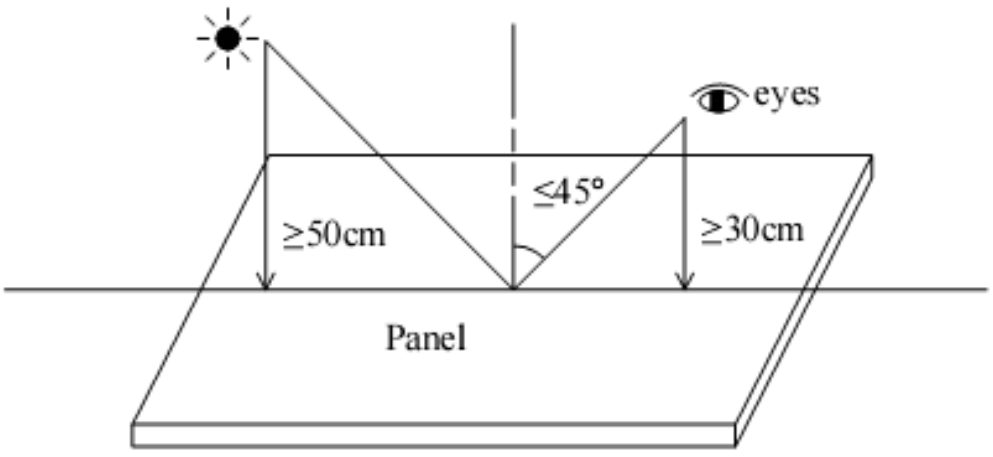
Fluorescent Lamp: 30W

Distance between the Panel & Lamp: 50cm

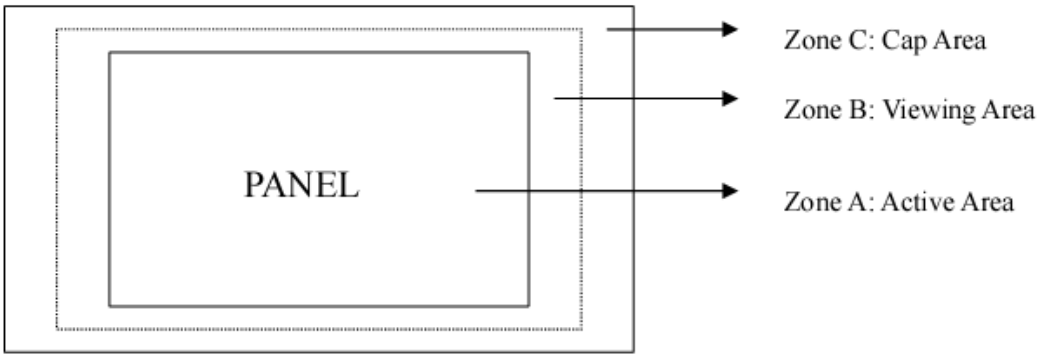
Distance between the Panel & Eyes: 30cm

Viewing angle from the vertical in each direction: 45°

(See the sketch below)

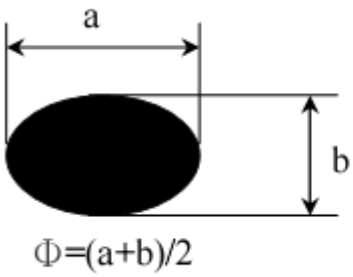


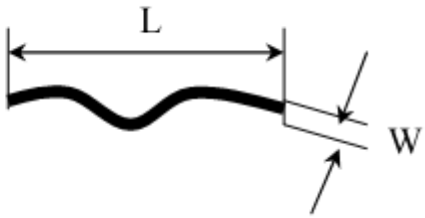
4.3 Quality Assurance Zones



4.4 Inspection Standard

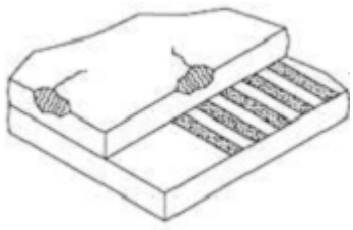
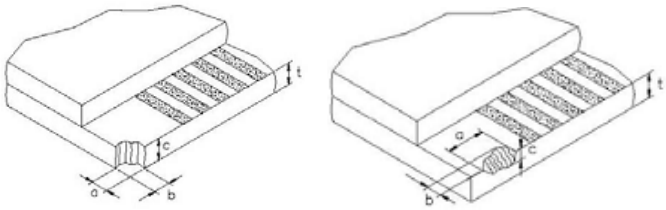
I. Definition of Φ&L&W (Unit: mm)





II. Light & Appearance Defects

No.	Item	Criteria			Classification
1	Black/White spot Dirty spot Foreign matter	Average Diameter(mm)	Pieces Permitted		Minor
			Zone A,B	Zone C	
		Φ≤0.10	ignore	ignore	
		0.10<Φ≤0.20	3		
		Φ>0.20	0		
2	No Light	Not allowable.			Major
3	Miss part icon	Not allowable.			Major

4	Short	Not allowable.	Major
5	Flicker	Not allowable.	Major
6	Abnormal color	Refer to the SPEC	Major
7	Over current	Refer to the SPEC	Major
8	Dimension Unconformity	Checking by mechanical drawing.	Major
9	Stain on surface	Stain removable by soft cloth or air blow is acceptable.	Minor
10	TCP/FPC damage	1) Crack, deep scratch, deep hole and deep pressure mark on the TCP/FPC are not acceptable. 2) Terminal lead twisted or broken is not allowable. 3) Copper exposed is not allowed by naked eye inspection.	Minor
11	Glass Crack	 Propagation crack is not acceptable.	major
12	Chips on Glass	 t= Glass thickness Accept: a ≤2.0mm or b≤ 2.0mm, c≤ t	minor

5 Precautions for operation and Storage

5.1 Precautions for Operation

(1) Since OLED panel is made of glass, do not apply any mechanical shock or impact or excessive force to it when installing the OLED module. Any strong mechanical impact due to falling dropping etc. may cause damage (breakage or cracking).

(2) The OLED surface is glass and is easily scratched. Please take most care when handing. When the surface of OLED Module is contaminated, please wipe it off gently by using moisten soft cloth with isopropyl alcohol, do not use water, ketone or aromatics. If there is saliva or water on the OLED surface, please wipe it off immediately.

(3) When handling OLED module, please be sure that the body and the tools are properly grounded. And do not touch I/O pins with bare hands or contaminate I/O pins, it will cause disconnection or defective insulation of terminals.

(4) Do not attempt to disassemble or process the OLED module.

(5) OLED module should be used under recommended operating conditions shown in the specification. Since the higher voltage leads to the shorter lifetime, be sure to use the specified operating voltage.

(6) Foggy dew, moisture condensation or water droplets deposited on surface and contact terminals will cause polarizer stain or damage, the deteriorated display quality and electrochemical reaction then leads to shorter life time and permanent damage to the module probably. Please pay attention to the environmental temperature and humidity.

(7) An afterimage is created by the difference in brightness between unused dot and the fixed dot, according to the decrease of brightness of the emitting time. Therefore, to avoid having an afterimage, the full set should be thoroughly used instead of using a fixed dot. When the fixed dot emits, an afterimage can be created.

(8) Flicker could be come out at full on display. And it disappears when frame frequency increase, but brightness decreases too.

5.2 Soldering

(1) Soldering should be performed only on the I/O terminals.

(2) Use soldering irons with proper grounding and no leakage.

(3) Iron: no higher than 300℃ and 3~4 sec during soldering.

5.3 Precautions for Storage

(1) Please store OLED module in a dark place. Avoid exposure to sunlight, the light of fluorescent lamp or any ultraviolet ray.

(2) Keep the environment temperature between 10℃ and 35℃ and the relative humidity less than 60%. Avoid high temperature and high humidity.

(3) Keep the OLED modules stored in the container when shipped from supplier before using them is recommended.

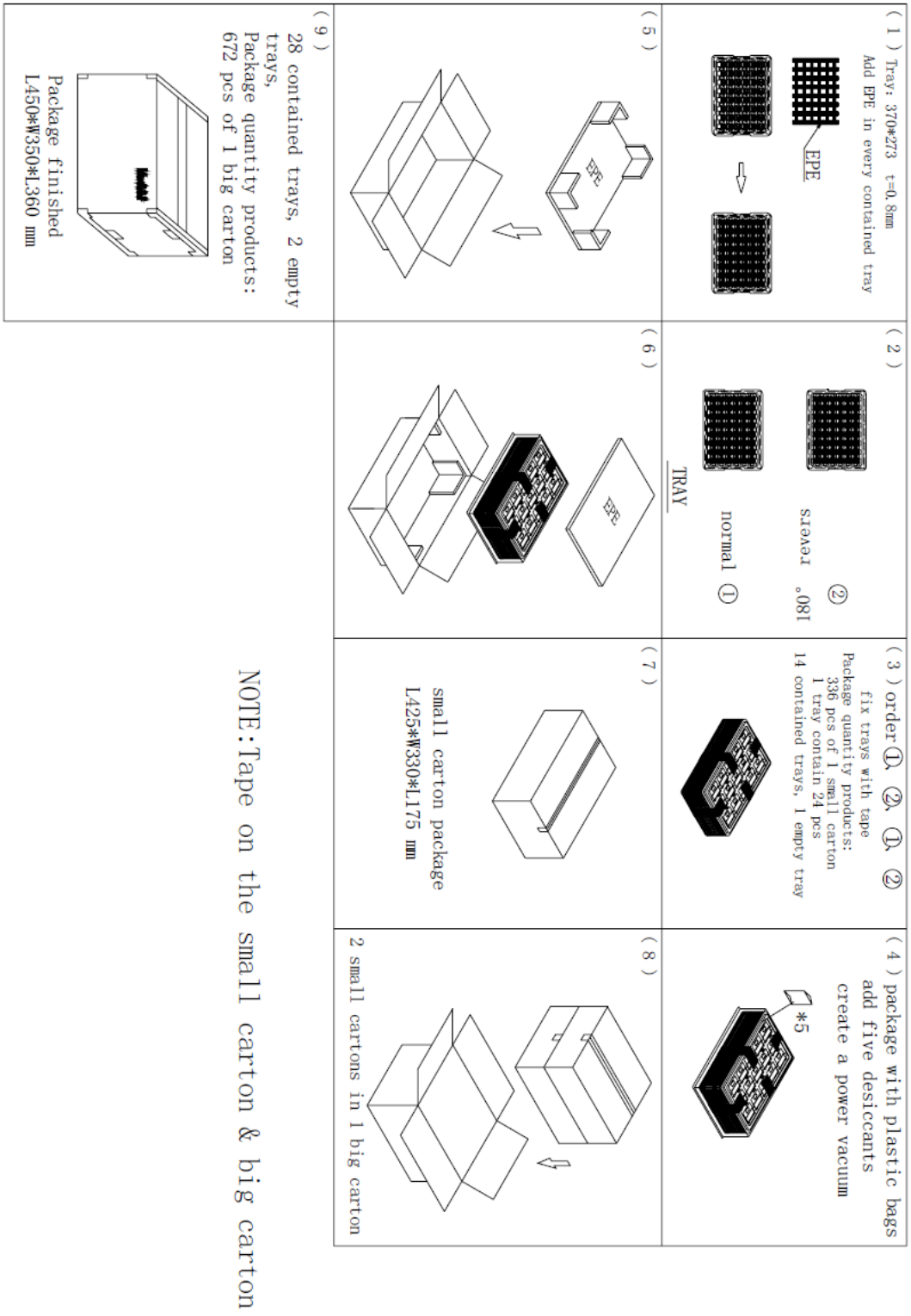
(4) Do not leave any article on the OLED module surface for an extended period of time.

5.4 Warranty period

Visionox warrants for a period of 12 months from the shipping date when stored or

used under normal condition.

6 Package Specification



7 Notice

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Revision History: 2012-04-01

Rev.	Revision Description	Rev. Date	Remark
Y01	Initial release	2010-04-01	
A01	specification	2011-12-1	
A02			