B3 6.95WSVGA TLCM Cisco_GV070WSM-T83

Product Specification Rev.P2

SUPPLIER	HEFEI BOE Optoelectronics Technology CO., LTD
FG-Code	GV070WSM-T83

ITEM	BUYER SIGNATURE	DATE

ITEM	SUPPLIER SIGNATURE	DATE
Prepared		
Reviewed		
Approved		

REVISION HISTORY

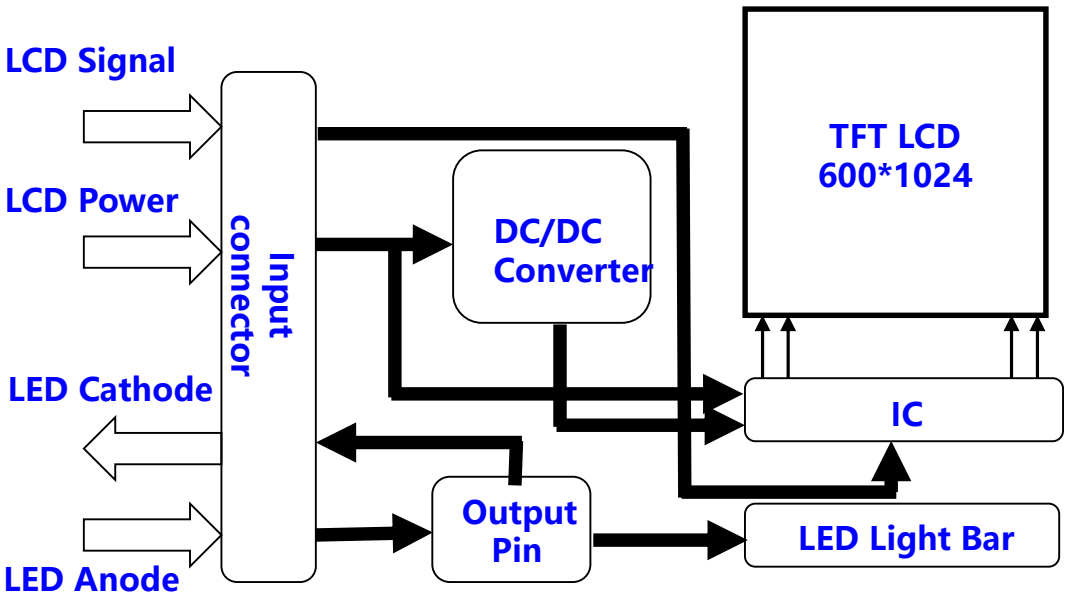
REV.	ECN NO.	DESCRIPTION OF CHANGES	DATE	PREPARED
P0	-	Initial Release	2021.06.25	Lu ZhaoBin
P1	-	Update drawing & label information	2022.01.05	Lu ZhaoBin
P2	-	Update Wy Typ. Value Update label FG-Code last 4 digits	2022.04.13	Lu ZhaoBin

Contents

1.0 GENERAL DESCRIPTION

1.0.1 Introduction

GV070WSM-T83 is a color active matrix TFT LCD module using amorphous silicon TFT's (Thin Film Transistors) as an active switching devices. This module has a 6.95inch diagonally measured active area with XGA resolutions (600 horizontal by 1024 vertical pixel array). Each pixel is divided into RED, GREEN, BLUE dots which are arranged in vertical stripe and this module can display 16.7M colors.



1.0.2 Features

- LED back-light
- 4 Lane MIPI Interface

1.0.3 Application

- Video Phone/IP Phone/Smart Key/ e-cigarettes etc.

1.0.4 General Specification

< Table 1. General Specifications >

Parameter	Specification	Unit	Remarks
Active area	89.28(H) × 152.3712(V)	mm	
Number of pixels	600(H) × 1024(V)	Pixels	
Pixel pitch	0.1488(H) × 0.1488(V)	mm	
Driver IC	JD9365DA-H3		
Pixel arrangement	Pixels RGB stripe arrangement		
Display colors	16.7M	Colors	8bit
Display mode	Normally Black		
Dimensional outline	181.18 (H) × 124.11(V) × 4.8(D) typ.	mm	
Weight	150±10g	g	
Surface treatment	HC、AF		
Back-light	Edge side, 1-LED Lighting Bar Type		24*LED
Power consumption	P_D: 0.26 Typ. 0.35Max	W	@white pattern
	P_{BL}: 0.82Typ.0.86 Max.	W	
	P_{total} :1.08 Typ. 1.21 Max.	W	@white pattern

1.0.5 General Touch Specification

< Table 2. General Touch Specifications >

Parameter	Specification	Unit	Remarks
Type of Touch Sensor	Mutual Capacitance		
Touch Structure	On Cell		
Panel Size	6.95”		
Touch panel sensor IC	GT6853		
Channel	26TX+15RX		
Interface	I2C		
Report Rate	100Hz (1 finger) 80Hz (10 fingers)		
Multi-Touch Point	5 points		
Linearity	Edge area< 2.5mm Center area< 2.0mm		
Accuracy	Edge area< 2.5mm Center area< 2.0mm		
Finger separation	2.5*6.13 mm		
TP Power Consumption	75Typ. 100 Max.	mW	@ 5 finger

2.0 ABSOLUTE MAXIMUM RATINGS

The followings are maximum values which, if exceed, may cause faulty operation or damage to the unit. The operational and non-operational maximum voltage and current values are listed in Table 3.

< Table 3. Environment Absolute Maximum Ratings> [Ta =25±2 ℃]

Parameter	Symbol	Min.	Max.	Unit	Remarks
Back-light Power Supply Voltage	HV_{DDOUT}	-	26	V	Ta = 25 ℃
Back-light LED Current	I_{HVDD}	-	33	mA	
Back-light LED Reverse Voltage	V_R	-	40	V	
Operating Temperature	T_{OP}	-20	70	℃	Environment Temperature
Storage Temperature	T_{ST}	-30	80	℃	
Operating Ambient Humidity	Hop	10	90	%RH	
Storage Humidity	Hst	10	90	%RH	
Heat Release Requirement	Trls	15		℃	仅适用于Q/Single/FOG出货项目

3.0 ELECTRICAL SPECIFICATIONS

3.0.1 TFT LCD Module

< Table 4. LCD Module Electrical Specifications > [Ta =25±2 ℃]

Parameter	Symbol	Values			Unit	Notes
		Min	Typ	Max		
Power Supply Input Voltage	V_{DD}	3.0	3.3	3.6	V	Note 1
Power Supply Current	I_{DD}	-	76	135	mA	
Positive-going Input Threshold Voltage	V_{IT+}	-		+70	mV	Vcom = 0.2V typ.
Negative-going Input Threshold Voltage	V_{IT-}	-70		-	mV	
Differential input common mode voltage	V_{com}		0.2		V	V_{IH}=130mV, V_{IL}=-130mV

Notes : 1. The supply voltage is measured and specified at the interface connector of LCM.
The current draw and power consumption specified is for 3.3V at 25 ℃
Max value at White Pattern

3.0.2 Back-light Unit

< Table 5. LED Driving guideline specifications > Ta=25+/-2°C

Parameter		Min.	Typ.	Max.	Unit	Remarks
Power supply voltage for Back light	V_{LED}	24	24.8	26	V	
Power supply Current for Back light	I_{LED}	-	33	-	mA	
Power supply for Back light	P_{LED}	0.79	0.82	0.86	W	Note 1

Notes : 1. Calculator Value for reference $I_{LED} \times V_{LED} = P_{LED}$

2. The LED Life-time define as the estimated time to 50% degradation of initial luminous under the condition of the ambient temperature of 25℃.

4.0 INTERFACE CONNECTION.

4.0.1 Electrical Interface Connection

The FPC is for Host connector: TF31-40S-0.5SH(800).
The FPC pin assignments are listed in Table 6 .

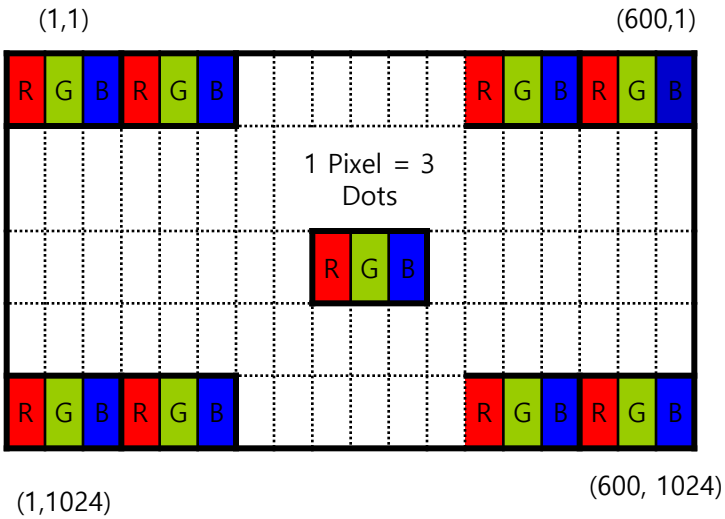
<Table 6. Pin Assignments for the Interface Connector>

Pin No.	Symbol	Description	remark
1	VLED+	Anode for light bar	
2	VLED+	Anode for light bar	
3	NC	No connection	
4	FB1	Cathode for light bar	
5	FB2	Cathode for light bar	
6	FB3	Cathode for light bar	
7	NC	No connection	
8	TR_RST	TP Reset Pin	
9	TP_ATTN	Interrupt Pin	
10	TP_SDA	I2C SDA	
11	TP_SCL	I2C CLK	
12	GND	Ground	
13	TP_VDDIO	input for TP	
14	TP_AVDD	input for TP	
15	GND	Ground	
16	RESET	LCD reset	
17	LEDPWM	PWM control signal for LED driver	
18	NC	No connection	
19	NC	No connection	
20	NC	No connection	
21	GND	Ground	
22	VDD3V3	input for LCM	
23	VDD3V3	input for LCM	
24	GND	Ground	
25	D0N	MIPI Differential Data Input	

Pin No.	Symbol	Description	remark
26	D0P	MIPI Differential Data Input	
27	GND	Ground	
28	D1N	MIPI Differential Data Input	
29	D1P	MIPI Differential Data Input	
30	GND	Ground	
31	CLKN	MIPI Differential Clock Input	
32	CLKP	MIPI Differential Clock Input	
33	GND	Ground	
34	D2N	MIPI Differential Data Input	
35	D2P	MIPI Differential Data Input	
36	GND	Ground	
37	D3N	MIPI Differential Data Input	
38	D3P	MIPI Differential Data Input	
39	GND	Ground	
40	NC	No Connection	

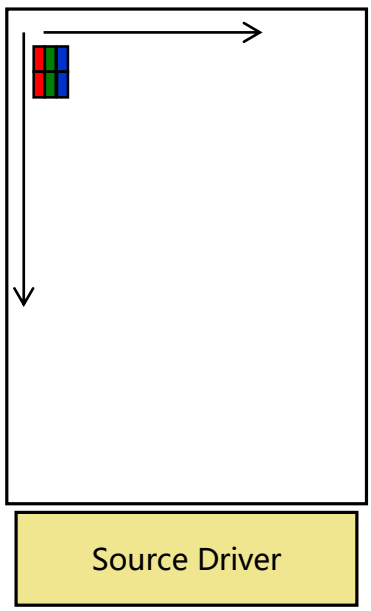
4.0.2 Data Input Format

Figure 1. Pixel Format



Display Position of Input Data (V-H)

Figure 2. Scan direction



5.0 SIGNAL TIMING SPECIFICATION

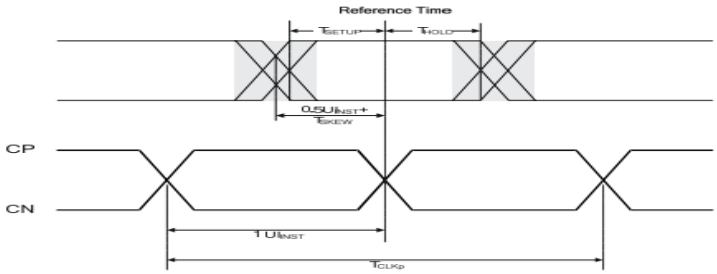
<Table 7. SIGNAL TIMING >

Item			Symbol	min	typ	max	UNIT
LCD	Frame Rate		-	-	60	-	Hz
	Pixels Rate		-	-	48.05	-	MHz
Timing	DCLK	Frequency	fCLK	96.13	144.14	216.69	MHz
		Period	Tclk	-	6.94	-	ns
	Horizontal	Horizontal total time	tHP	-	770	-	t_{CLK}
		Horizontal Active time	tHadr	600			t_{CLK}
		Horizontal Pulse Width	tHsync	-	10	-	t_{CLK}
		Horizontal Back Porch	tHBP	-	80	-	t_{CLK}
		Horizontal Front Porch	tHFP	-	80	-	t_{CLK}
	Vertical	Vertical total time	tvp	-	1040	-	t_H
		Vertical Active time	tVadr	1024			t_H
		Vertical Pulse Width	tVsync	-	2	-	t_H
		Vertical Back Porch	tVBP	-	6	-	t_H
		Vertical Front Porch	tVFP	-	8	-	t_H
Bit Rate			TX SPD (Mbps)	192	288	433	Mbps
Lane				-	4	-	Lane

6.0 MIPI Input Signal SPECIFICATION

<Table 8. MIPI Input Signal >

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
IOVCC	V_{IN}	Interface Supply Voltage	1.65	-	3.6	
Input high voltage	V_{IH}	IOVCC= 1.65 ~ 3.3V VCIP= 2.5 ~ 3.3V VCI= 2.5 ~ 3.3V	0.7 $_{IOVCC}$	-	IOVCC	V
Input low voltage	V_{IL}		0	-	0.3 $_{IOVCC}$	V
VPP	V_{IH} V_{IL}	VPP	7.25V	7.5V	7.75V	V
Output high voltage (SDO, LEDPWM)	V_{OH1}	I_{OH} = -1.0 mA	0.8 $_{IOVCC}$	-	IOVCC	V
Output low voltage (SDO, LEDPWM)	V_{OL1}	IOVCC= 1.65 ~ 2.4V I_{OL} = 1.0 mA	0	-	0.2 $_{IOVCC}$	V
Logic High level input current	I_{IH}	VSYNC, HSYNC	-	-	1	µA
		RESX, DCX_SCL, CSX, RDX, WRX_SCL	-	-	1	µA
	I_{IHD}	DB[23…0], SDI, DCX	-	-	1	µA
		DB[23…0]	-	-	1	µA
Logic Low level input current	I_{IL}	VSYNC, HSYNC	-1	-		µA
		RESX, DCX, CSX, RDX, WRX_SCL	-1	-		µA
	I_{ILD}	DB[23…0], SDI, DCX	-1	-		µA
		DB[23…0]	-1	-		µA



<Table 9 . Clock Time>

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Data to Clock Setup Time [RX]	$T_{SETUP[RX]}$	0.15	-	-	UIINST	1
Clock to Data Hold Time [RX]	$T_{HOLD[RX]}$	0.15	-	-	UIINST	1

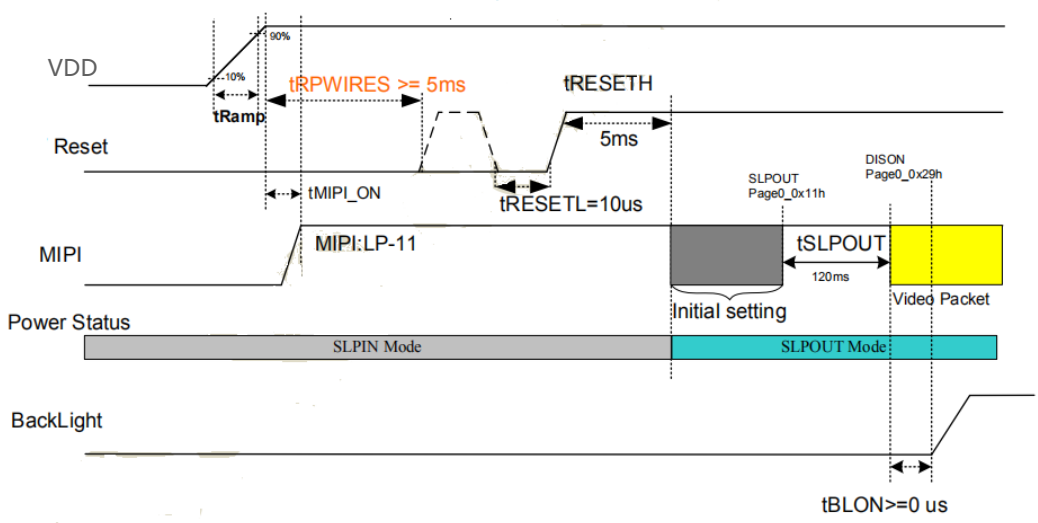
7.0 POWER SEQUENCE

To prevent a latch-up or DC operation of the LCD module, the power on/off sequence shall be as shown in below

7.0 .1 POWER OFF SEQUENCE

<Table 10. POWER OFF SEQUENCE>

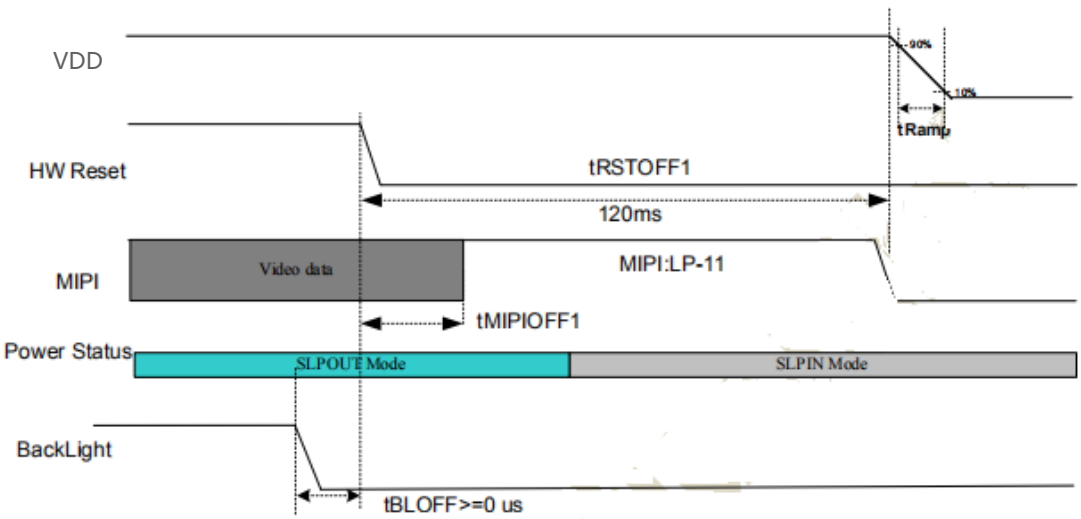
Symbol	Min	Typ	Max	Unit
tRamp	-	No limit	-	us
tON1	0	-	-	ms
tMIPI-ON	0	-	tRPWIRES	ms
tRPWIRES	5	-	-	ms
tRESETL	10	-	-	ms
tRESETH	5	-	-	ms
tSLPOUT	120	-	-	ms
tBLON	0	-	-	ms



7.0 .2 POWER OFF SEQUENCE

<Table 11. POWER OFF SEQUENCE>

Symbol	Min	Typ	Max	Unit
tRamp	-	No limit	-	us
tPWOFF1	0	-	-	ms
tMIPIOFF1	0	-	-	ms
tRSTOFF1	120	-	-	ms
tRESETL	10	-	-	ms
tBLOFF	0	-	-	ms



8.0 OPTICAL SPECIFICATION

8.0.1 Overview

The test of view angle range shall be measured in a dark room (ambient luminance ≤ 1lux and temperature = 25±2℃) with the equipment of Luminance meter system (Goniometer system and TOPCON CS2000/CA310) and test unit shall be located at an approximate distance 50cm from the LCD surface at a viewing angle of θ and Φ equal to 0°. We refer to θØ=0 (=θ3) as the 3 o'clock direction (the "right"), θ Ø=90 (= θ12) as the 12 o'clock direction ("upward"), θ Ø=180 (= θ9) as the 9 o'clock direction ("left") and θ Ø=270(= θ6) as the 6 o'clock direction ("bottom"). While scanning θ and/or Ø, the center of the measuring spot on the Display surface shall stay fixed. The luminance, color and uniformity (etc) should be tested by CS2000/CA310. The backlight should be operating for 10 minutes prior to measurement. VDD shall be 3.3 ± 0.3V at 25°C. Optimum viewing angle direction is 6 'clock

<Table 12. Optical Specifications>

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit	Remark
Viewing Angle range	Horizontal	Θ_3	CR > 10	80	85	-	Deg.	Note 1
		Θ_9		80	85	-	Deg.	
	Vertical	Θ_{12}		80	85	-	Deg.	
		Θ_6		80	85	-	Deg.	
Luminance Contrast ratio		CR	Θ = 0°	1000	1200	-		Note 2
Luminance of White	Center	Y_w	Θ = 0°	320	350	-	cd/m^2	Note 3
White Luminance uniformity	9 Points or 5 Points	ΔY9 or ΔY5		-	80	-	%	Note 4
Color Gamut	NTSC	CIE1931	Θ = 0°	45	50	-	%	Note 5
Reproduction of color	White	Wx	Θ = 0°	Typ -0.04	0.2913	Typ +0.04		
		Wy			0.3216			
Response Time		Tr+Td	Ta= 25° C Θ = 0°	-	30	35	ms	Note 6

Notes : 1. Viewing angle is the angle at which the contrast ratio is greater than 10. The viewing angles are determined for the horizontal or 3, 9 o'clock direction and the vertical or 6, 12 o'clock direction with respect to the optical axis which is normal to the LCD surface (see FIGURE 1).

2. Contrast measurements shall be made at viewing angle of Θ= 0 and at the center of the LCD surface. Luminance shall be measured with all pixels in the view field set first to white, then to the dark (black) state . (see FIGURE 1) Luminance Contrast Ratio (CR) is defined mathematically.

$$CR = \frac{\text{Luminance when displaying a white raster}}{\text{Luminance when displaying a black raster}}$$

3. Luminance of white is defined as luminance values of center of the LCD surface. Luminance shall be measured with all pixels in the view field set first to white. This measurement shall be taken at the locations shown in FIGURE 2 for a total of the measurements per display. The luminance is measured by CS2000/CA310 when the LED current is set at 60mA.

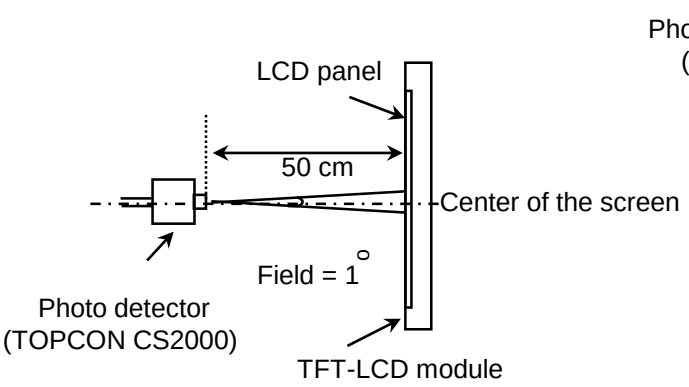
4. The White luminance uniformity on LCD surface is then expressed as : ΔY = Minimum Luminance of 9 Points or 5 points / Maximum Luminance of 9 Points or 5 points(See FIGURE 2).

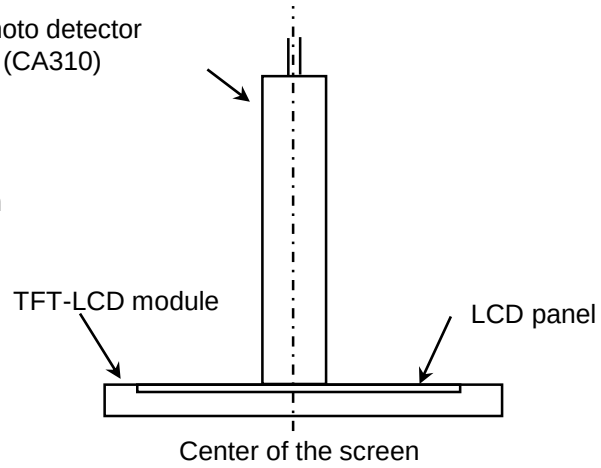
5. The color chromaticity coordinates specified in Table 5. shall be calculated from the spectral data measured with all pixels first in red, green, blue and white. Measurements shall be made at the center of the panel.

6. The electro-optical response time measurements shall be made as FIGURE 3 by switching the "data" input signal ON and OFF. The times needed for the luminance to change from 10% to 90% is Tr, and 90% to 10% is Td.

8.0.2 Optical measurements

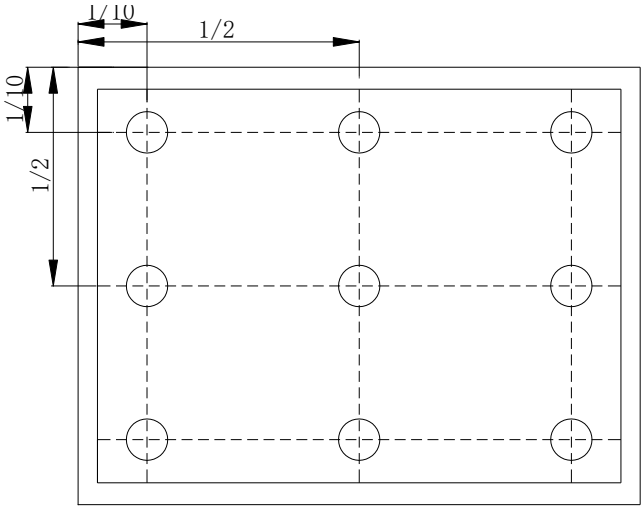
Figure 1. Measurement Set Up





View angel range, uniformity, etc. measurement setup Flicker, measurement setup

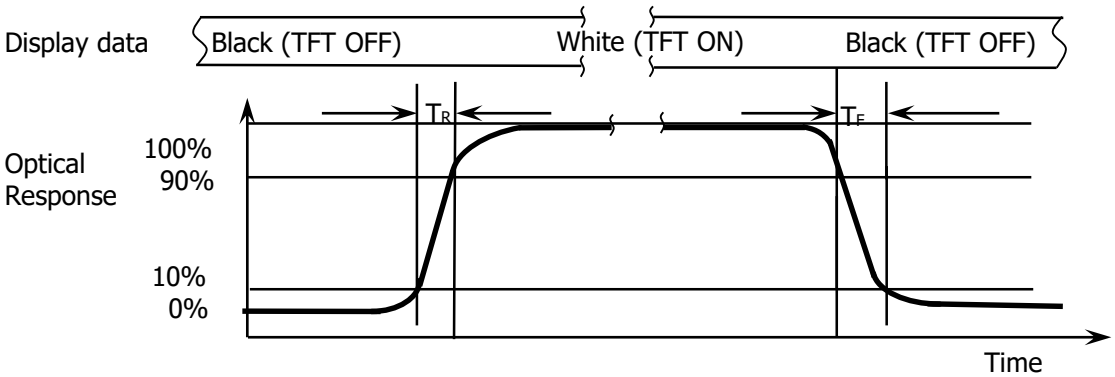
Figure 2. White Luminance and Uniformity Measurement Locations (9 points)



Luminance of white is defined as luminance values of center of the LCD surface. Luminance shall be measured with all pixels in the view field set first to white. This measurement shall be taken at the locations shown in FIGURE 2 for a total of the measurements per display.

The White luminance uniformity on LCD surface is then expressed as : ΔY9 = Minimum Luminance of 9 points / Maximum Luminance of 9points (see FIGURE 2).

Figure 3. Response Time Testing



The electro-optical response time measurements shall be made as shown in FIGURE 3 by switching the “data” input signal ON and OFF. The times needed for the luminance to change from 10% to 90% is Tr and 90% to 10% is Td.

9.0 MECHANICAL OUTLINE DIMENSION

Figure 1. TFT-LCD Module Outline Dimension (Front View)

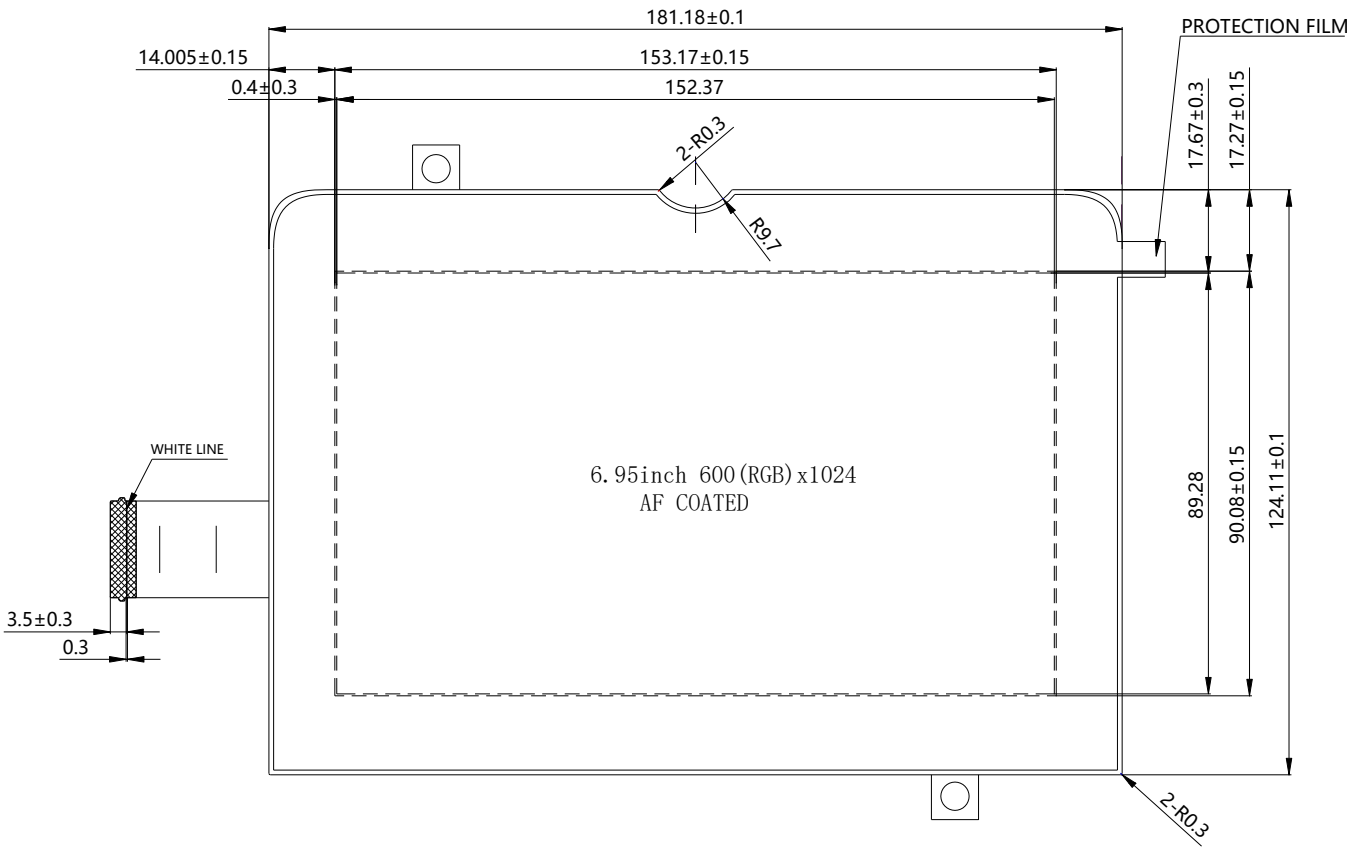
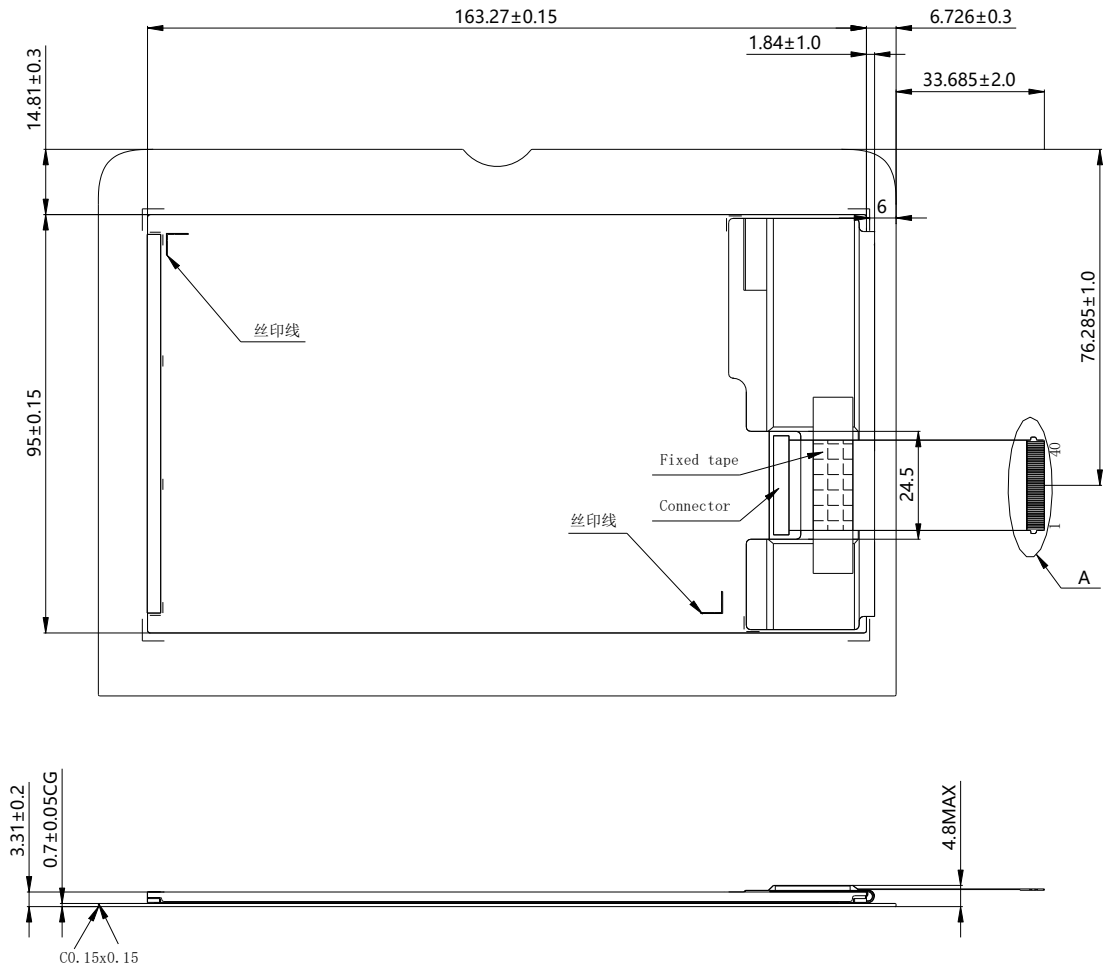
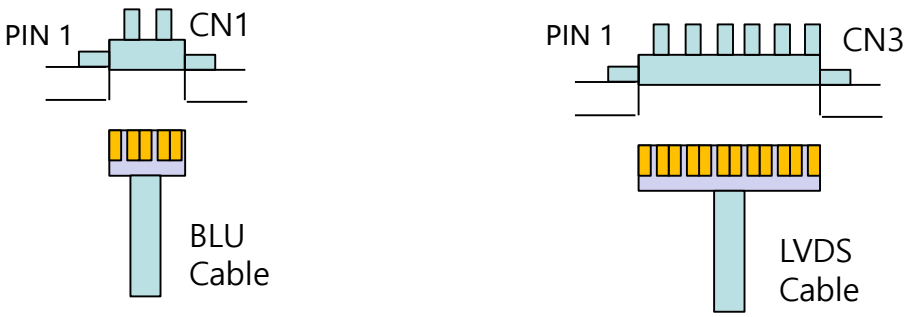


Figure 2. TFT-LCD Module Outline Dimensions (Rear view)



APP.: LVDS &BLU Cable Lead Direction



10.0 RELIABILITY TEST

The Reliability test items and its conditions are shown in below.

<Table 13. Reliability test>

No	Test Items	Conditions	Remark
1	High temperature storage test	Ta = 80℃, 240 hrs	恢复常温后2hr检测
2	Low temperature storage test	Ta = -30 ℃, 240 hrs	
3	High temperature operation test	Ta = 70℃, 240 hrs	
4	Low temperature operation test	Ta = -20 ℃, 240 hrs	
5	High temperature & high humidity operation test	Ta = 60 ℃, 90%RH, 240 hrs	
6	Thermal shock	Ta = -30 ℃ ↔ 80℃ (0.5 hr), 100 cycle	Non-operation
7	Image Sticking	5*5 Pattern, 1hrs 25℃±2℃ check pattern Gray 127, after 5 mins, the mura must be disappeared	
8	ESD test	Air Voltage:±8KV Contact Voltage:±4KV R: 330Ω C: 150pF 6 time	
9	Vibration Test	1~200Hz，1.47G，Random X,Y,Z，30 min	

Note：After the reliability test, the product only guarantee function normally without any fatal defect (non-display, line defect, abormal display etc). All the cosmetic specification is judged before the reliablity test.

11.0 Precautions

Please pay attention to the followings when you use this TFT LCD Panel.

11.1 Mounting Precautions

(1) Use fingerstalls with soft gloves in order to keep display clean during the incoming inspection and assembly process.

(2) You must mount a module using specified mounting holes (Details refer to the drawings).

(3) Please make sure to avoid external forces applied to the Source PCB or FPC and D-IC during the process of handling or assembling. If not, It causes panel damage or malfunction.

(4) Note that polarizers are very fragile and could be easily damaged. Do not touch, push or rub the exposed polarizers with glass, tweezers or anything harder than HB pencil lead. And please do not rub with dust clothes with chemical treatment.

(5) Do not pull or fold the source D-IC which connect the source PCB or FPC and the panel.

Do not pull or fold the LED wire.

(6) After removing the protective film, when the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks with alcohol or purified water.

Do not strong polar solvent because they cause chemical damage to the polarizer.

(7) Wipe off saliva or water drops as soon as possible. Their long time contact with polarizer causes deformations and color fading.

(8) Protection film for polarizer on the module shall be slowly peeled off just before use so that the electrostatic charge can be minimized.

(9) Since the LCD is made of glass, do not apply strong mechanical impact or static load onto it. Handling with care since shock, vibration, and careless handling may seriously affect the product. If it falls from a high place or receives a strong shock, the glass may be broken.

(10) Do not disassemble the module.

(11) To determine the optimum mounting angle, refer to the viewing angle range in the specification for each model.

(12) If the customer's set presses the main parts of the LCD, the LCD may show the abnormal display. But this phenomenon does not mean the malfunction of the LCD and should be pressed by the way of mutual agreement.

(13)Do not drop water or any chemicals onto the LCD’s surface.

11.2 Operating Precautions

- (1) Be careful for condensation at sudden temperature change. Condensation makes damage to polarizer or electrical contacted parts. And after fading condensation, smear or spot will occur.
- (2) Module has high frequency circuits. Sufficient suppression to the electromagnetic interference shall be done by system manufacturers. Grounding and shielding methods may be important to minimized the interference.
- (3) The electrochemical reaction caused by DC voltage will lead to LCD degradation, so DC drive should be avoided.
- (4) The LCD modules use C-MOS LSI drivers, so customers are recommended that any unused input terminal would be connected to Vdd or Vss, do not input any signals before power is turn on, and ground you body, work/assembly area, assembly equipments to protect against static electricity.
- (5) Do not exceed the absolute maximum rating value. (supply voltage variation, input voltage variation, variation in part contents and environmental temperature, and so on) Otherwise the Module may be damaged.
- (6) Design the length of cable to connect between the connector for back-light and the converter as short as possible and the shorter cable shall be connected directly.
The longer cable between that of back-light and that of converter may cause the luminance of LED to lower and need a higher startup voltage(Vs).
- (7) Connectors are precise devices for connecting PCB and transmitting electrical signals. Operators should insert and unplug MDL in parallel when assembling MDL.
- (8) Do not connect or disconnect the cable to/ from the module at the "Power On" condition.
- (9) When the module is operating, do not lose CLK, ENAB signals. If any one these signals is lost, the LCD panel would be damaged.
- (10) Obey the supply voltage sequence. If wrong sequence is applied, the module would be damaged.
- (11) Do not re-adjust variable resistor or switch etc.

11.3 Electrostatic Discharge Control

- (1) Since a module is composed of electronic circuits, it is not strong to electrostatic discharge. Make certain that treatment persons are connected to ground through wrist band etc. And don’t touch interface pin directly. Keep products as far away from static electricity as possible.
- (2) Avoid the use work clothing made of synthetic fibers. We recommend cotton clothing or other conductivity-treated fibers.

11.4 Precautions for Strong Light Exposure

It is not allowed to store or run directly in strong light or in high temperature and humidity for a long time; Strong light exposure causes degradation of polarizer and color filter.

11.5 Storage Precautions

When storing modules as spares for a long time, the following precautions are necessary.

•(1) The polarizer surface should not come in contact with any other object.
It is recommended that they be stored in the container in which they were shipped.
Temperature : 5 ~ 40 ℃

•(2) Humidity : 35 ~ 75 %RH

•(3) Period : 6 months

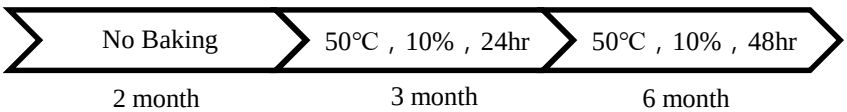
•(4) Control of ventilation and temperature is necessary.

•(5) Please make sure to protect the product from strong light exposure, water or moisture.
Be careful for condensation.

•(6) Store in a polyethylene bag with sealed so as not to enter fresh air outside in it.

•(7)Do not store the LCD near organic solvents or corrosive gasses.

•(8) Please keep the Modules/OC/FOG at a circumstance shown below Fig.



11.6 Precautions for Protection Film

• (1) Remove the protective film slowly, keeping the removing direction approximate 30-degree not vertical from panel surface, If possible, under ESD control device like ion blower, and the humidity of working room should be kept over 50%RH to reduce the risk of static charge.

• (2) In handling the LCD, wear non-charged material gloves. And the conducting wrist to the earth and the conducting shoes to the earth are necessary.

11.7 Appropriate Condition for Display

•(1) Normal operating condition
- Temperature: 0 ~ 40℃
- Operating Ambient Humidity : 10 ~ 90 %
- Display pattern: dynamic pattern (Real display)
- Suitable operating time: under XX hours a day.（ Please contract BOE in advance for 7*24hrs or more than suggested Operating time
-Long-term lighting products recommended regular shutdown

•(2) Special operating condition

If the product will be used in extreme conditions such as high temperature, humidity, display patterns or 7*24hrs operation time etc.., It is strongly recommended to contact BOE for Application engineering advice. Otherwise, its reliability and function may not be guaranteed.

•(3)Black image or moving image is strongly recommended as a screen save.

- (4) Lifetime in this spec. is guaranteed only when commercial display is used according to operating usages.
- (5) Please contract BOE in advance when you want to switch between portrait and landscape screen
- (6) Please contact BOE in advance for outdoor operation.
- (7) Please contact BOE in advance when you display the same pattern for a long time.
- (8) If the Module keeps displaying the same pattern for a long period of time, the image may be "sticked" to the screen. To avoid image sticking, it is recommended to use a screen saver.
- (9) Do not exceed the absolute maximum rating value. (supply voltage variation, input voltage variation, variation in part contents and environmental temperature, and so on) Otherwise the Module may be damaged.
- (10) Dew drop atmosphere should be avoided.
- (11) The storage room should be equipped with a good ventilation facility and avoid to expose to corrosive gas , which has a temperature controlling system.
- (12) When expose to drastic fluctuation of temperature (hot to cold or cold to hot ）,the LCD may be affected; Specifically, drastic temperature fluctuation from cold to hot ,produces dew on the LCD's surface which may affect the operation of the polarizer and the LCD.
- (13) Response time will be extremely delayed at lower temperature than the operating temperature range and on the other hand at higher temperature LCD may turn black at temperature above its operational range. However those phenomena do not mean malfunction or out of order with the LCD. The LCD will revert to normal operation once the temperature returns to the recommended temperature range for normal operation

11.8 Others

A. LC Leak

- If the liquid crystal material leaks from the panel, it is recommended to wash the LC with acetone or ethanol and then burn it.
- In case of contact with hands, skin or clothes, it has to be washed away thoroughly with soap.
- If LC in mouth, mouth need to be washed, drink plenty of water to induce vomiting and follow medical advice.
- If LC touch eyes, eyes need to be washed with running water at least 15 minutes.

B. Rework

- When returning the module for repair or etc., Please pack the module not to be broken. We recommend to use the original shipping packages.

12.0 LABEL

(1) Product label

2 LCDMA3101149AD096
3 GV101WUM-LS0-DSP0
4 GV101WUM-LS0

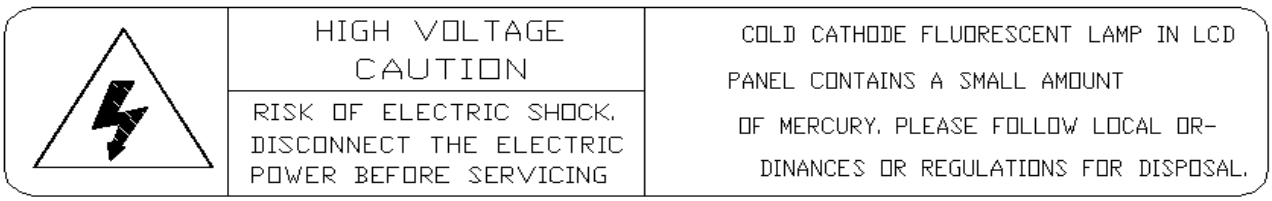
1

喷码格式
1.MDL ID对应二维码
2.MDL ID
3.FG CODE
4.客户料号 43-100340-01

MDL ID编码规则

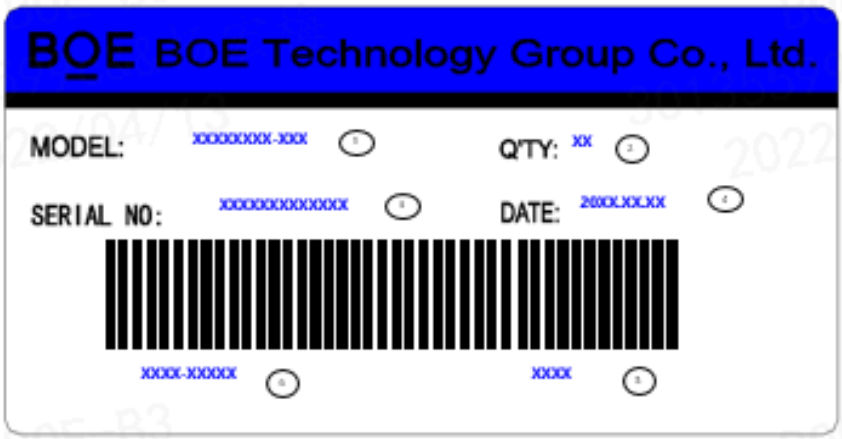
序列号	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
代码	X	X	X	3	X	X	X	3	G	P	0	X	X	X	X	X	X
描述	GBN代码		等级	B3	年	月	日	FG Code后四位				序列号					

(2) High voltage caution label



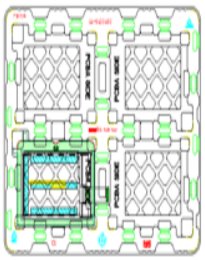
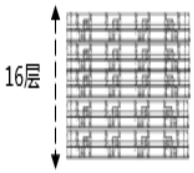
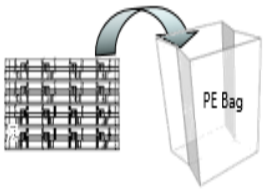
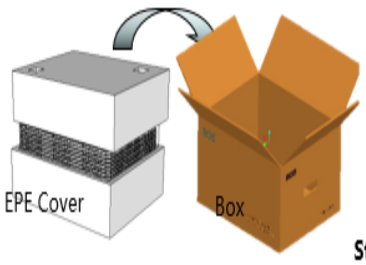
(3) Box label

Label Size: 110 mm (L) × 56 mm (W)

Item	Box Label
Picture	
代号 说明	序列号标注部分需打印, 说明如下: 1. FG-CODE(前12位): GV070WSM-T83 2. 产品数量: 60 3. Box ID 4. 包装日期 5. FG-Code后四位:3GP0 6. 客户端物料号:43-100340-01
编码 规则	

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13
Code	S	L	S	5	1	2	3	D	0	0	0	6	8
Description	Products/GBN		Grade	Line	Year		Month	Revision Code	Serial Number				

13.0 PACKING INFORMATION

将TLCM (CG朝下，背光朝上)放入产品槽； CG下面放置1pcs EPE PAD； 4 TLCM/2 EPE PAD/Tray；	将盛装TLCM的Tray叠码15层，然后在整摞上面放1个空Tray； 60 TLCM/30 EPE PAD/16 Tray；	将16层 Tray平放入一PE Bag中； 60 TLCM/ PE Bag；
 Step 1	 Step 2	 Step 3
将1包产品上下各扣一个EPE Cover，然后放入Inner Box； 60 TLCM/2 EPE Cover/Inner Box；	采用“一”字形封箱方式，对Inner Box进行封箱，并在Box的Mark处粘贴相应标签； 60 TLCM/Inner Box；	-.按“田”字型对Inner Box进行四层码拍，每层4箱，水平两根、竖直四根纸护角； -. Pallet外进行缠膜包装; 容量:960 TLCM/16 Inner Box/Pallet
 Step 4	 Step 5	 Step 6