



深圳晶心石英技术有限公司

Shenzhen quartz crystal heart Technology Ltd.

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SPECIFICATION FOR APPROVAL

PRODUCT : LED BOOST VOLTAGE
CUSTOMER :
CUSTOMER P/N. :
JX P/N : JX-08D05 V1.8
SAMPLES :
DATE : 2015-4-25

APPROVED BY	NOTE
CUSTOMER SIGNATURE (S)	

ISSUED BY _____

CHECKED BY _____

APPROVED BY _____



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1. GENERAL DESCRIPTION

This is 13.3/27 inch LED liquid crystal back light driver

2. Applicable model

LM220WE5// MT190AW02//LQ215M1L //MT185GW01 //MT215DW01 //V236H1-K1
V236H1-LE2 //M215H3-LA1// M156B3-LA1//LM230WF5 //M185XW01// M215HW01
M240HW01// M185B3-L01// M236H3-L01// M220Z3-L07// M215H3-L01
LP154WP3// LP171WU6

3. This is section of 6/8 group LED, uses in 13.3/27 inch LCD back lights specially the driverSUITABLE LOAD

13.3 寸/24 寸 TFT LCD Module:

ABSOLUIE MAXIMUM RATING LF ENVIRONMENT

Temperature operating : 0⁰C -- 50⁰C

Temperature storage :-20⁰C -- 60⁰C

Humidity operating :10% -- 80RH

Humidity storage :10% -- 90RH

4. INPUT ELECTRICAL CHARACTERISTICS

No.	PARAMETER	Symbol	MIN	TYPE	MAX	Unit
1	INPUT VOLTAGE	Vin	7	12.0	24	V
2	INPUT CURRENT	Iin	0.20	0.6	2.0	A
3	INPUT POWER	Pin	----	20	----	W
4	BRIGHTNESS VOLTAGE	Vbri	0	---	5	V
5	CONTROL VOLTAGE		Enable Von=5V		Disable Voff=0V	



6.OUTPUT ELECTRICAL CHARACTERISTICS

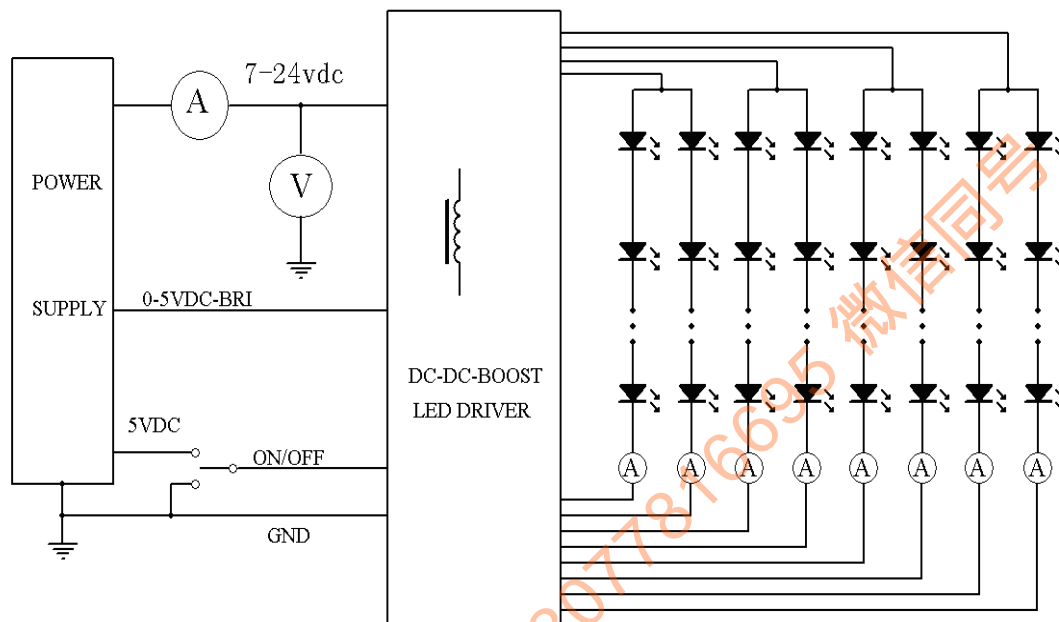
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYPE	MAX	UNIT
CURRENT	I _{out}	V _{in} =12V; V _{on} =5V; V _{brit} =0	60	220	450	mA
CURRENT	I _{out}	V _{in} =12V; V _{on} =5V; V _{brit} =0				mA
VOLTAGE	V _{out} (DC)	V _{in} =12V; V _{on} =5V; V _{brit} =0V; 25°C	24		63	V
FREQUENCY	F _{pwm}	V _{in} =12V; V _{on} =5V; V _{brit} =0V;	90	100	110	kHz
Efficiency	η	V _{in} =12V; V _{on} =5V; V _{brit} =0V;	---	89	---	%

说明：输出电流大小可以根据屏规格定制。

7. PIN ASSIGNMENTS

INPUT: CN1			
PIN	SYMBOL	DESCRIPTION	VOLTAGE
1.2	V _{in}	Supply voltage	7—24
3	V _{on/off}	Standby/operation	On=5V Off=0V
4	V _{brit}	Dimming control	0V-3.3V
5.6	Gnd	Ground	
OUTPUT: J1/ J1+J1/J2/J3/J4/J4+J4/J5+J6/J7+J8/J9			
PIN	Applicable model		Socket specifications
J1	LM220WE5//MT190AW02		10P/0.5mm
J1+J1	LQ215M1L//MT185GW01//MT215DW01		10P/0.5mm
J2	V236H1-K1/V236H1-LE2/M215H3-LA1/M156B3-LA1		12P/0.5mm
J3	LM230WF5		6P/1.0mm
J4	M185XW01		10P/0.5mm
J4+J4	M215HW01/M240HW01		10P/0.5mm
J5+J6	M185B3-L01/M236H3-L01		12P/0.5mm
J7+J8	M220Z3-L07/M215H3-L01		10P/0.5mm
J9	LP154WP3/LP171WU6		9P/0.5mm

8. Test Circuit Diagram



MEASUREMENT EQUIPMENT

POWER
SUPPLY

KPS-3030DQ

(V)

OSC
illoscope

TDS-054

(F)

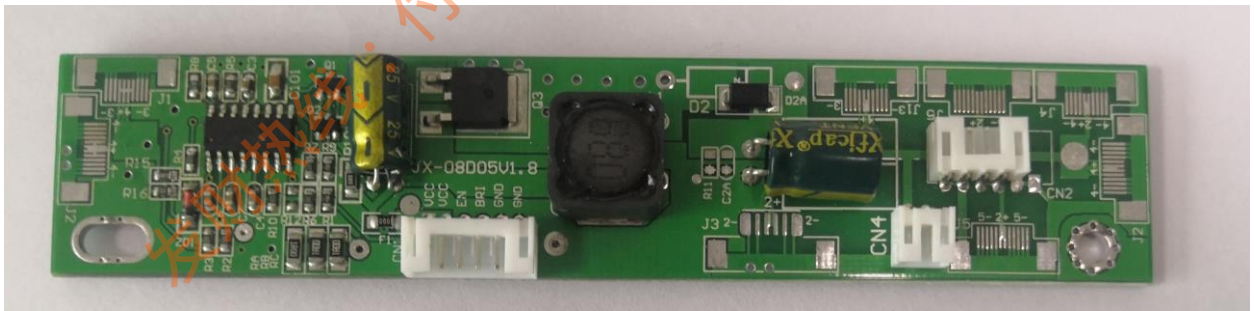
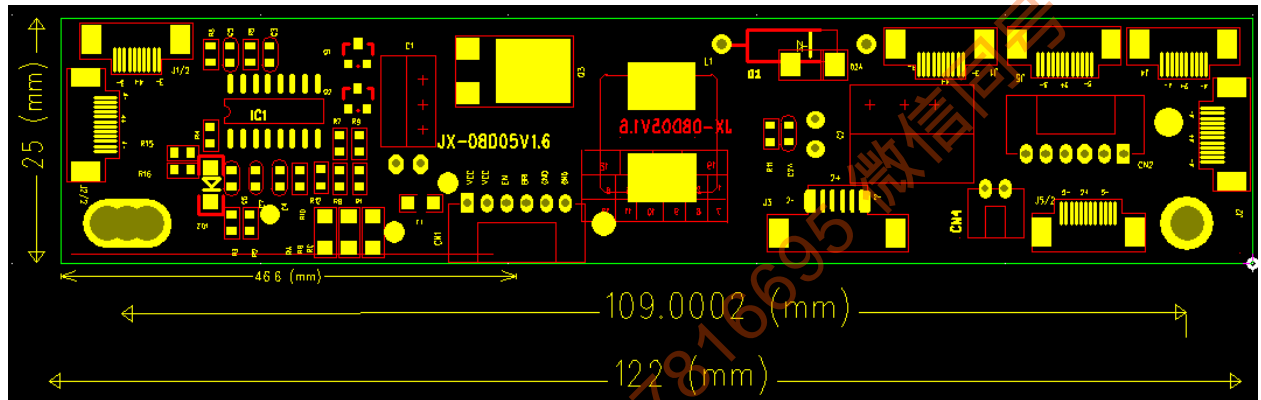
CURRENT
METER

HLUKE-45

(A)

9. MECHANICAL DRAWINGS

9.1 P.W.B. Unit : mm Tolerance: $\pm 0.5\text{mm}$





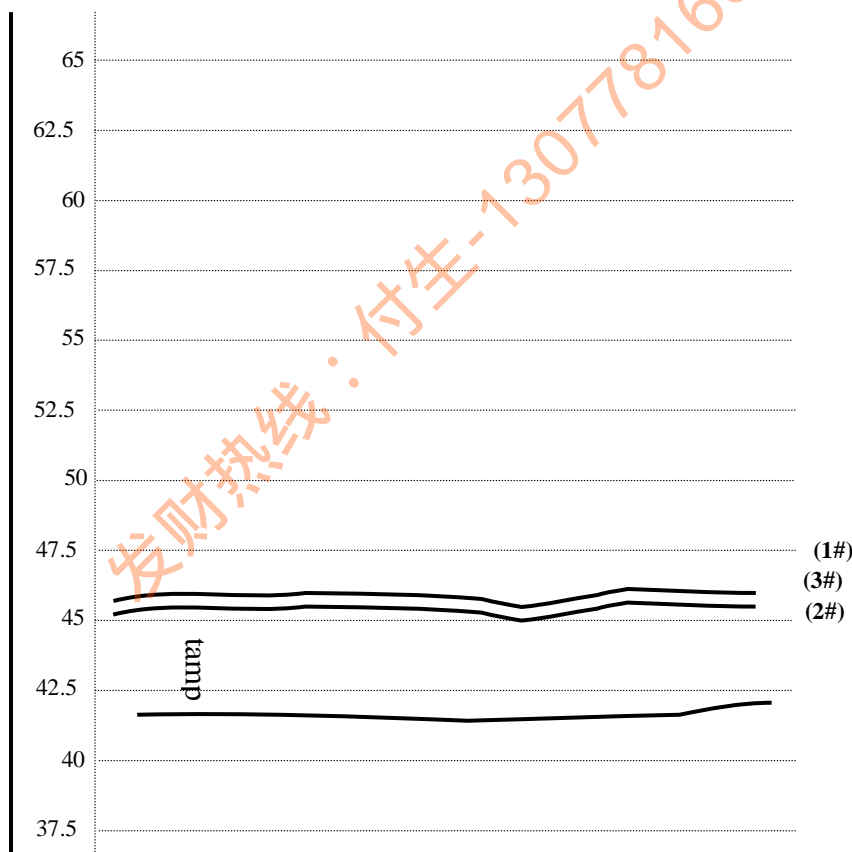
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10. TEMPERATURE TEST REPORT (UNIT: °C) :

环境温度: 27°C

针号	1	2	3	4	5	6	7	8
被测点	L1	Q6						
温度	34.4	36.2						
温升	15.4	17.2						



备注: 温度测试用则温箱在最大亮度时进行, 所列温度均为稳定值, 测试仪器用 JK-2 多路温度测试仪。



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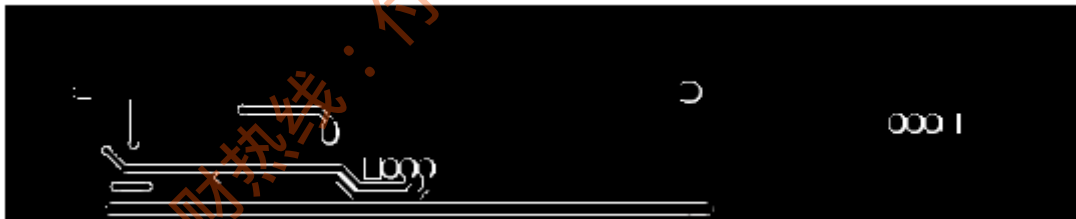
11. QUALITY ASSURANCE TEST

TEST RECORD FOR SAMPLES				
INVERTER TEST DATA		TEST INSTRUMENT	GPR-7550D / TDS3012B FLUKE45	
TYPE	JX-08D05ER1.0		TEST DATA	
TEST ITEM	TEST CONDITIONS	SURROUNDING TEMPERATURE	SAMPLE 1	
			MIN	MAX
INPUT CURRENT I_{in} (A)	$V_{in}=12V$ ON/OFF=5V $V_{brit}=0V$ $RL \approx LED$	0°C	0.35	2.0
		26°C	0.40	2.0
		50°C	0.45	2.0
OUTPUT VOLTAGE V_o (Vdc)	$V_{in}=12V$ ON/OFF=5V $V_{brit}=0V$ $RL \approx LED$	0°C	24.5	63.5
		26°C	25.0	63.5
		50°C	25.5	63.5
OUTPUT CURRENT I_o (mA)	$V_{in}=12V$ ON/OFF=5V $V_{brit}=0V$ $RL \approx LED1-LED8$	0°C	45	370
		26°C	50	380
		50°C	55	390
OUTPUT FREQUENCY f_L (KHZ)	$V_{in}=12V$ ON/OFF=5V $V_{brit}=0V$ $RL \approx LED$	0°C	100	120
		26°C	100	120
		50°C	100	120

12. PWB LAYOUT DIAGRAM



顶层



底层



13. SAFETY PART LISTED :

ITEM	DESCRIPTION	MANUFACTURER	SAFETY NO.
1	Double Side PCB	KE XIAN PCB	E176756
		BEYONG SCI-TECH	E191940
2			
3			
4			
5	Tape	Four Pillars or Solar Plus	E50292
6	Insulating Varnish	Advanced Ink or Kaiweisi Chemical	E200154 E73015
7	Connecter	LAND WIN	E159426
		FJY	E248743
		CHYAO	E113875
8	Fuse	Little	E10480
		AEM	E232989

15.FAULT CONDITION TEST

Damage to the inverter must not occur such as fire, smoke, break, and molten metal in equipment.

16. Attention

This driver is LCD13.3/27 the inch liquid crystal LED BOOST VOLTAGE worn out fur woman with no pubic hair actuates the power source, when use, the wiring must be correct, will otherwise bring to the electric circuit exceptionally!

This FangAn in open protection function !