



承认书
FOR APPROVAL

客 户 :
CUSTOMER: _____
品 名 :
DESCRIPTION NO.: CCFL INVERTER
料 号 :
PART NO. : SNB-0403
样品编号:
SAMPLE NO.: 002
日 期:
DATE: 2009-5-14
版 本:
EDITION: VER: 1.0

客户承认 APPROVED BY		制造单位 MANUFACTURED BY		
APPROVED BY	CHECKED BY	APPROVED BY	CHECKED BY	DESINGED BY
		<i>Sean.lee</i>	<i>SoLee</i>	李绍友
需改进项目(客户填写):				

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1. 描述(GENERAL DESCRIPTION)

这是个直流转为交流的逆变器，可用在 4 灯的 CCFL LCD 背光照明。

This DC-AC Inverter was developed for 4CCFL lamps of LCD back lighting system.

2. 特点(FEATURES)

高效率，低损耗，宽温度范围可正常工作。

High performance low consumption special operating temperature

3. 使用范围(APPLICATION)

这款直流转交流的逆变器是用在所有 4 灯的显示器及电视机的 LCD 显示屏上

The DC to AC back-light inverter is special designed on any type LCD display in implement (i.e. LCD monitor, LCD TV, etc...)

4. 匹配负载(SUITABLE LOAD)

4 灯管 22 寸 TFT 液晶显示屏

4 Lamps TFT LCD Module

5. 最大工作环境(ABSOLUIE MAXIMUM RATING LF ENVIRONMENT)

工作温度(Temperature operating): 0°C -- 50°C

储存温度(Temperature storage): -20°C -- 60°C

工作湿度(Humidity operating): 10% -- 80RH

储存湿度(Humidity storage): 10% -- 90RH

6. 输入电参数(INPUT ELECTRICAL CHARACTERISTICS)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	REMARK
INPUT VOLTAGE	Vin	10.8	12	13.2	V	
INPUT CURRENT	Iin		1.95	2.20	A	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ x 4
INPUT POWER	Pin	-	23.0	24.0	W	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ x 4
INPUT VOLTAGE	Von/off	-	0	1.2	V	Off State
INPUT VOLTAGE	Von/off	2.5	5.0	5.5	V	On State
INPUT VOLTAGE	Vadj					NC
EFFICIENCY	η	80	85	-	%	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ x 4



7. 输出电参数(OUTPUT ELECTRICAL CHARACTERISTICS)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	REMARK
LAMP CURRENT	IL	5.5	6.0	6.5	mA	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ
LAMP CURRENT	IL	2.3	3.0	3.5	mA	Vin=12V, Von/off=5V Vadj=5V, RL=120KΩ
LAMP VOLTAGE	VL	-	750	950	Vrms	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ
FREQUENCY	FL	40	50	80	KHz	Vin=12V, Von/off=5V Vadj=0V, RL=120KΩ
LAMP START VOLTAGE	Vs	-	1450	-	Vrms	Vin=12V, Von/off=5V Vadj=0V, RL=∞

8. 引脚定义 PIN ASSIGNMENTS

输入端(INPUT): JP1

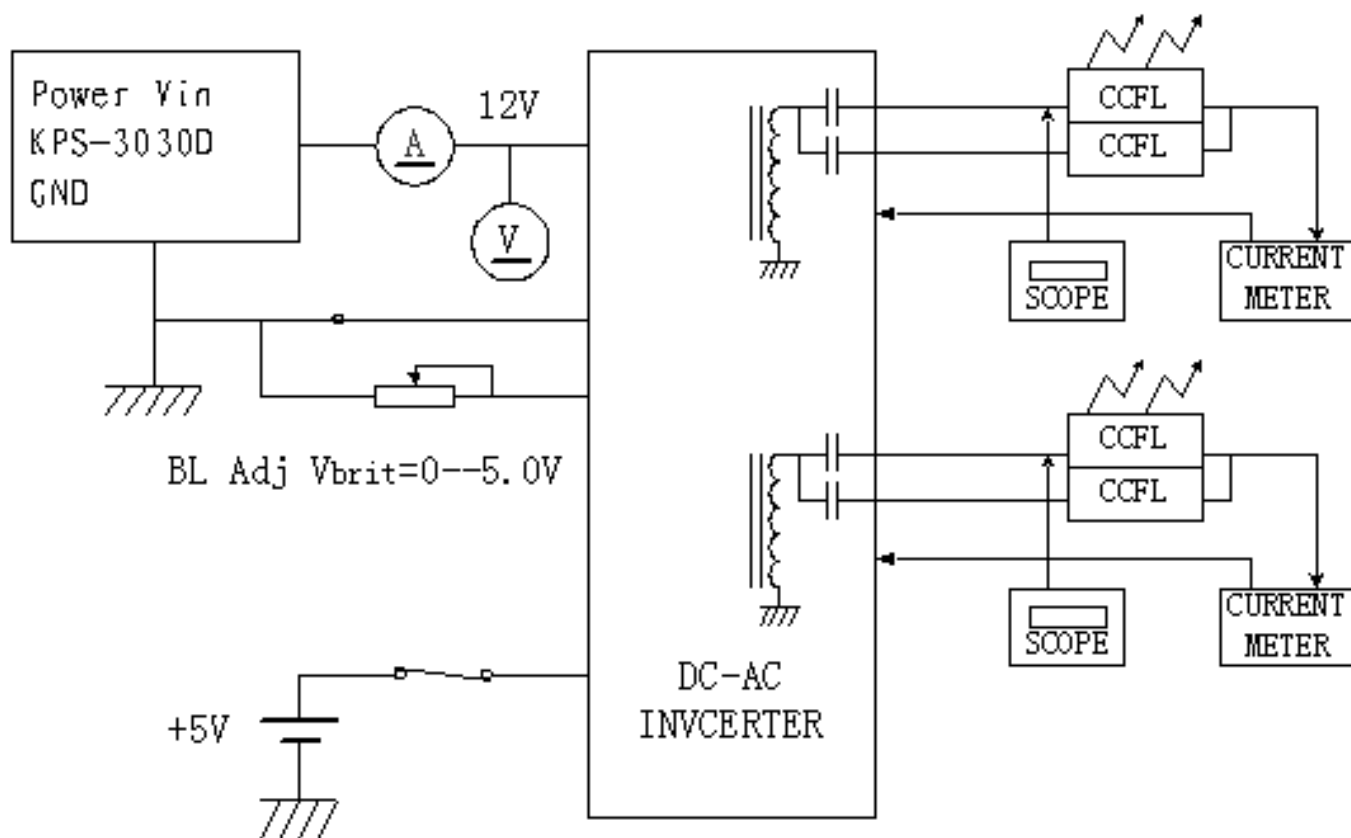
引脚 Pin	项目 term	描述 Description	电压 Voltage
1,2	电压输入 Input voltage	供给电压 Supply voltage	12V
5,6	接地 GND	接负电压 negative voltage	GND
4	调光输入 Dimming input	调光电压 Dimming voltage	0-5V(0V MAX,5V MIN)
3	开关电压 Switching voltage	待机/开机 OFF/ON	开(ON)=1.2-5V 关(OFF)=0-1.1V

输出(OUTPUT):JP2-JP5

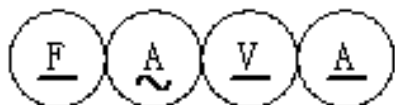
引脚 PIN	项目 Term	描述 Description
1	Vout for CCFL	High Voltage
2	Gnd	Power Return



10. 测试电路图 (Test Circuit Diagram)



测试仪表
MEASUREMENT EQUIPMENT



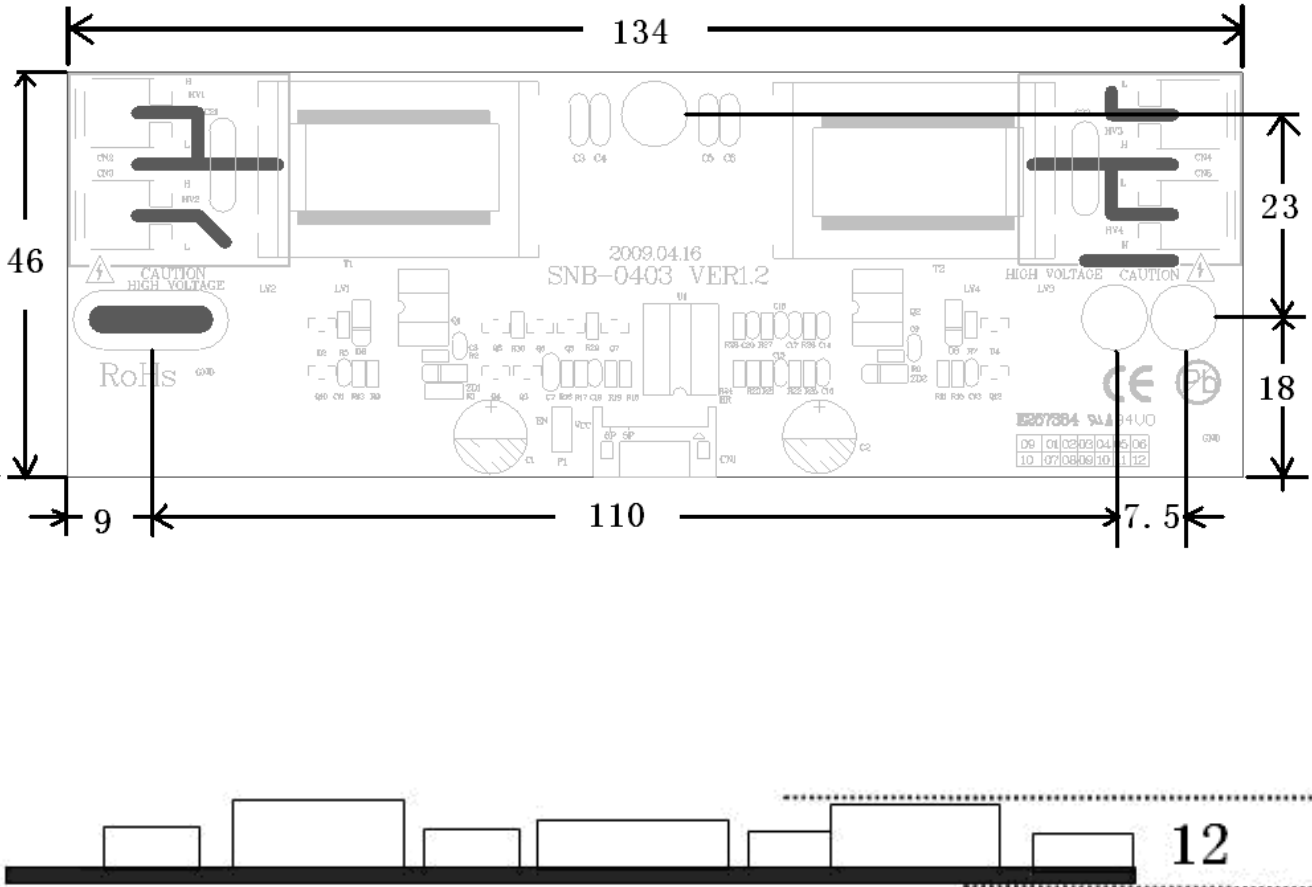
SCOPE : TDS210
: TDS5040

CURRENT METER : FLUKE 45



11. 机械图 (MECHANICAL DRAWINGS)

11.1 结构尺寸 (P.W.B.) 单位 (Unit): mm 误差 (Tolerance): $\pm 0.5\text{mm}$





12. 质量测试报告(QUALITY ASSURANCE TEST)

样品测试记录 (TEST RECORD FOR SAMPLES)						
逆变器测试数据 (INVERTER TEST DATA)		测试工具 TEST INSTRUMENT	PS-305D / TDS1002B GDM-8145			
规格 (TYPE)	SNB- 0403		测试数据 (TEST DATA)			
测试项目 (TEST ITEM)	测试条件 (TEST CONDITIONS)	环境温度 SURROUNDING TEMPERATURE	SAMPLE 1	SAMPLE 2	SAMPLE 3	
INPUT CURRENT I _{in} (A)	Vin=12V ON/OFF=5V V _{brit} =0V RL=120kΩ	0°C	2.09			
		26°C	2.11			
		50°C	2.13			
OUTPUT VOLTAGE V _o (V _{rms})	Vin=12V ON/OFF=5V V _{brit} =0V RL=120kΩ	0°C	750	754	751	753
		26°C	751	756	753	755
		50°C	752	757	754	756
OUTPUT CURRENT I _o (mA)	Vin=12V ON/OFF=5V V _{brit} =0V RL=120kΩ	0°C	5.82	5.85	5.86	5.82
		26°C	5.84	5.87	5.88	5.83
		50°C	5.86	5.89	5.80	5.84
OUTPUT CURRENT I _o (mA)	Vin=12V ON/OFF=5V V _{brit} =5V RL=120kΩ	0°C	3.10	3.08	3.09	3.21
		26°C	3.12	3.11	3.12	3.22
		50°C	3.12	3.13	3.15	3.24
OUTPUT FREQUENCY f _L (KHZ)	Vin=12V ON/OFF=5V V _{brit} =0V RL=120kΩ	0°C	47.6	47.6	47.2	47.2
		26°C	47.6	47.6	47.2	47.2
		50°C	47.6	47.6	47.2	47.2