DATASHEET

LCD inverter, TPI-01-0207-M1 Version 05/14

Item no. 1172440

LCD DC/AC INVERTER SPECIFICATION

PART NO	**TPI-01-0207-M1**
REVISION	**VER:A1**

TABLE OF CONTENT

1.0 Revision History

Revision	Customer REV	Modify Item	Date	Prepared	Approved
VERA1	**A0**		**2010.03-05**		

2.0 Application & Notice

This DC to AC inverter is designed for the backlight of 6.4”-14.1”LCD Panel with 1 CCFL Cathode Fluorescent Lamp .

Notice:

2.1 For Safety Issue, please keep 4.0mm at least from the metal parts of the system to the inverter. Or, put a high-voltage insulator between the inverter and the metal parts to avoid the situation of Hi-POT failure or arcing---etc.

2.2 Don’t twist , deform , drop or knock the inverter during assembly.

2.3 The inverter is usually designed without the case. Please take care about ESD at anytime.

2.4 Due to the characteristic of Panels, the brightness is sensitive about Temperature. You must measure it in the same condition and waiting for power on 10~30 minutes.

3.0 Environment Characteristics

3.1 Temperature:

Storage : -25°C ~ 70°C.
Operating: -5°C ~ 50°C

3.2 Humidity:

Storage : 10% ~ 95% RH , non-condensing
Operating: 10% ~ 95% RH , non-condensing

3.3 MTBF: 60’000 Hrs @ 25°C

4.0 General Requirements

4.1 Input characteristics

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	REMARK
INPUT VOLTAGE	Vin	8.0	12	18	V	
INPUT CURRENT	Iin	-	0.35	-	A	Vin=12V Von/off=5V, Vadj=0V Load=70K
INPUT POWER	Pin	-	4.2	-	W	Vin=12V Von/off=5V, Vadj=0V Load=70K
INPUT VOLTAGE	Von/off	2.5	5	5.5	V	On State
		-	0.3	0.5		Off State
INPUT VOLTAGE	Vadj	3.0	-	0	V	0V(MAX) / 3.0V(MIN)
EFFICIENCY	η	-	85	-	%	Vin=12V Von/off=5V, Vadj=0V Load=70K

4.2 Output Characteristics

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	REMARK
LAMP CURRENT	IL	5.8	6.3	6.8	mA	Vin=12V,Von/off=5V, Vadj=0V Load=70K
LAMP CURRENT	IL	2.4	2.7	3.0	mA	Vin=12V,Von/off=5V ,Vadj=3.0V Load=70K
LAMP VOLTAGE	VL	---	500	---	Vrms	Vin=12V,Von/off=5V ,Vadj=0V Load=70K
FREQUENCY	FL	35	50	58	KHz	Vin=12V,Von/off=5V ,Vadj=0V,Load=70K Ta=25℃
OPEN VOLTAGE	Vs	---	1400	---	Vrms	Vin=12V,Von/off=5V Vadj=0V , Load=∞
OUTPUT OPEN	VL	LATCH				Vin=12V,Von/off=5V Vadj=0V , Load=∞
OUTPUT SHORT	VL	LATCH				Vin=12V,Von/off=5V Vadj=0V , Load=2KΩ

4.3 Pin Assignments

DC Input :

Location: CN1

Connector type: PH1.25-5Pin or equivalent

Pin No	Symbol	Description
1	**VIN**	**8.0~18V**
2	**GND**	Power return
3	ON/OFF	**ON: 5.0V, OFF: 0V**
4	**ADJ**	0V<Max> ~ 3.0V<Min>

AC Output:

Location: CN2

Connector type: PH:8.0-2Pin or equivalent

Pin No	Symbol	Description
1	**Vout H**	**High Voltage**
2	**Vout L**	**Return**

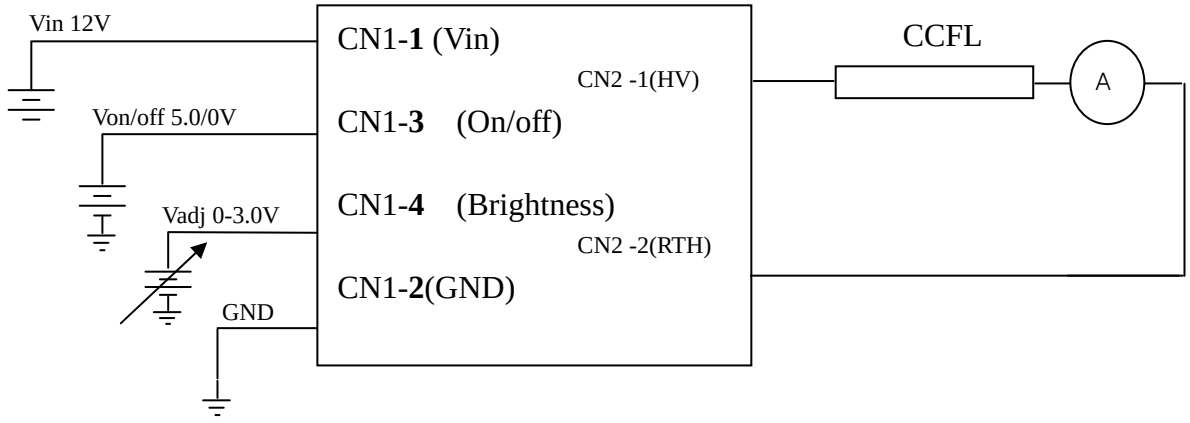
4.4 Test Equipment

Oscilloscope : Tektronix TDS3012B

High Voltage Probe : Tektronix P6015A

Multi-Meter : FLUKE45

5.0 Test Circuit

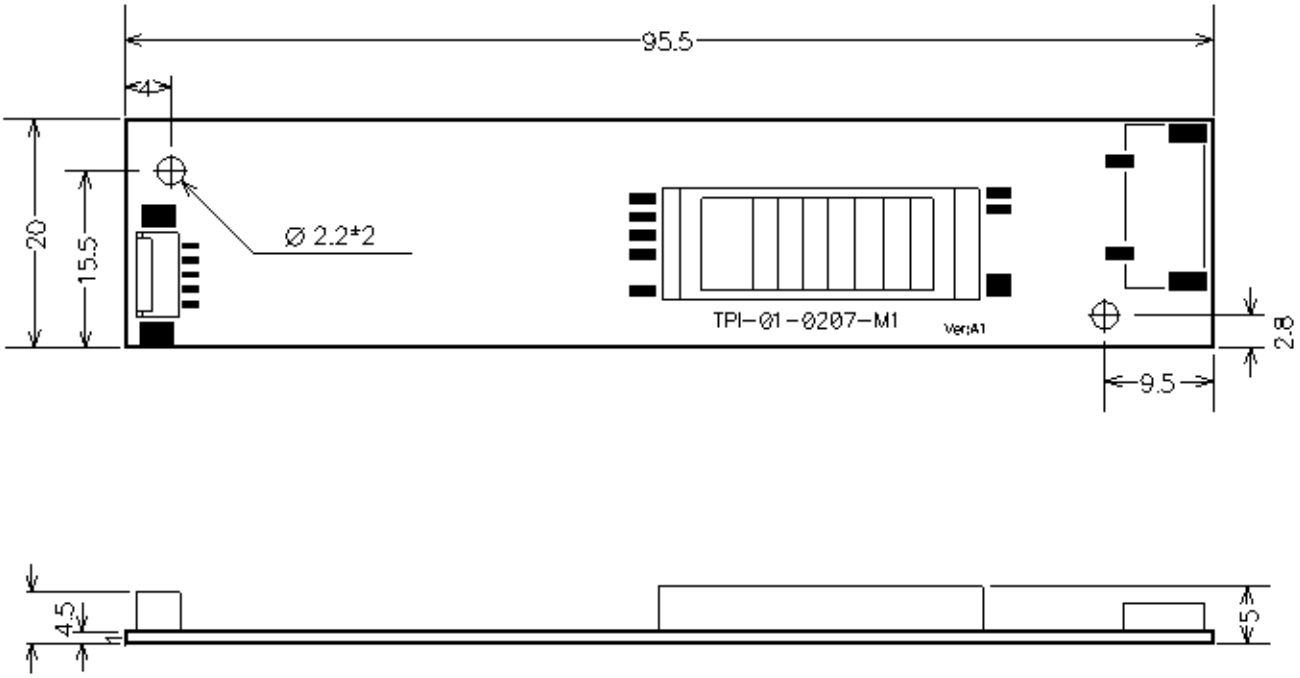


6.0 Mechanical Characteristics

Item	**L*W*H (mm)**	**For use with**
Dimension	**95.5*20*5**	**6.4”~14.1 LCD’s**

Tolerance: ±0.5mm

7.0 Outline Dimension:



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