

TI1704AV-02 INVERTER ELECTRICAL SPECIFICATION

1. APPLICATION

This specification is applied to CCFL inverter unit for 17" 4L & 19" 4L color LCD backlight.

Panel Type : AU M170EG01 V9 & AU M170EG01 VD & AU M190EG02 V2(V4) & Samsung LTM190EX-L35 & LG LM170E03(TL)(G1) & LG LM170E03(TL)(G2) & HSD 190MEN3-A00 Rev.0 & HSD 190ME13-D10 Rev.2 & CPT CLAA170EG01 VD & CPT CLAA170EA07QY

2. ELECTRICAL CHARACTERISTICS

NO.	Item	Symbol	Condition	Min.	Typ.	Max.	Unit
1	Input Voltage	Vin		10.8	12.0	13.2	V
2	Input Current	Iin	Vin= 12 V, Vadj= 0 V (4 Lamp)	---	---	2.5	A
3	Inrush Current	Iin	Vin= 12 V, Vadj= 0 V (Imax)	---	---	3.5	A
4	Input Power	Pin	Vin= --- V, Vadj= --- V (--- Lamp)	---	---	---	W
5	Backlight ON/OFF Control	Von	Normal Operation	2.4	---	5	V
		Voff	Shutdown	0	---	1.2	V
6	Brightness Adjust (Lamp Current Control)	Vadj	Normal Operation	5	---	0	V
7	Output Voltage	Vout	Vin= 12 V, Iout= 7.5 mA (1 Lamp) (REF,VALUE)	---	660	---	Vrms
8	Output Current (Each Connector)	Iout(Max)	Vin= 12 V, Vadj= 0 V (1 Lamp) Ta= 25 °C, After running 30min.	7.0	7.5	8.0	mArms
		Iout(Min)	Vin= 12 V, Vadj= 5 V (1 Lamp) Ta= 25 °C, After running 30min.	2.0	3.0	4.0	mArms
9	Burst Frequency	Freq	Vin= --- V, Vadj= --- V	---	---	---	Hz
10	Frequency	Freq	Normal Operation	40	50	60	KHz
11	Lamp Start Voltage	Vopen	No Load, Vin= 12 V, Ta= 25 °C	1300	---	---	Vrms
12	Efficiency	η	Vin= 12 V, Load= PANEL	75	---	---	%
13	Striking time	Tscp	Vin= 12 V, Vadj = 0 V	1	---	2	Sec
14	Open Lamp Protection	Latched					
15	Short Lamp Protection	Latched					

Note : The lamp start voltage is tested under one lamp opened Circuit, with a 10cm Hv-wire connected to Hv Probe to simulate lamp wire.

MODEL NAME	TI1704AV-02	DATE	2009/6/5	Code.	V	REV.	B
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3. INTERFACE SPECIFICATION

Input Connector : CON1
: CS JS-1261R-06 (NM) or equ

Pin No.	Signal	Description
1,2	Vin	Input Voltage
3,5	GND	Power System Return
4	Vbri	Lamp Control
6	ON/OFF	ON / OFF Control

Output Connector : CN1,CN2,CN3,CN4
: CS JS-2013-02 (M) (LOCK) or equ.

Pin No.	Signal	Description
1	Lamp High	High Voltage Output For High Side CCFL
2	Lamp Low	Low Voltage Output For Low Side CCFL

4. ENVIRONMENT

Operation Temperature	0 ~ 50 °C
Operation Humidity	95 % Max. RH
Storage Temperature	- 10 ~ 60 °C
Storage Humidity	95 % Max. RH

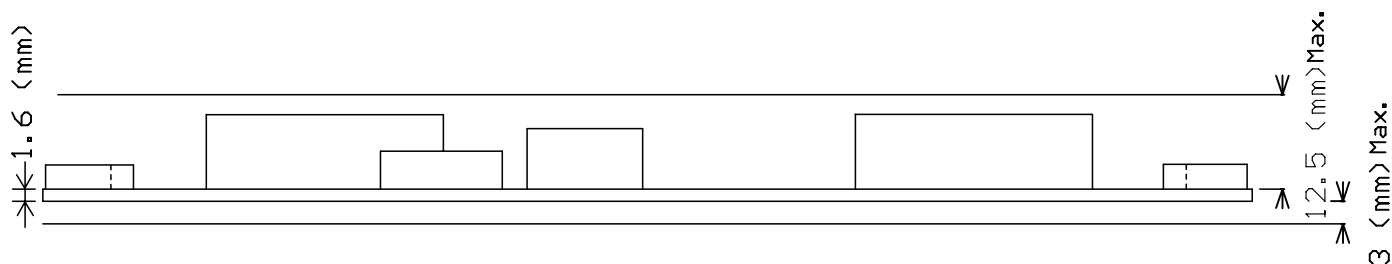
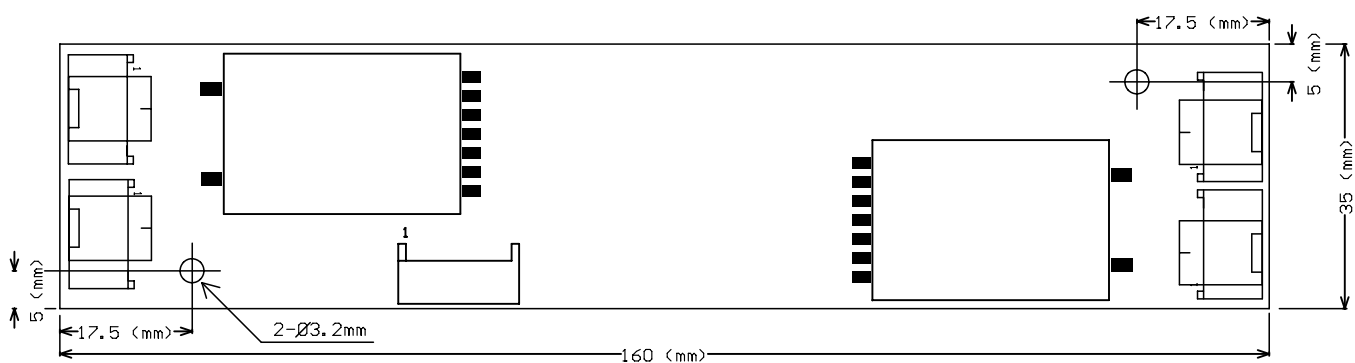
5. TEST EQUIPMENT

Dc Power Supply	☒ Toward 6303D	☐ Toward 3306D
Scope	☐ Tektronix TDS1012	☐ Tektronix TDS-360 ☐ Tektronix TDS2024
	☐ Tektronix TDS 3032B	☒ Tektronix DPO 4032
High Voltage Probe	☒ Tektronix P6015A (1000x3.0pF 100MΩ)	
Current Probe	☐ Tektronix TM502A	☐ Tektronix A6302 ☒ Tektronix P6022
	☐ FLUKE45	

6. Lamp Current Selection

JC1,JC2	Open	7.0 mA (Typ)
JC1,JC2	Short	7.5 mA (Typ)

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TPEI		TAIWAN POWER CONVERSION INC., LTD	
FILE NAME: T11704AV-02		PCB Material Tolerance (mm)	
DATE: 99/07/12		TOLERANCE DIM(mm)	
Dimension: 160 x 35mm (+/-0.5mm)			
T	1.0	1.2	1.6
FR4	+0.20/-0.13	+0.20/-0.13	+0.20/-0.13
FR1	+0.18/-0.13	+0.18/-0.13	+0.18/-0.13
CEM1	+0.18/-0.13	+0.18/-0.13	+0.18/-0.13
X	+/-0.5	X,X	+/-0.25
X,XX	+/-0.12	X,XXX	+/-0.08