

TI2204WS-01 INVERTER ELECTRICAL SPECIFICATION

1. APPLICATION

This specification is applied to CCFL inverter unit for 22" & 19" 4L color LCD backlight.

Panel Type : CMO M220Z1-L06 Rev.C1 & CMO M220Z1-L02 Rev.C1

CMO M190A1-L09 Rev.C1 & AU M220EW01-V0 &

AU M220EW01-V2 & AU M190PW01 V0

2. ELECTRICAL CHARACTERISTICS

NO.	Item	Symbol	Condition	Min.	Typ.	Max.	Unit
1	Input Voltage	Vin		10.8	12	13.2	V
2	Input Current	Iin	Vin= 12 V, Vadj= 0 V (4 Lamp)	---	---	2.85	A
3	Inrush Current	Iin	Vin= 12 V, Vadj= 0 V (Imax)	---	---	5	A
4	Input Power	Pin	Vin= 12 V, Vadj= 0 V (4 Lamp)	---	---	37.6	W
5	Backlight ON/OFF Control	Von	Normal Operation	2.0	---	5.0	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)	---	775	---	Vrms
8	Output Current (Each Connector)	Iout(Min)	Vin= 12 V, Vadj= 5 V (1 Lamp) Ta= 25 °C, After running 30min.	2.0	3.0	4.0	mArms
		Iout(Max)	Vin= 12 V, Vadj= 0 V (1 Lamp) Ta= 25 °C, After running 30min.	6.5	7.5	8.5	mArms
9	Burst Frequency	Freq	Vin= --- V, Vadj= --- V	---	---	---	Hz
10	Frequency	Freq	Normal Operation	40	50	60	KHz
11	Lamp Start Voltage	Vopen	Vin= 12 V, Ta= 25 °C	1400	---	2200	Vrms
12	Efficiency	η	Vin= 12 V, Load= PANEL	72	---	---	%
13	Striking time	Tscp	Vin= 12 V, Vadj= 0 V	1	---	2	Sec
14	Open Lamp Protection	NO DAMAGE					
15	Short Lamp Protection	NO DAMAGE					

Note1. : The lamp start voltage is tested under one lamp opened Circuit, with a 10cm Hv-wire connected to Hv Probe to simulate lamp wire.

Note2. : The lamp start voltage range is 1200V~2000V with 99KΩ//10pF resistor load .

MODEL NAME	TI2204WS-01	DATE	2009/9/16	Code.	Z	REV.	B
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3. INTERFACE SPECIFICATION

Input Connector : CON1
: CS JS-1261R-05 (NM) or equ

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

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

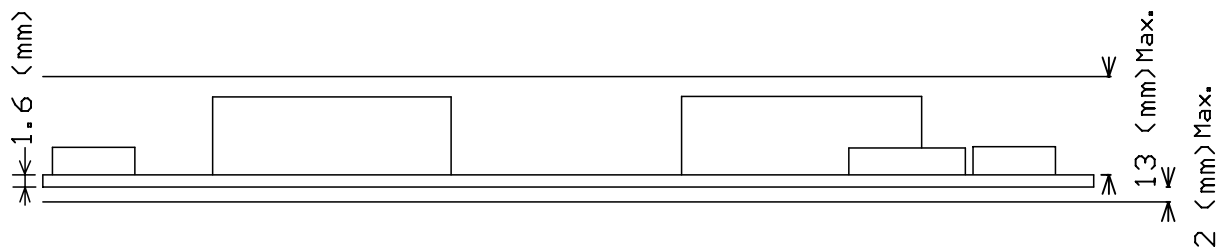
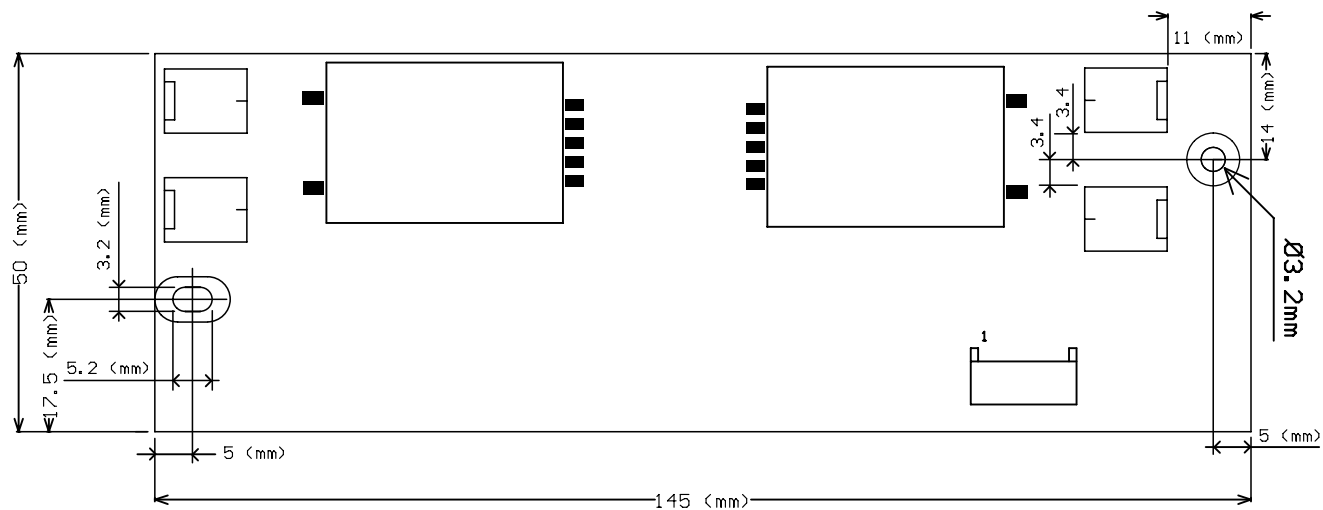
4. ENVIRONMENT

Operation Temperature	0 ~ 50 °C
Operation Humidity	90 % Max. RH
Storage Temperature	- 10 ~ 85 °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	

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TPEI		TAIWAN POWER CONVERSION INC., LTD	
FILE NAME: TI2204WS-01		PCB Material Tolerance (mm)	
DATE: 98/08/11		TOLERANCE DM(mm)	
PCB Dimension: 145 x 50mm (+/-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		
XX	+/-0.25		
XXX	+/-0.12		
XXXX	+/-0.08		