

FOR MESSRS :

SPECIFICATION FOR APPROVAL

(FOR LCD MNT 10.4" APPLICATION PURPOSE)

TFT LCD BACKLIGHTING INVERTERPART NO. : FIE1521-03DBUYER'S PART NO.:

APPROVED	REFERENCE

(PLEASE RETURN ONE OF THESE TO US IMMEDIATELY WITH YOUR SIGNATURE FOR APPROVAL)

FRONTEK CO., LTD

TESTED BY	CHECKED BY	APPROVED BY

CONTENTS OF SPECIFICATION

INVERTER PART NO. : FIF1521-03D

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1.Revision History

DATE	PURPOSE	PAGE	CONTENTS OF ALTERATION	CONFIRMATION	
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2.General Description

SCOPE:

This DC-AC inverter was developed for 2 CCFL lamps of LCD back-light system.

3.Applications

- 15.1" LCD Monitor

4.Absolute maximum rating

- Input supply voltage : 11 ~ 13V
- Input current : 1.1A
- Input power : 10W
- Output voltage : 650Vrms
- Output current : 7.0mA rms
- Output power : 12W (2 Lamps total)
- Input signal voltage : -0.3V ~ 6.0V
(On/Off /I Control)
- Ambient operating temperature : 0°C ~ 60°C
- Storage temperature : -30°C ~ 80°C
- Operating & Storage Humidity : 10% ~ 85%

5. Electrical Characteristics

► Input Voltage(Vdc) : 11.0 ~13.0

No.	Items (Unit)	Sign.	Condition		Min.	Typ.	Max.
1	Input Current (A)	I _{in}	V _{in} =12V	CTRL=5V	0.11	0.21	0.31
				CTRL=0V	0.63	0.73	0.83
2	Output Current 1,2(mA)	I _{out1,2}	V _{in} =12V	CTRL=5V	2.5	3.2	3.9
				CTRL=0V	5.6	6.3	7.0
3	Output Current 3,4(mA)	I _{out3,4}	V _{in} =12V	CTRL=5V	0	0	0
				CTRL=0V	0	0	0
4	Lamp Frequency (kHz)	f	V _{in} =12V	CTRL=0V	41	46	51
5	ON/OFF Control	ON	V _{in} =12V, ON/OFF=5V		Normal Operation		
		OFF	V _{in} =12V, ON/OFF=0V		Shunt-down (Lamp off)		
6	Dim Adjust (Lamp Current Control)	CTRL	CTRL=0V, Max Current		0.0 ~ 5.0 Volt.		
			CTRL=5V, Min Current				
7	Kick-Off Voltage(Vrms)	V _{k-off}	Kick-Off		MORE THAN 1100		

6.Functional Pin Description

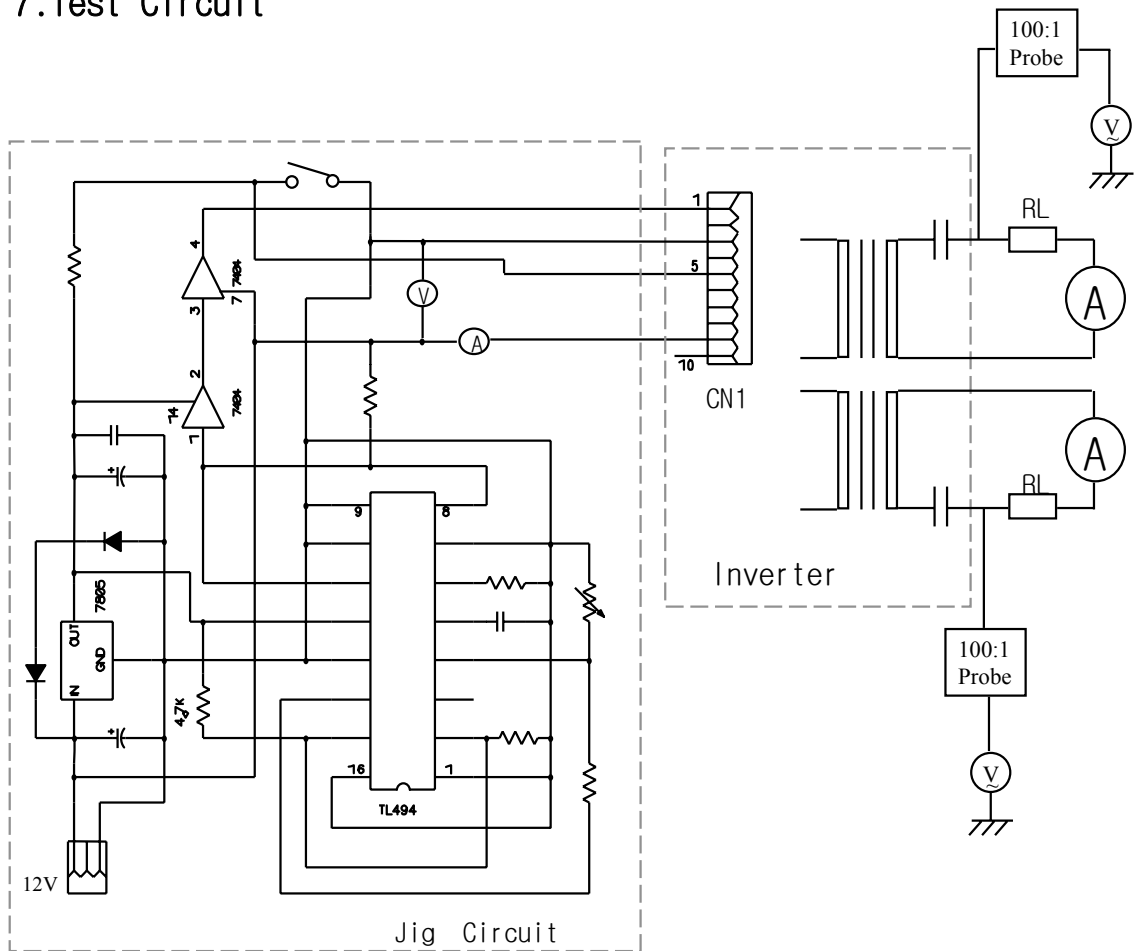
6.1. Input Connector CN1 : 12505WR-10A00 (YEON-HO, R:MOLEX)

Pin No.	Symbol	Description
1	CTRL	Dim Adjust, Apply 0V ~ 5Vdc to Control Lamp
3,4,7,8	GND	GND
5	ON / OFF	Power System Return (5V:ON, 0V:OFF)
9,10	Vin	Input Voltage : 12V \pm 1V

6-2. Output Connector CN2,CN3 : SM02B-BHS-1-TB (Yeon Ho,MOLEX,JST)

Pin No.	Symbol	Description
1	Lamp H1	High Voltage Connection to high side of Lamp.
2	Lamp L1	Low Voltage Connection to low side of Lamp.

7. Test Circuit

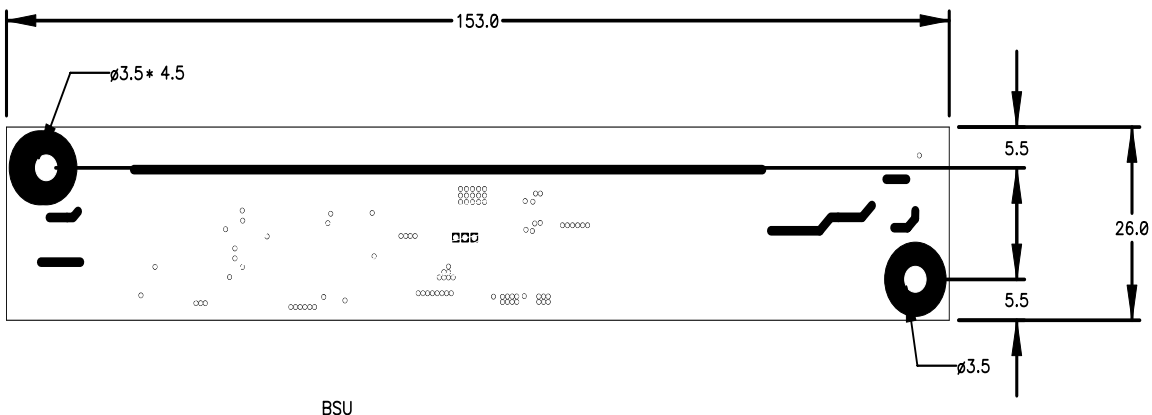


- * Input Volt Meter : Fluke 45
- * Input Current Meter : Fluke 45
- * Output Current Meter : Fluke 45

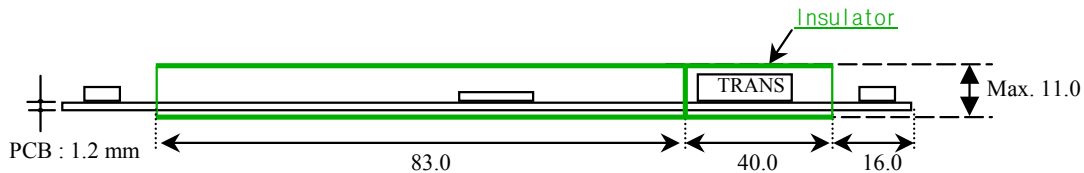
8.Mechanical Drawings

8-1.P.W.B

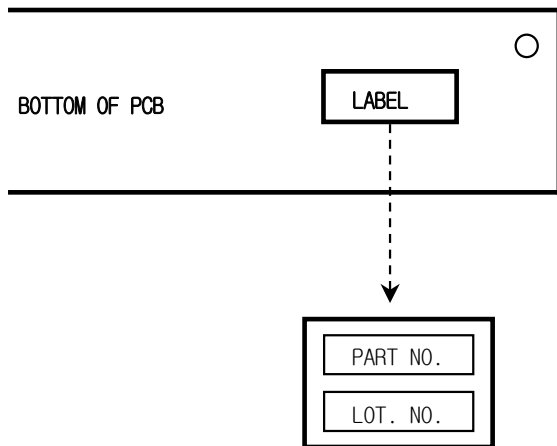
*. Unit : mm
*.Tolerance : ± 0.2mm



8-2.Trans & Insulator



8-3.Marking



*. PART NO. : FIF1521-03D
 *. LOT NO. : ○○○○○○
 YEAR MONTH DAY

9. Quality Assurance Test

NO.	ITEMS	TEST CONDISIONS	Numbers of Samples	NOTE
0	Electrical Characteristics & Appearance test	Electrical Characteristics & Mechanical size on approval sheet	21 EA	
1	High temperature Operation Test	50°C, Vin = 13V, Ctrl = 0V, 500Hr	3 EA	
2	Low temperature Operation Test	0°C, Vin = 13V, Ctrl = 0V, 240Hr	3 EA	
3	High temperature Storage Test	80°C, 240Hr	3 EA	
4	Low temperature Storage Test	-20°C, 240Hr	3 EA	
5	High temperature & High Humidity Storage Test	40°C, 95%RH, 240Hr	3 EA	
6	Heat Shock Test	-20°C(0.5Hr) + 80°C(0.5Hr) 20 Cycle	3 EA	
7	Power On/Off test	Vin = 13V, On/Off = 20,000 Cycle	3 EA	On Time(2 sec) + Off Time(2 Sec)