

DC-AC INVERTER UNIT

CXA-0454 (8 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This DC to AC Inverter was developed for many other low LCD Backlight power supply as low profile applications, either for LCD Monitor or Industrial PC

APPLICABLE LCD:

- 10 to 15 inches double lamp type
- Lamp Voltage 600 Vrms
- Lamp Current 2 x 6 mArms
- Lamp Start Up Voltage 1.700 Vrms (Vin : 12 Vdc)



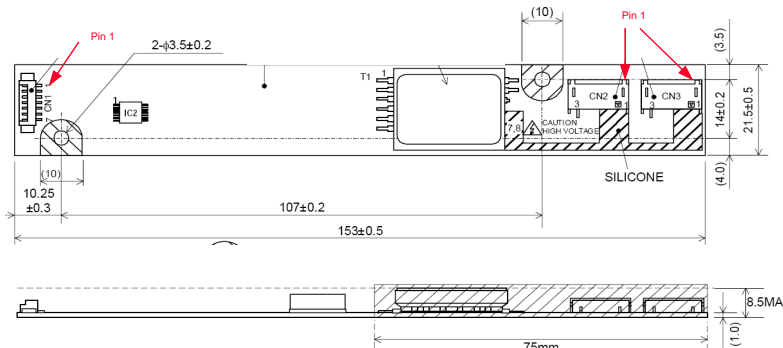
FEATURES :

- PWM dimming type
- Current Feedback Circuit
- High Efficiency
- Low noise with voltage resonant circuit
- Regulated output current
- High Temperature range
- RoHs compliant (R)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -30°C ~ +80°C
- Storage Temperature Range -30°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H 153 x 21.5 x 8.5mm



Unit : mm
Weight :21.2 (g) typ.

Components

No.	Part Description	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1mm
2	Connector CN1	1	53261-0771	Molex or equal
3	Connector CN2 ~ CN3	2	SM02(8.0)B-BHS-1-TB	JST or equal

Input side CN1:

Pin No.	Symbols	Rateds
CN 1-1+2	Vin	10.8 ~ 13.2 Vdc
CN 1-3+4	GND	-
CN 1-5	Vrmt	0 ~ 0.4 = OFF / 2.5 ~ Vin = ON
CN 1-6	Vst	0 / 5.0 Vdc ^{*Note 2}
CN 1-7	Vbr / Rbr	0 ~ 2.5 Vdc / 0 ~ 50 kΩ

Output side CN2 ~ CN3

Pin No.	Symbols	Rateds
CN 2-1	Vhigh	600 Vrms (6.0 mArms)
CN 2-2	N.C.	-
CN 2-3	Vlow	(GND)

Power Systems – The Power Solution

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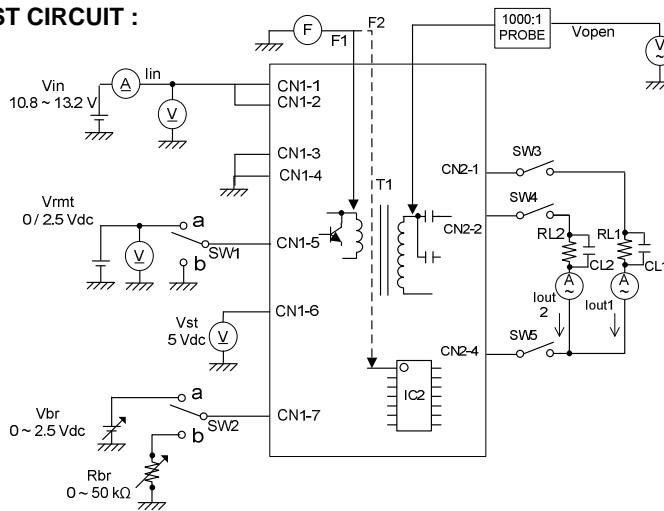
ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V) / Rbr (kΩ)	Tu (°C)	Min.	Typ.	Max.		
Output Current	lout1	12±1.2	0.0/0.0	-30 ~ +80	5.3	6.0	6.7	mArms	
	lout2	12±0.6	0.0/0.0	-30 ~ +80	5.5	6.0	6.5	mArms	
	lout1	12±1.2	2.5 / 50	-30 ~ +80	1.1	2.0	2.9	mArms	
	lout2	12±0.6	2.5 / 50	-30 ~ +80	1.2	2.0	2.8	mArms	
Input Current	lin1	12±0.6	0.0/0.0	-30 ~ +80	-	0.7	1.0	Adc	
	lin2	12±0.6	0.0/0.0	-30 ~ +80	-	-	1.0	mAdc	
Frequency	F1	12±0.6	0.0/0.0	-30 ~ +80	58	63	68	kHz	
Frequency (duty)	F2	12±0.6	2.5 / 50	-30 ~ +80	200	250	300	Hz	
Open Circuit Voltage	Vopen	12±1.2	0.0/0.0	-30 ~ +80	1.500	1.700	1.900	Vrms	
Alarm Signal	Vst	12±1.2	0.0/0.0	-30 ~ +80	4.5	5.0	5.5	Vdc	
		12±1.2	0.0/0.0	-30 ~ +80	4.5	5.0	5.5	Vdc	
		12±1.2	0.0/0.0	-30 ~ +80	-	0	0.5	Vdc	

Note 1 : Please keep minimum of 2mm clearance (all directions) between inverter high voltage area as marked on mechanical drawing and any conductors.

Note 2 : This is an output pin and it is active high (+5) if any lamp opens / fails.

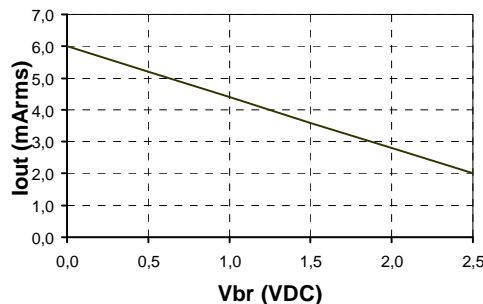
TEST CIRCUIT :



SW1	Operation of unit
a	Operation
b	Non operation

SW2	Operation of unit
a	Voltage dimming Vbr = 0 ~ 2.5 Vdc
b	Variabel resistance dimming Rbr = 0~ 50 kΩ

DIMMING CHARACTERISTICS :



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