

# DC-AC INVERTER UNIT

**PS-DA0253-124(S) (8 W DUAL OUTPUTS)**

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.  
Optimized for **Sharp: LQ104S1DG21 and LQ121S1LW01**

**APPLICABLE LCD:**

- 10 to 15 inches dual lamp type
- Lamp Voltage 466 Vrms
- Lamp Current 2 x 6.0 mArms
- Lamp Start Up Voltage 1.700 Vrms (Vin : 12 Vdc)



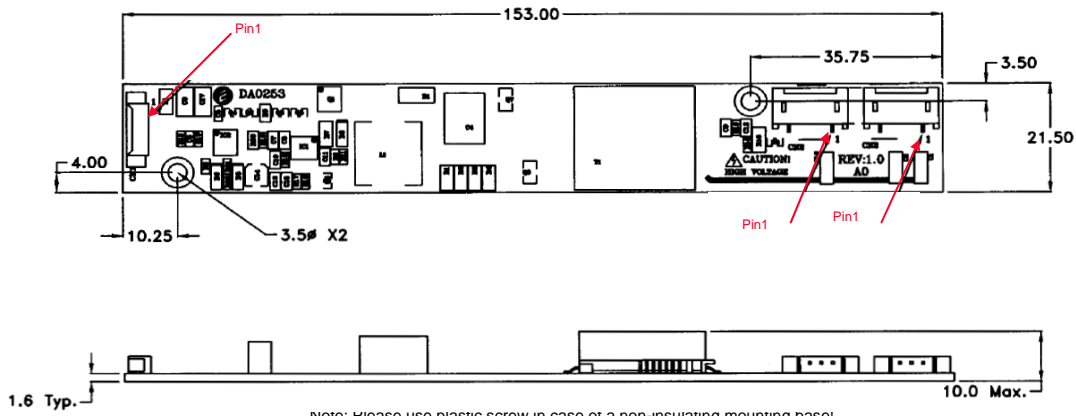
**FEATURES :**

- Current Feedback Circuit
- High Efficiency
- Low noise with voltage resonant circuit
- Regulated output current
- RoHS compliant (S)
- Coating on request
- Wide temperature range

**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 22 x 10 mm



Unit : mm  
Weight :20 (g) typ.

**Components**

No.	Part Description	Qty.	Material	Note
1	PCB	1	UL94V-0 (FR-4 or CEM-3)	t=1.6mm
2	Connector CN1	1	53261-0790	Molex or equal
3	Connector CN2 ~ CN3	2	SM02(8.0)B-BHS-1-TB	JST or equal

**Power Systems – The Power Solution**

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(PRELIMINARY INFORMATION)

**Input side CN1:**

Pin No.	Symbols	Ratings
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	Vbr	0 ~ 2.5 Vdc
CN 1-7	N.C.	-

**Output side CN2 ~ CN3**

Pin No.	Symbols	Ratings
CN 2/3-1	Vhigh	446 Vrms (6.0 mArms)
CN 2/3-2	N.C.	-
CN 2/3-3	Vlow	(GND)

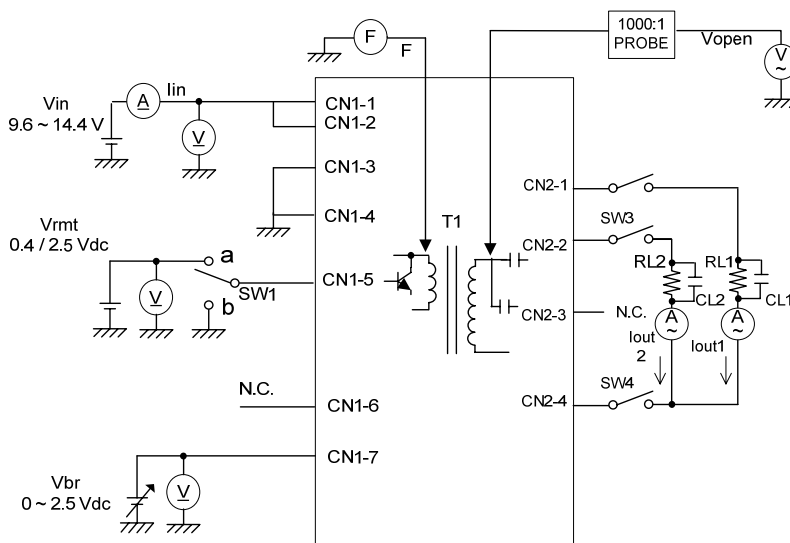
**ELECTRICAL CHARACTERISTICS :**

Parameters	Symbols	Conditions			Specification			Unit	Note
		Vin (V)	Vbr (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	12±1.2	0.0	-30 ~ +80	5.5	6.0	6.5	mArms	Duty 100%
Output Current	Iout	12±0.6	2.5	-30 ~ +80	1.5	2.0	2.5	mArms	
Input Current	Iin	12±1.2	0.0	-30 ~ +80	-	0.75	1.0	Adc	
Frequency	F	12±1.2	0.0	-30 ~ +80	32.5	40	47.5	kHz	
Open Circuit Voltage	Vopen	11.4	0.0	-30 ~ +80	1.500	1.700	-	Vrms	
No Load Shutdown	Tsd	12±1.2	0.0	-30 ~ +80	1.0	-	-	sec	without load

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 : Open circuit on all lamps for more than 3 seconds, will shut the inverter down.

**TEST CIRCUIT :**



SW 1	Operation of unit
a	Operation
b	Non operation

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