

**APPLIED  
CONCEPTS INC.**

397 Route 281 - P.O. BOX 1175  
Tully, New York 13159-1175  
Phone: (315) 696-6676 Fax: (315) 696-9923  
[www.acipower.com](http://www.acipower.com)

**ACJ-B1-1522**

PRELIMINARY DATA SHEET - PAGE 1 OF 2

**CCFL INVERTER**

*(For Dual Tube Applications)*

02/28/05

**GENERAL DESCRIPTION**

The ACJ-B1-1522 is designed to power 2 CCFL's at a nominal power level of 5 watts from an input voltage of 12V

Intensity control (0-100%) is accomplished by the user providing an active low signal to the up or down buttons controls lines on CON1, Pins 6+7

Voltage(+5V) is available @ pin 8 of CON1 for external use.

Enable control is accomplished @ pin 5 of CON1. This unit will remember the last brightness setting upon power up

All outputs are open and short circuit protected.

**MECHANICAL / ENVIRONMENTAL**

Weight = 21.5 grams

Altitude = 10,000 Ft maximum

Humidity < 85% non-condensing

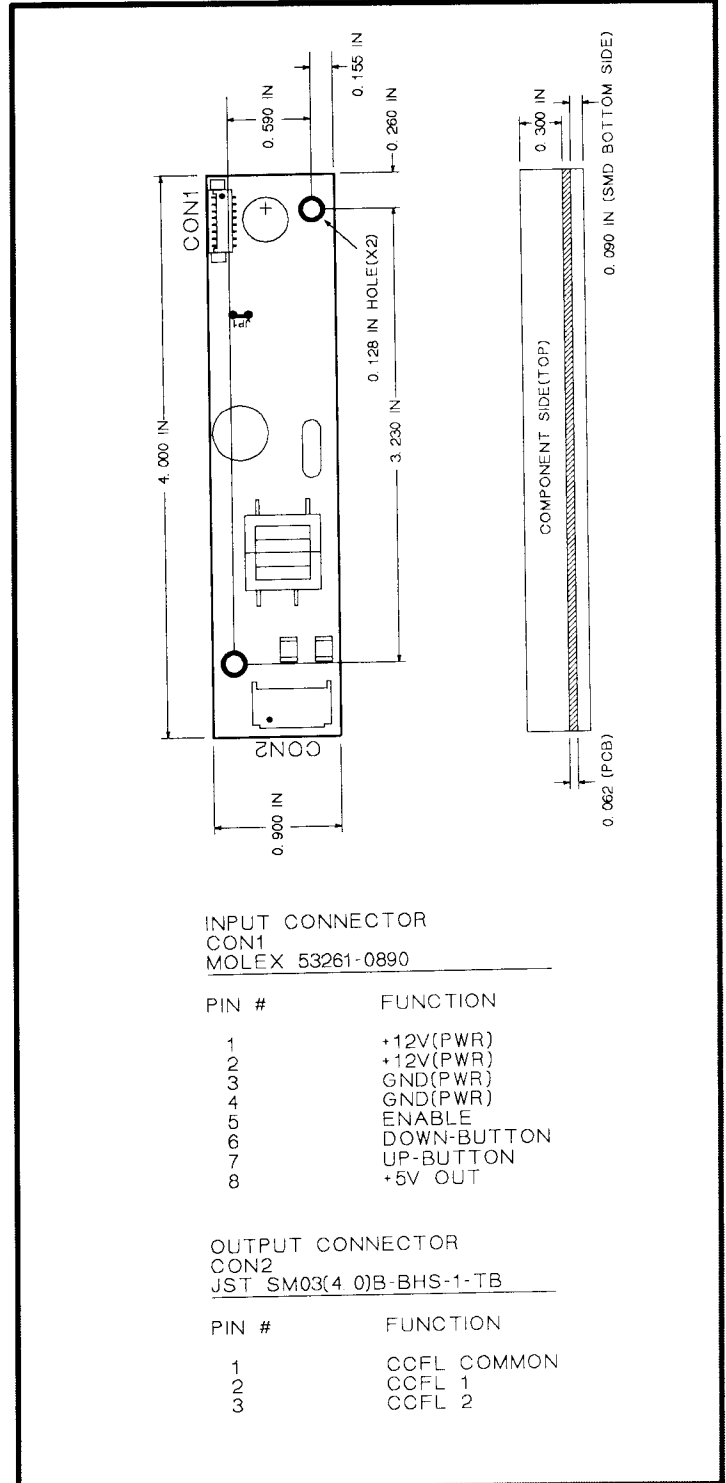
Size (L x W x H) = 4.0 IN x 0.9 IN x 0.452 IN

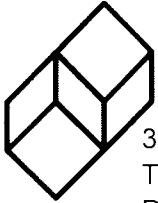
PCB thickness = 0.062 IN

Mounting Holes = 0.128 IN diameter (X2)

Input Power & Control Connector = CON1

CCFL Output Connector = CON2





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**MAXIMUM RATINGS\***

2/28/05

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 13.5	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	7	W
Top	Operating Temperature (Still air ambient around Inverter)	-20 to +70	DegC
Tstg	Storage Temperature	-40 to +105	DegC

\* Maximum Ratings are those values beyond which damage to the inverter may occur

**RECOMMENDED OPERATING CONDITIONS**

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.8	13.2	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	385	635	Vrms
Bstep	Brightness Control steps ( Duty cycle%= Bstep/255*100)	0	255	Steps

**ELECTRICAL CHARACTERISTICS**

Vin = +12V, Lsv = 510Vrms, Enable = +5V , unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1300		Vrms
Lout	Lamp Output Current		4.5	5.5	mArms
Lfreq	Lamp-Current Frequency		34	43	Khz
Pdc	PWM Duty Cycle Range		0	100	%
ENoff	Enable Control, unit OFF (Pin 5)			0.8	Vdc
ENon	Enable Control, unit ON (Pin 5)		2.0		Vdc
UP	Up button brightness control @ Pin7	Active		0.8	Vdc
		Inactive	2.0		Vdc
Down	Down button brightness control @ Pin6	Active		0.8	Vdc
		Inactive	2.0		Vdc
+5Vout	+5Vout reference @ (Pin 8)	10k load to gnd	4.6	5.3	Vdc
Iin	Input Current Draw			0.53	Adc
Eff	Electrical Efficiency		90		%