



## Test Procedure for the NCL30082FLYGEVB Evaluation Board

### Equipment Needed

AC Source – 100 to 265 V ac 50/60 Hz Minimum 1 A ac capabilities

AC Wattmeter – 30 W Minimum, True RMS Input Voltage and Current, Power Factor 0.2% accuracy or better

DC Voltmeter – 100 V dc minimum 0.1% accuracy or better

DC Ammeter – 1 A dc minimum 0.1% accuracy or better

LED Load

Flyback – 14 – 17 V dc – 5 LED Load @ 500 mA

Buck Boost – 50 – 55 V dc – 15 LED Load @ 200 mA

### Test Connections

1. Connect the Unit Under Test (UUT) per the test set up in Figure 9.

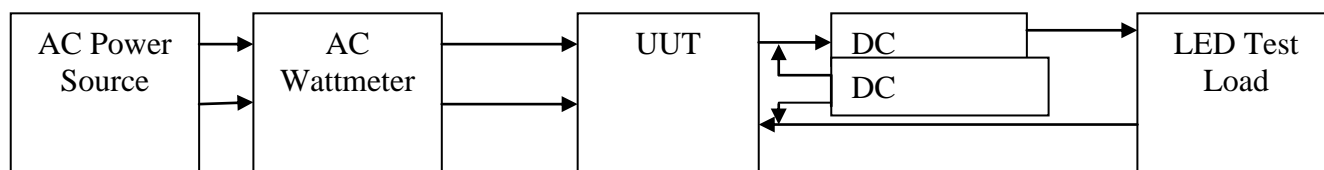


Figure 9. Test Set Up

2. Set the AC source to  $120 \pm 1$  V ac RMS 60 Hz or  $230 \pm 2$  V ac RMS 50 Hz.

**Note:** Unless otherwise specified, all voltage measurements are taken at the terminals of the UUT.



## Functional Test Procedure

### Flyback Version (NCL30082FLYGEVB)

Test Condition	Test Variable	Test Limits		Pass/Fail
		Min	Max	
V <sub>in</sub> = 100 V ac	Output Current	490 mA	510 mA	
V <sub>in</sub> = 120 V ac	Output Current	490 mA	510 mA	
V <sub>in</sub> = 265 V ac	Output Current	490 mA	510 mA	
V <sub>in</sub> = 265 V ac	Power Factor	0.70		
V <sub>in</sub> = 120 V ac V <sub>out</sub> = 14 V	Efficiency (use actual measured data)	82 %		

### Buck Boost Version (NCL30082BB1GEVB)

Test Condition	Test Variable	Test Limits		Pass/Fail
		Min	Max	
V <sub>in</sub> = 100 V ac	Output Current	190 mA	200 mA	
V <sub>in</sub> = 120 V ac	Output Current	190 mA	200 mA	
V <sub>in</sub> = 265 V ac	Output Current	190 mA	200 mA	
V <sub>in</sub> = 265 V ac	Power Factor	0.70		
V <sub>in</sub> = 120 V ac V <sub>out</sub> = 55 V	Efficiency (use actual measured data)	87 %		

$$\text{Efficiency} = \frac{V_{out} \times I_{out}}{P_{in}} \times 100\%$$