

Test Procedure for the NCP10672 demo boards

ON Semiconductor®



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The following steps detail the test procedure for all these boards:

Necessary Equipment:

- 1 Current limited 90 ÷ 265Vrms AC source (current limited to avoid board destruction in case of a defective part) (e.g. AGILENT 6811)
- 1 AC Volt-Meter able to measure up to 300V AC. (e.g. KEITHLEY 2000)
- 1 AC Amp-Meter able to measure up to 3A AC. (e.g. KEITHLEY 2000)
- 4 DC Volt-Meter able to measure up to 20V DC. (e.g. KEITHLEY 2000)
- 4 DC Amp-Meter able to measure up to 500 mA DC. (e.g. KEITHLEY 2000)
- 4 DC Electronic Load 0 - 1A (e.g. AGILENT 6060B)

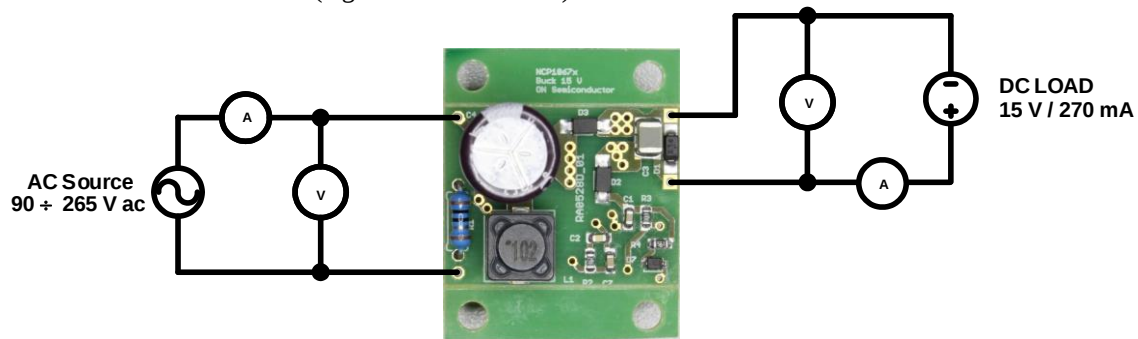


Figure 1: Test Setup for 15 V Buck Converter

Test Procedure (Flyback convertor):

1. **Connect the test setup as shown in Figure 1.**
2. **Apply an input voltage, $U_{in} = 90 - 265V_{ac}$**
3. **Apply $I_{out}(load) = 0A$**
4. **Check that U_{out} is Maximum 16 V**
5. **Increate $I_{out}(load)$ load to: 270 mA**
6. **Check that U_{out} is 15 V**
7. **Power down the load**
8. **Power down U_{in}**
9. **End of test**

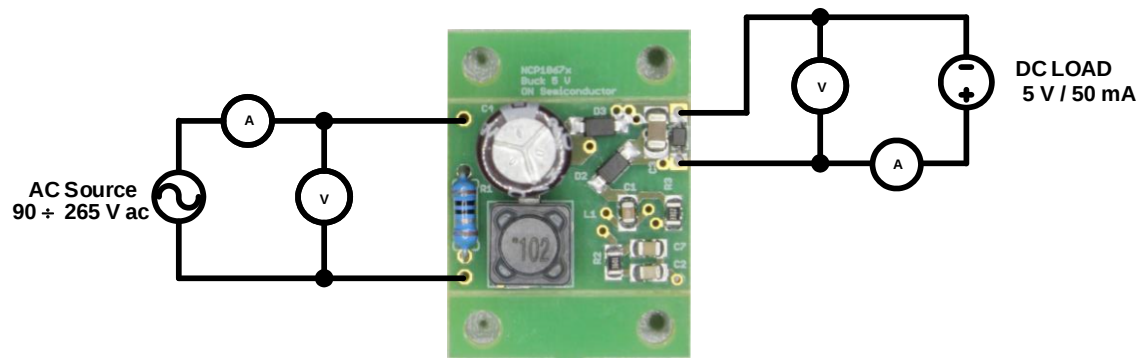


Figure 2: Test Setup for 5 V Buck Converter

Test Procedure (Buck convertor):

1. Connect the test setup as shown in Figure 1.
2. Apply an input voltage, $U_{in} = 90 - 265 \text{ V ac}$
3. Apply $I_{out}(\text{load}) = 0 \text{ A}$
4. Check that U_{out} is Maximum 6 V
5. Increase $I_{out}(\text{load})$ load to: 50 mA
6. Check that U_{out} is 5 V
7. Power down the load
8. Power down U_{in}
9. End of test