

# Test Procedure for the NCP4305 Evaluation board NCP4305FBDAPGEVB

ON Semiconductor®



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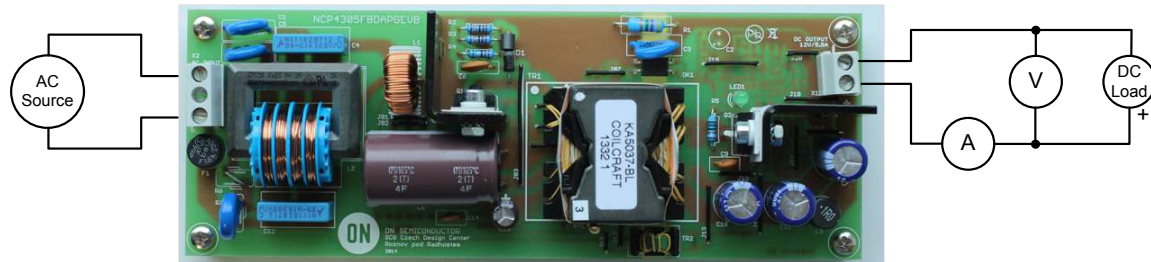


Figure 1: Test Setup

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

## Required Equipment:

Current limited AC Power Supply (e.g. AGILENT 6811B)	1pc
DC Volt-Meter able to measure up to 20 V DC (e.g. KEITHLEY 2000)	1pc
DC Amp-Meter able to measure up to 6 A DC (e.g. FLUKE 89 IV)	1pc
DC Volt-Meter able to measure up to 20 V DC (e.g. FLUKE 89 IV)	1pc
DC Electronic Load (e.g. AGILENT 6060B)	1pc

## Test Procedure:

1. Connect the test setup as shown in Figure 1.
2. Apply an input voltage,  $V_{IN} = 85 \text{ Vac}$
3. Apply  $I_{OUT}(\text{load}) = 100 \text{ mA}$
4. Check that  $V_{OUT} = 12 \text{ Vdc}$
5. Set  $I_{OUT}$  to 5.5 A
6. Check that  $V_{OUT} = 12 \text{ Vdc}$
7. Apply an input voltage,  $V_{IN} = 230 \text{ V}$
8. Check that  $V_{OUT} = 12 \text{ Vdc}$
9. Check voltage at points according to Figure 2. It should be around 6 V.
10. Change load mode to resistive mode
11. Apply  $R_{LOAD} = 1.3 \Omega$
12. Check  $V_{OUT} = \sim 7.6 \text{ V}$ ,  $I_{OUT} = \sim 5.9 \text{ A}$
13. Disconnect DC load
14. Check if  $V_{OUT}$  slowly decreases down to 3 V and then quickly rises to 12 V
15. Turn off  $V_{IN}$
16. End of the test

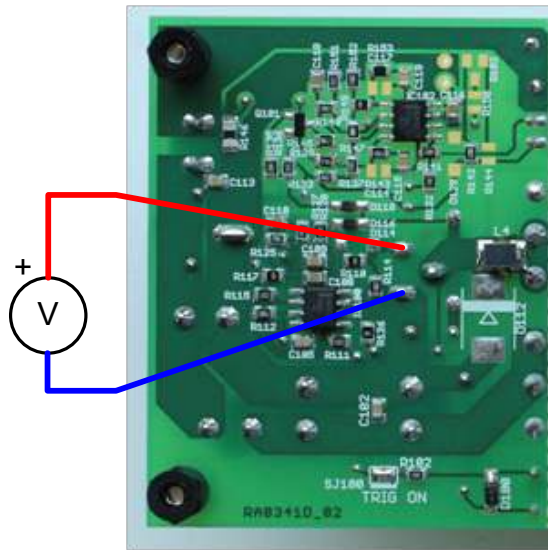


Figure 2: Measure points