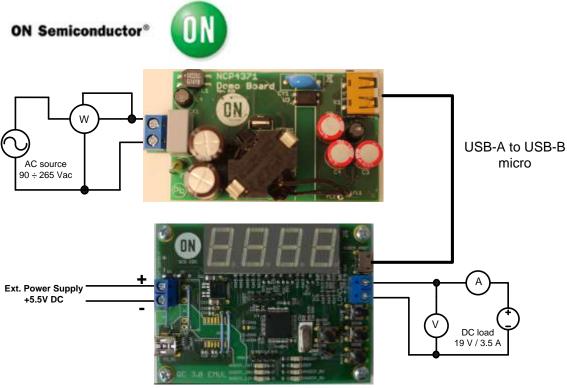
## Test Procedure for the NCP4371QC30GEVB Demoboard



**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) · · · · · · · · 1	pc
DC Volt-Meter able to measure up to 60 V DC (e.g. KEITHLEY 2000) · · · · · 1	pc
DC Amp-Meter able to measure up to 5 A DC (e.g. FLUKE 89 IV)	рс
Watt-Meter (e.g. Yokogawa WT210)·······1	рc
DC Electronic Load (e.g. AGILENT 6060B) · · · · · 1	pc
QC3.0 EMULATOR · · · · · 1	рс

## **Test Procedure:**

- 1. Connect the test setup as shown in Figure 1.
- 2. Apply an input voltage, VIN = 120 Vac
- 3. Check  $V_{OUT}$ = 5.0 V +/- 0.2 V
- 4. Apply  $I_{OUT(load)} = 500 \text{ mA}$
- 5. Check  $V_{OUT} > 4.5 \text{ V}$
- 6. Check efficiency that Eff > 80%
- 7. Apply  $I_{OUT(load)} = 2 A$
- 8. Check  $V_{OUT} > 4.5 \text{ V}$
- 9. Check efficiency that Eff > 82%
- 10. Apply  $I_{OUT(load)} = 1 A$

- 11. Push button MODE on QC3.0 Emulator, yellow LED HVDCP\_CNT is on
- 12. Push UP button several times and observe if VOUT increases in 200mV steps
- 13. Push DOWN button several times and observe if VOUT decreases in 200mV steps
- 14. Push button MODE on QC3.0 Emulator (2x), yellow LED HVDCP\_9V is on
- 15. Check V<sub>OUT</sub>> 8.5 V
- 16. Push button MODE on QC3.0 Emulator (1x), yellow LED HVDCP\_12V is on
- 17. Check V<sub>OUT</sub>> 11.5 V
- 18. Push button MODE on QC3.0 Emulator (1x), yellow LED HVDCP\_20V is on
- 19. Check V<sub>OUT</sub>> 11.5 V
- 20. Push button MODE on QC3.0 Emulator (1x), yellow LED HVDCP\_5V is on
- 21. Check  $V_{OUT} > 4.5 \text{ V}$
- 22. Increase an input voltage to VIN = 230 Vac
- 23. Apply  $I_{OUT(load)} = 2 A$
- 24. Check  $V_{OUT} > 4.5 \text{ V}$
- 25. Check efficiency that Eff > 82%
- 26. Turn off AC source
- 27. End of the test