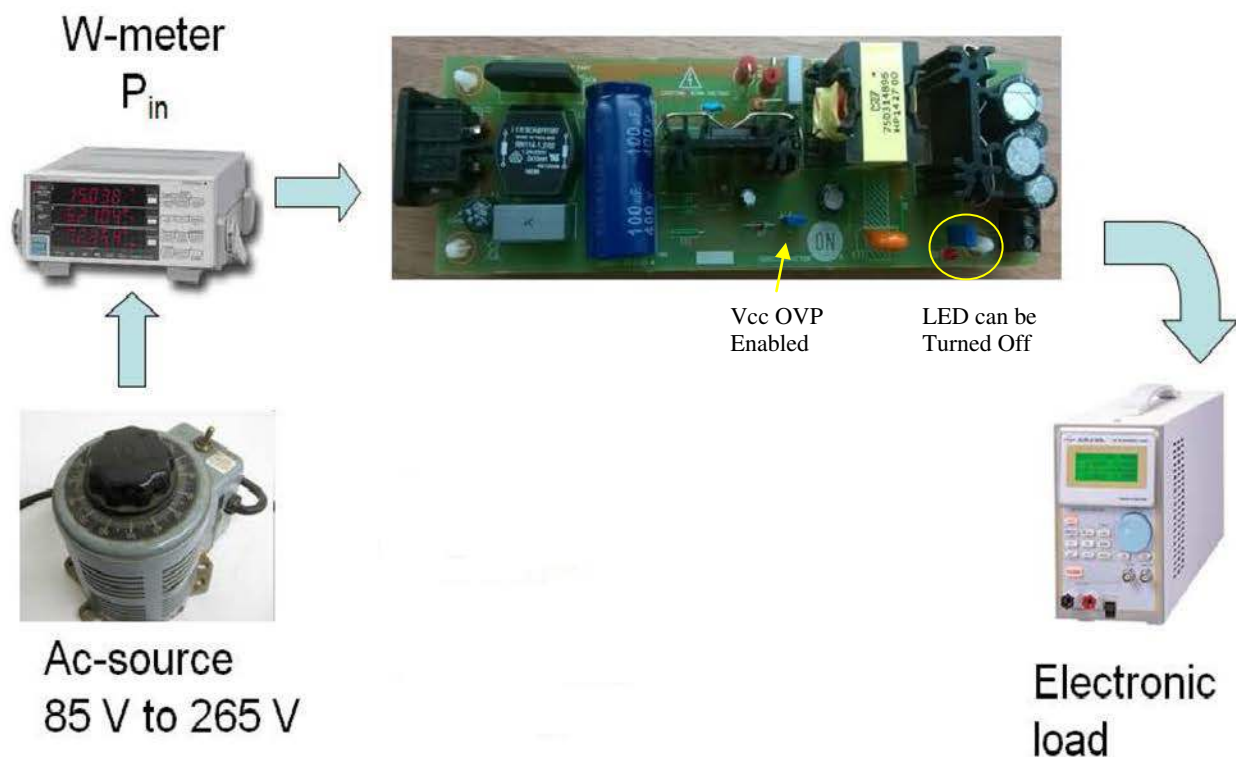




Test Procedure for the NCP1256B60WGEVB Evaluation Board

Equipment Required:

1. An ac source, delivering 80 V ac to 265 V ac, needed power is below 100 W. An electronic source or a simple variac can do.
2. An input ac watt-meter, up to 100 W
3. A dc load absorbing up to 100 W, $V_{in,max} < 30$ V, $I_{out,max} < 5$ A
4. Either the above load can display dc V and dc A or separated V and A-meters are necessary
 - *If the load does not use local Kelvin sensors, then the output voltage must be measured at the board level, not at the cable ends.*



Test Procedure:

Test n°1:

- Apply 90 V rms
- No output current
- Read output voltage:
 - ❖ $18.5 \text{ V} < V_{out} < 20 \text{ V}$
- Apply 230 V rms
- Repeat the above
- Let the board warm up for 15 mn
- Read input power, LED on
 - ❖ $50 \text{ mW} < P_{in} < 70 \text{ mW}$

**Test n°2:**

- Apply 90 V rms
- Load with 3.2 A
- Read output voltage and Pin:
 - ❖ $18.5 \text{ V} < V_{\text{out}} < 20 \text{ V}$
 - ❖ $65 \text{ W} < P_{\text{in}} < 75 \text{ W}$
- Apply 265 V rms
- Load with 3.2A
- Repeat the above

Test n°3:

- Apply 90 V rms
- Increase I_{out} while reading output voltage
- At a certain point, $I_{\text{out,max}}$, V_{out} collapses, the converter hiccups (typical is 4.2 A)
 - ❖ $3.9 \text{ A} < I_{\text{out,max}} < 5 \text{ A}$
- Apply 265 V rms
- Repeat the above steps
- The $I_{\text{out,max}}$ points slightly increases

Test n°4:

- Apply 90 V rms
- Apply a short-circuit at the output, usually via the dc load
- V_{out} must collapse, the converter tries to re-start (hiccup mode). Read the input power (watt-meter in average mode)
 - ❖ $5 \text{ W} < P_{\text{in}} < 15 \text{ W}$
- Apply 265 V rms
- Repeat the above steps

End Of Test