

Test Procedure for the NCP1027ATXGEVB

ON Semiconductor®



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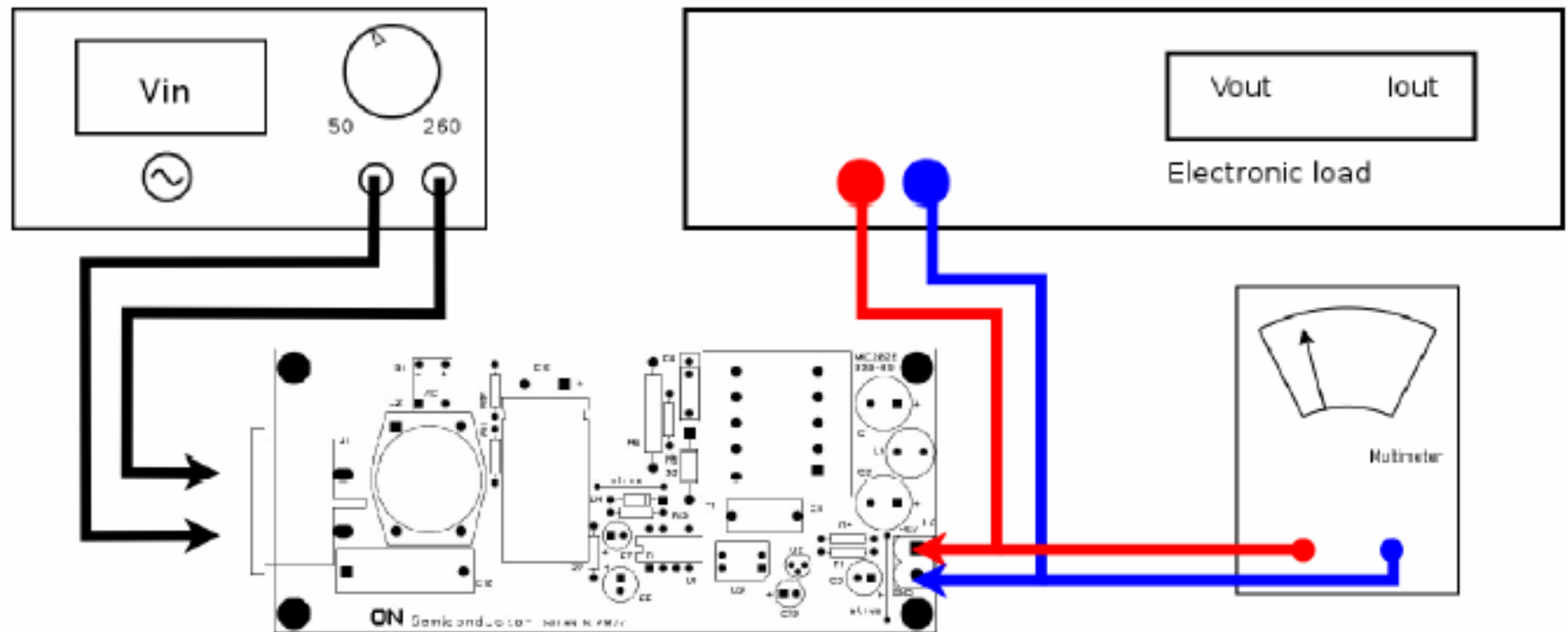


Figure 1: Test Setup

Table 1: Required Equipment

ac Power Supply, 85 V _{ac} – 265 V _{ac} , 1 A	Yokogawa Power Meter WT210	Multimeter
Electronic Load, 5 V up to 3 A	NCP1027ATX Evaluation Board	

Test Procedure:

- 1. Connect the test setup as shown in Figure 1.**
- 2. Apply an input voltage, $85 \text{ V}_{ac} < V_{IN} < 265 \text{ V}_{ac}$, 50 Hz or 60 Hz.**
- 3. Connect electronic load to output connector.**
- 4. Test the conditions given in Table 2.**

Table 2: Desired Results

	Measurments	Conditions	Results	Comments
1	Output Voltage	$V_{IN} = 100 V_{ac}$, no load	$V_{OUT} = 5 V \pm 5\%$	
2	Input consumption at high line and no load	$V_{IN} = 230 V_{ac}$, no load	$P_{IN} = 0.09 W \pm 15\%$, $V_{OUT} = 5 V$	No load measurment can fluctuate, run WT210 in average mode
3	Input consumption at high line line and low load	$V_{IN} = 230 V_{ac}$, $I_{load} = 0.1 A$	$P_{IN} = 0.83 W \pm 10\%$ $V_{OUT} = 5 V$ $P_{OUT} = 0.5 W$	
4	Output voltage at high line and full load	$V_{IN} = 230 V_{ac}$, $I_{load} = 2.5 A$	$V_{OUT} = 5 V \pm 5\%$	
5	Output voltage at low line and full load	$V_{IN} = 85 V_{ac}$, $I_{load} = 2.5 A$	$V_{OUT} = 5 V \pm 5\%$	
6	Brownout detection	$V_{IN} \downarrow$ until $V_{OUT} = 0 V$, $I_{OUT} = 2 A$	$V_{IN} = 56 V_{ac} \pm 15\%$	Output voltage must collapse under $56 V_{ac}$
7	Maximum output at low line	$V_{IN} = 85 V_{ac}$, $I_{OUT} \uparrow$	$P_{OUTmax} = 14 W \pm 15\%$	Output voltage must collapse above $14 W$
8	Maximum output at high line	$V_{IN} = 230 V_{ac}$, $I_{OUT} \uparrow$	$P_{OUTmax} = 18 W \pm 15\%$	Output voltage must collapse above $18 W$