imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



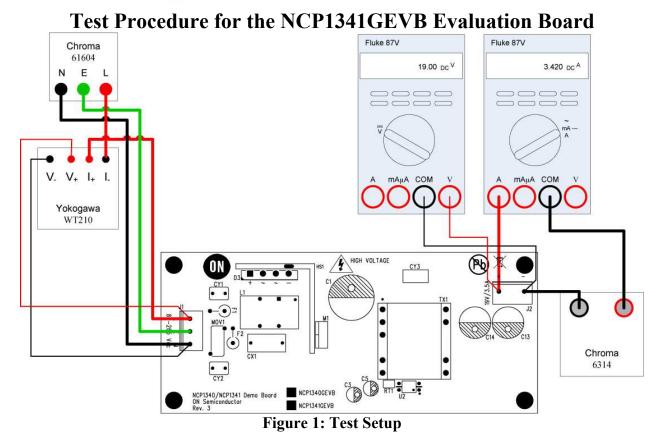
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Revision 0 - 7/12/2016



Table	1: Required Equipment	
*Chroma 61604 AC	*Yokogawa WT-210	*Fluke 87V True RMS
Power Source	Power Analyzer	Multimeter
*Fluke 87V True RMS	*Chroma 6314	NCP1341GEVB
Multimeter	Electronic Load	Evaluation Board

*Equivalent test equipment may be substituted.

Test Procedure:

ON Semiconductor

- 1. Connect the electronic load to the output labeled "19 V / 3.5 A".
- 2. Connect one of the multimeters in series with the output and load and set it to measure current.
- 3. Connect the second multimeter to the output and set it to measure voltage.
- 4. Connect the ac power source and power analyzer to the terminals labeled "Input". Set the current compliance limit to "Auto".
- 5. Set the ac power source to 90 Vac / 60 Hz.
- 6. Set the electronic load to 3.42 A.
- 7. Turn the AC source on.
- 8. Allow the board to warm up for approximately 30 minutes.
- 9. Wait for approximately 1 minute, and then measure the output voltage (V_{OUT}) using the corresponding multimeter. Verify it is within the limits of Table 2.
- 10. Measure input power (P_{IN}) using the power analyzer.
- 11. Measure V_{OUT} and I_{OUT} using the corresponding multimeters.
- 12. Calculate efficiency (**η**) using the equation: $\eta = \frac{I_{OUT} \cdot V_{OUT}}{P_{IN}} \cdot 100\%$
- 13. Repeat steps 9-12 with the ac source set to 115 Vac / 60 Hz, 230 Vac / 50 Hz, 265 Vac / 50 Hz. Verify the results are within the limits of Table 2.
- 14. Turn off the ac source.
- 15. Since high voltage will be present on the bulk capacitor (C1) after the voltage is removed, use a dc voltmeter to verify the voltage is less than 30 V before continuing.
- 16. Disconnect the ac source.
- 17. Disconnect the power analyzer.
- 18. Disconnect the electronic load.
- 19. Disconnect both multimeters.
- 20. End of test.





	Table 2: Desired Results		
For 90 Vac /	$V_{OUT} = 19 \pm 0.25 \text{ V}$		
60 Hz input,	η > 91.5%		
For 115 Vac /	$V_{OUT} = 19 \pm 0.25 V$		
60 Hz input,	η > 92.5%		
For 230 Vac /	$V_{OUT} = 19 \pm 0.25 V$		
50 Hz input,	η > 92.5%		
For 265 Vac /	$V_{OUT} = 19 \pm 0.25 V$		
50 Hz input,	$\eta > 92\%$		

Table 2: Desired Results