

Test Procedure for the NCP2990EVB

ON Semiconductor®



09/13/2006

Output Power:

1. Set $V_p = 5\text{ V}$ to power supply connector (J1).
2. Set an $8\ \Omega$ load (resistance) on the output connector (J5).
3. With the function generator, set a single ended signal at 1 kHz and 0.5 Vrms input signal on the negative input. Apply this signal either on J2 or J3 connector. As $R1=R2=20\text{k}$, VO1 will see 0.5 Vrms. As VO1 signal is inverted by the second amplifier, VO2 will also see 0.5 Vrms with 180° delay. Thus, the load between VO1 and VO2 will see 1 Vrms.
4. Place 2 oscilloscope probes on the output (differential measurement). You should get a 1Vrms output signal with a “perfect sine wave.” That is to say no clipping at the minima and maxima of the sine wave.

Quiescent Current:

Check the quiescent current. Place an $8\ \Omega$ load, no input signal. V_p set to 5 V and J6 closed. You should measure around 1.7 mA.