

Test Procedure for the NCP2892EVB

ON Semiconductor®



06/26/2006

If you can only use a Function generator for the input signal:

1. Set $V_p = 5\text{ V}$ to power supply connector (J11).
2. Set an $8\ \Omega$ load (resistance) on the output connector (J5).
3. With the function generator, set a differential sine wave signal at 1 kHz and 0.1 Vrms input signal on each positive and negative inputs. Apply this differential signal on J3 connector. Thus, the signal applied to the amplifier is 0.2 Vrms. As $R_2=R_4=100\text{k}$ and $R_1=R_5=20\text{k}$, VO1 will see 1Vrms. As VO1 signal is inverted by the second amplifier, VO2 will also see 1Vrms with 180° delay. Thus, the load between VO1 and VO2 will see 2Vrms.
4. Place 2 oscilloscope probes on the output (differential measurement). You should get a 2Vrms output signal with a “perfect sine wave.” That is to say no clipping at the minima and maxima of the sine wave.
5. Check the quiescent current. Place an $8\ \Omega$ load, no input signal. V_p set to 5 V, should measure around 2 mA.