Test Procedure for the NCP 2809A/B

ON Semiconductor®

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Table 1: Required Equipment

Oscilloscope	Wave Function Generator	2 oscilloscope probes
Two 16 Ω loads	One NCP2809A/B Evaluation Board	Power Supply

NCP2809A: R1, R2, R3 and R4 must not be soldered. J1, J4 must be closed.
NCP2809B: R1, R2, R3 and R4 must be connected. J1 and J4 must be left opened.

Test Procedure:

1. **Connect J7 to Gnd (Device Off).**

2. **Set Vp = 5 V to power supply connector.**

3. **Set two 16 Ω load (resistance) on the 3 points output connector (J3).**

4. **With your Function Generator set a sine wave signal at 1 kHz and 500 mVrms input signal. Connect it to the input connector (J2): between IN_R and GND for the right output and once measured, between IN_L and GND for the left one.**

5. Connect J7 to Vp (Device On).

6. Place 2 oscilloscope probes on each output (Right & Left) and the virtual ground and you should get a 500 mVrms differential output signal with a "perfect sine wave" in case of A version. That is to say no clipping at the minimum and maximum of the sine wave. When using B version with R2=R4=20 kΩ and R1=R3=40 kΩ, you should get a 1 Vrms differential output signal.

7. During the test with the capless schematic, be careful not to connect the ground to the virtual ground on the output!

8. (Optional) To check the quiescent current, place two 16 Ω load, no input signal, Vp set to 5V. The current should measure around 1.9 mA.