

Test Procedure for the NCV68261 Evaluation Board

The NCV68261 is a Reverse Polarity Protection and Ideal Diode NMOS Controllers with optional High Side Switch function, intended as lower loss and lower forward voltage replacement for power rectifier diodes and mechanical power switches. The controller operates in conjunction with one or two N-channel MOSFETs. The applications offer protection against Reverse Current Flow and Negative Supply. The device also has integrated Undervoltage and Overvoltage Lockout features and an Enable pin for turning off the controller for minimal current consumption. This device is suitable for harsh automotive environments.

Necessary Equipment:

- 1x Power Supply or Sourcemeter up to 50 V with current limitation up to 5 A or according to the external load connected to the application
- 1x 5 V Power Supply for Enable (optional)
- 2x DC Volt-Meter able to measure up to 50 V DC
- 1x Arbitrary function generator (optional)
- 1x Oscilloscope (optional)

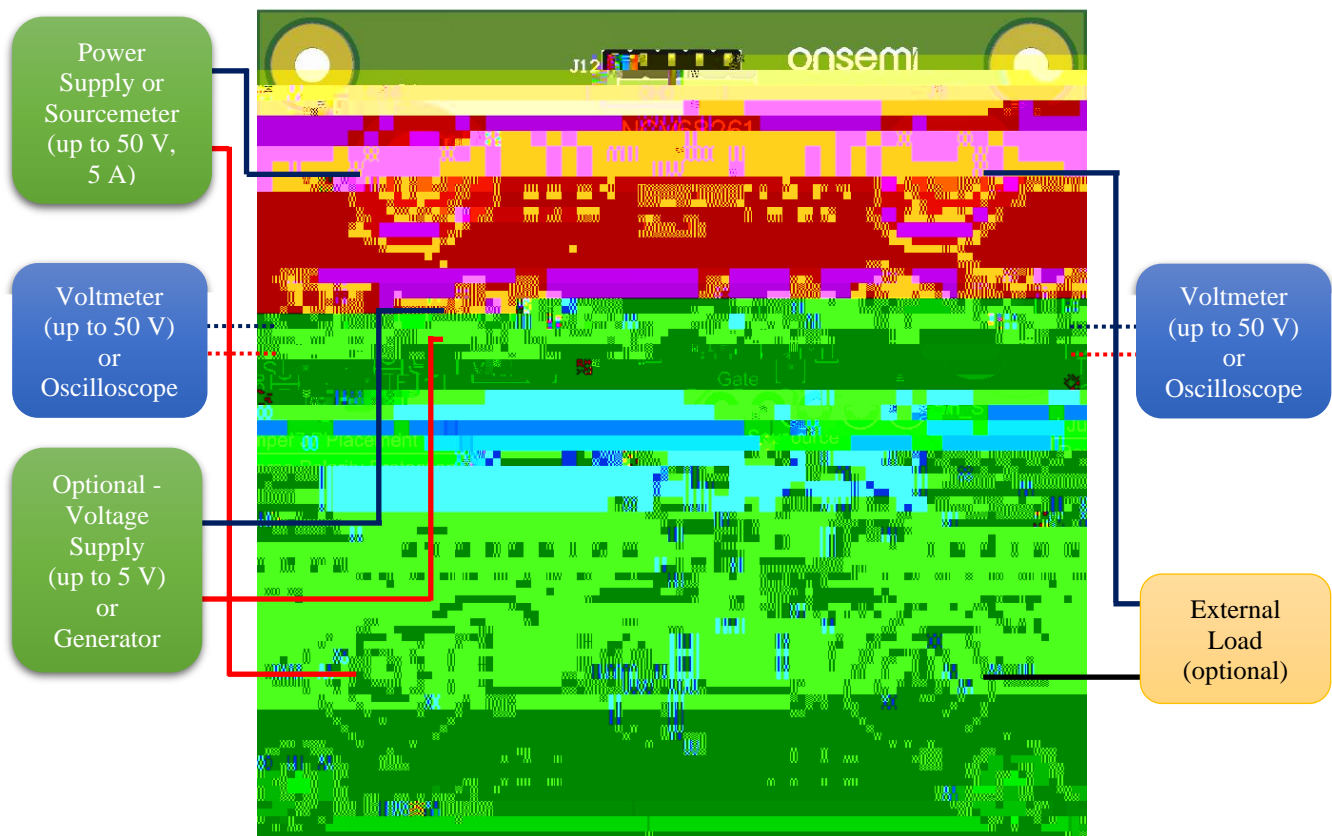


Figure 1. Test setup



Test Procedure:

1. Connect the test setup as shown in Figure 1.
2. Set the Vin Power Supply to any value between -18 V and 45 V, without exceeding the devices maximum ratings.
3. Select the desired protection mode via Jumper J7 – Ideal Diode or Reverse Polarity Protection only.
4. Turn on the Vin Power Supply.
5. Turn on the device by connecting Jumper J11 to the Vin or apply an external voltage to the EN pin.
6. Measure the desired voltages or currents in the circuit.
7. Turn off the Power Supplies connected to the device.
8. End of test.