ON Semiconductor®

# Test Procedure for the NCP4060AGEVB Evaluation Board

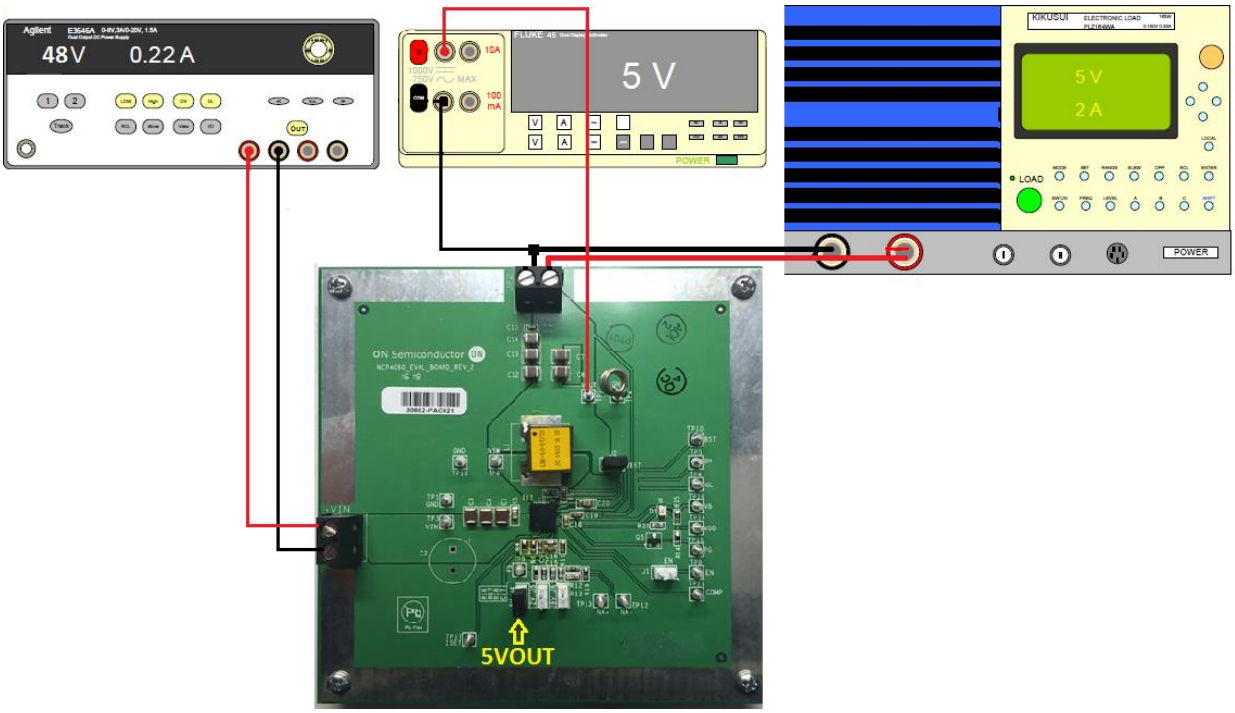


**Figure 1: Test Setup**

The Following steps describe the test procedure for the NCP4060A Board:

## Required Equipment:

Current limited High Voltage DC Power Supply (e.g AGILENT 6645A)…….. 1 pc

DC Volt-Meter able to measure up to 60V (e.g. KEITHLEY 2000)…….. 2pcs

DC Electronic Load ……..…… 1pc

## Optional Equipment:

DC Amp-Meter able to measure up to 5A DC (e.g FLUKE 89 IV)……..2pc

## Note:

Place Amp-Meters in series with Power Supply and Electronic Load to measure the currents

## Basic Test Procedure:

1. Connect the test setup shown in figure 1
2. Apply an input voltage, Vin = 48V at the VIN Terminals
3. Apply Iout (Load) = 0A
4. Check Output Voltage by measuring Vout As shown in Figure 1
5. Vout can be set to 5, 12 and 24V (See Figure2) in this setup Vout = 5V
6. Set Iout = 2A
7. Double Check Vout = 5V
8. Probe Switch Node (See Figure 3) Make sure regulator is stable
9. Turn off Load
10. Turn Off VIN
11. End of Test

## Selecting $V_{OUT}$ and Choosing an LDO input

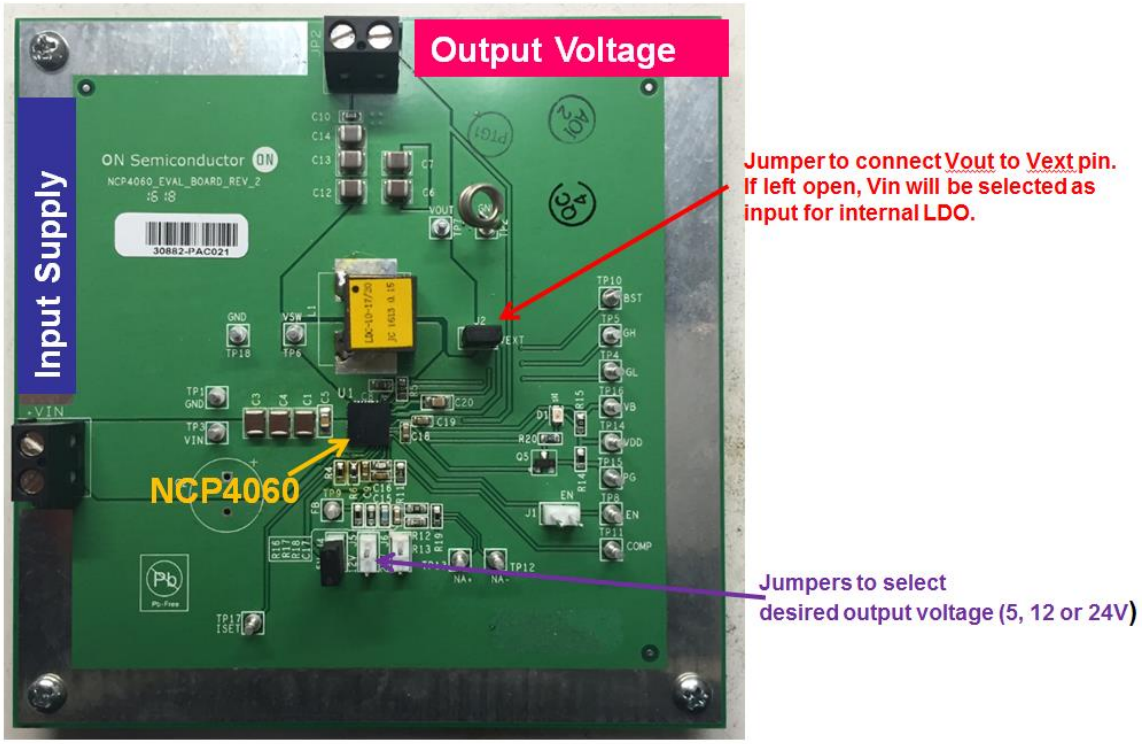


**Figure 2: VEXT Jumper and VOUT Jumpers**

If VEXT is connected to Vout the regulator's output voltage will be the input for the internal LDO as long as Vout is regulating at or above 7.5V, otherwise the part will switch to VIN as an input. If the VEXT jumper is left open, VIN will be selected as the input for the LDO.

**Note:** VCC and VIN are connected together on the EVB. (See Application Schematic) There are three jumpers to select the desired output voltage. The output voltage can be set to 5,12 or 24V (See figure 2)

# LDO Circuit:

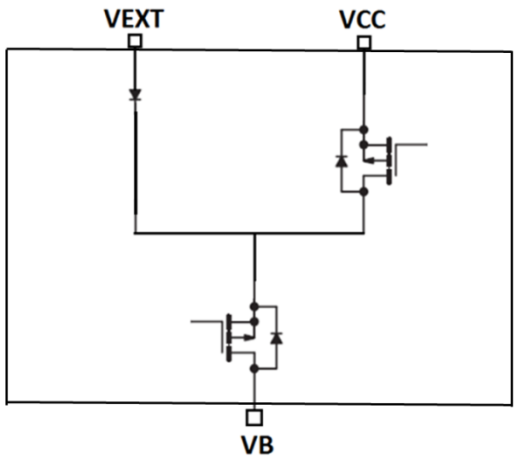


**Figure 3: Simplified Circuit explaining the LDO input switch over**

# ENABLE EVENT

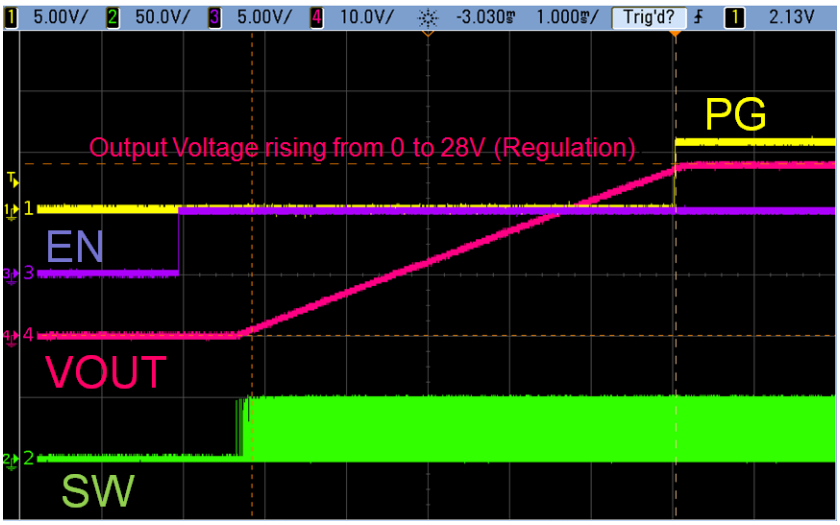


**Figure 4: Enable Event**