



Test Procedure for the NCV30161GEVB Evaluation Board

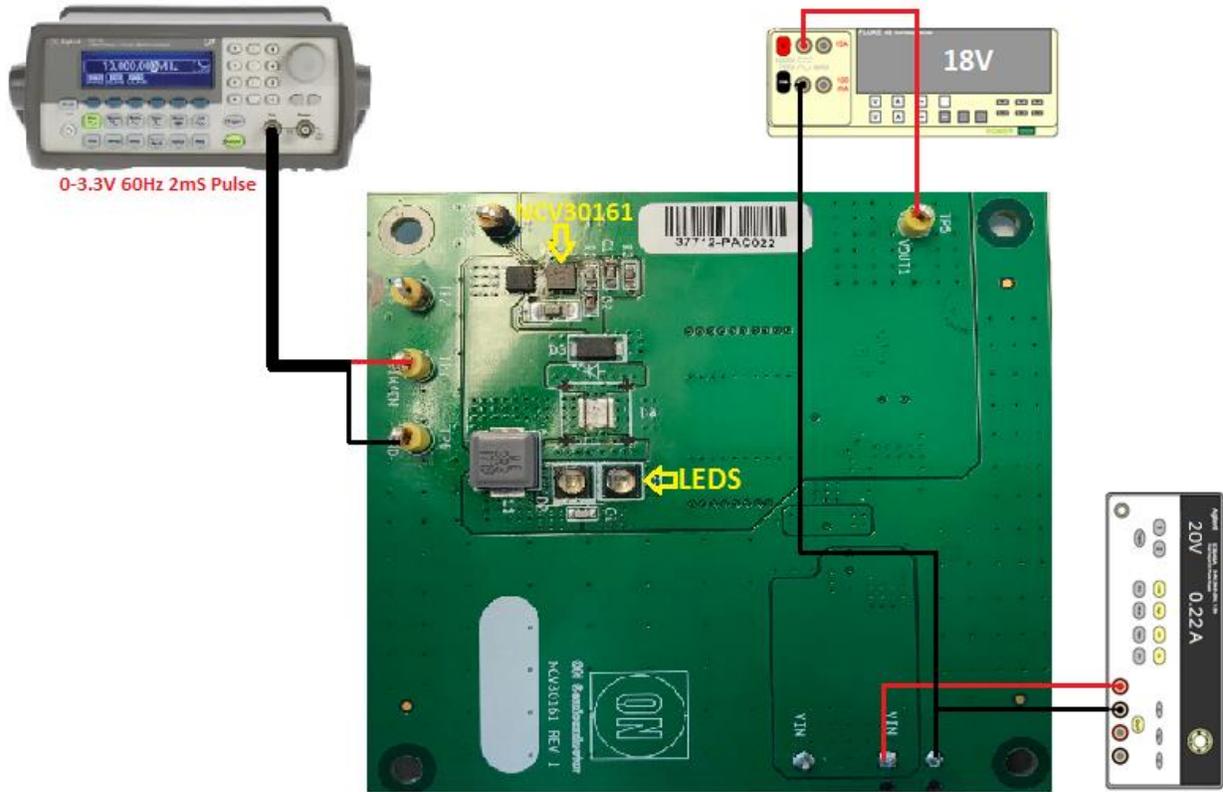


Figure 1: Test Setup

The Following steps describe the test procedure for the NCV30161 Board:

Required Equipment:

- Current limited DC Power Supply (e.g. AGILENT 6645A).....1pc
- DC Volt-Meter able to measure up to 60V (e.g. KEITHLEY 2000)..... 1pc
- Function Generator (e.g. KEYSIGHT TECHNOLOGIES 33210A).....1pc

Optional Equipment:

DC Amp-Meter able to measure up to 5A DC (e.g FLUKE 89 IV).....1pc

Note:

Place Amp-Meter in series with Power Supply to measure the current for efficiency measurements

Basic Test Procedure:

1. Connect the test setup shown in figure 1
2. Program the dimming pulse by selecting the pulse option on the function generator and setting a 2mS On-time, 60Hz and 3.3V_{pkpk} and enable the output on the function generator
3. Apply an input voltage, $V_{in} = 20V$ at the VIN Terminal
4. Check the LDO's (NCV47821) output voltage (V_{out}) as shown in Figure 1
5. V_{out} is programmed to regulate at around 18V
6. V_{out} is the NCV30161's input voltage
7. Probe CS and DIM/EN by syncing on DIM to make sure the LED driver is stable

Note:

Disabling the Function Generator's output while VIN is enabled sets the current through the LED string to $0.2V/R_{sense}$. In this case R_{sense} is 200mohm therefore $I_{LED} \sim 1A$.