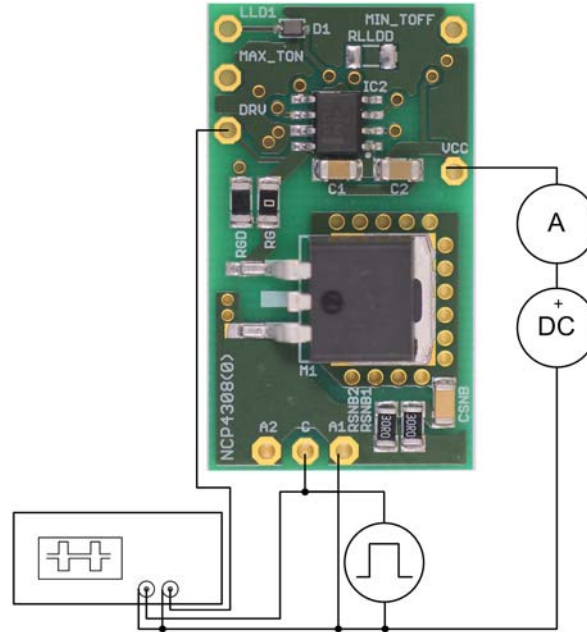




08/06/2016

## Test Procedure for the NCP43080FLYGEVB Evaluation Board



**Figure 1: Test Setup**

The following steps describe the test procedure for all these boards:

**Required Equipment:**

DC voltage source (e.g. STATRON 2229) .....	1pc
DC Amp-Meter (e.g. KEITHLEY 2000).....	1pc
Function generator (e.g. AFG3252) .....	1pc
2 channel oscilloscope .....	1pc

**Test Procedure:**

1. Connect the test setup as shown in figure 1.
2. Apply an supply voltage,  $V_{CC} = 12\text{ V}$
3. Apply pulse from generator (pulse,  $f = 100\text{ kHz}$ ,  $DC = 50\%$ ,  $V_{LOW} = -1\text{ V}$ ,  $V_{HIGH} = 9\text{ V}$ , output impedance = high Z)
4. Check that  $I_{CC} = 8 - 10\text{ mA}$ , waveforms look like in figure 2 (DRV pulse may oscillate between 1.5 us and 5 us)
5. Set DC to 17%
6. Check that  $I_{CC} = \sim 1.7\text{ mA}$ , waveforms look like in figure 3 (no DRV pulses)

7. Set DC to 90%
8. Check that  $I_{CC} = 8 - 10 \text{ mA}$ , waveforms look like in figure 4 (DRV pulses width is  $1.5 \text{ us}$ )
9. Set DC to 97%, frequency to  $5 \text{ kHz}$
10. Check that  $I_{CC} = \sim 1.7 \text{ mA}$ , waveforms look like in figure 5 (DRV pulses width is  $\sim 5 \text{ us}$ , DRV amplitude decrease to  $\sim 5 \text{ V}$ )
11. Set DC to 99%, frequency to  $1 \text{ kHz}$ ,  $V_{CC} = 9 \text{ V}$
12. Check that  $I_{CC} = \sim 70 \text{ uA}$ , waveforms look like in figure 6 (no DRV pulses)
13. Turn off  $V_{CC}$
14. End of the test

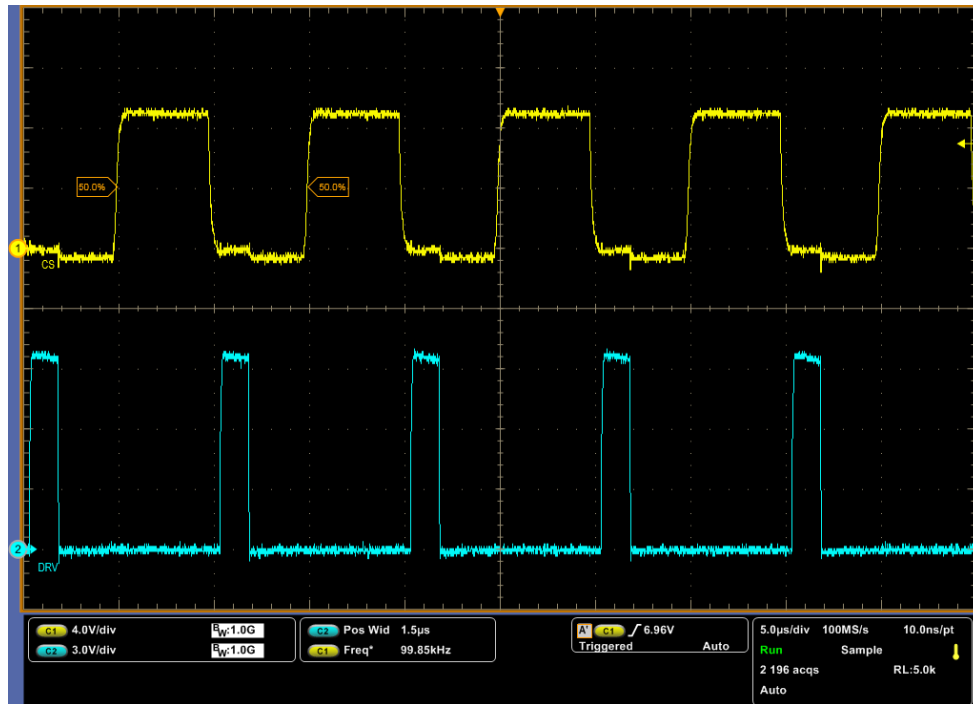


Figure 2:  $V_{CC} = 12 \text{ V}$ ,  $f = 100 \text{ kHz}$ ,  $\text{DC} = 50\%$ ,  $V_{\text{LOW}} = -1 \text{ V}$ ,  $V_{\text{HIGH}} = 9 \text{ V}$

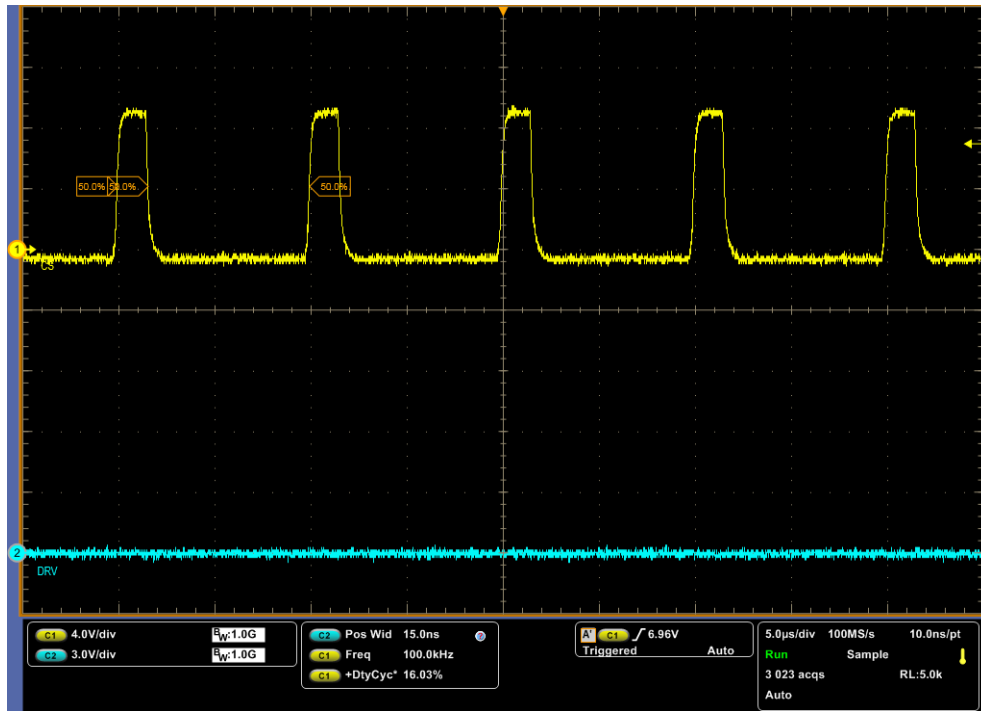


Figure 3:  $V_{CC} = 12\text{ V}$ ,  $f = 100\text{ kHz}$ ,  $DC = 17\%$ ,  $V_{LOW} = -1\text{ V}$ ,  $V_{HIGH} = 9\text{ V}$



Figure 4:  $V_{CC} = 12\text{ V}$ ,  $f = 100\text{ kHz}$ ,  $DC = 90\%$ ,  $V_{LOW} = -1\text{ V}$ ,  $V_{HIGH} = 9\text{ V}$

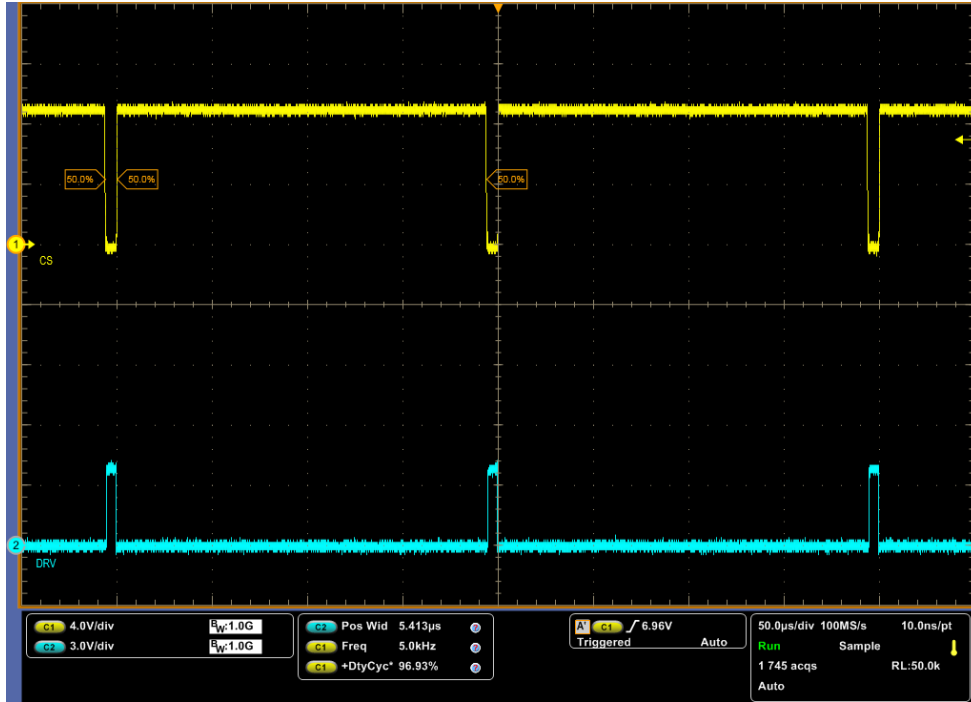


Figure 5:  $V_{CC} = 12\text{ V}$ ,  $f = 5\text{ kHz}$ ,  $DC = 97\%$ ,  $V_{LOW} = -1\text{ V}$ ,  $V_{HIGH} = 9\text{ V}$

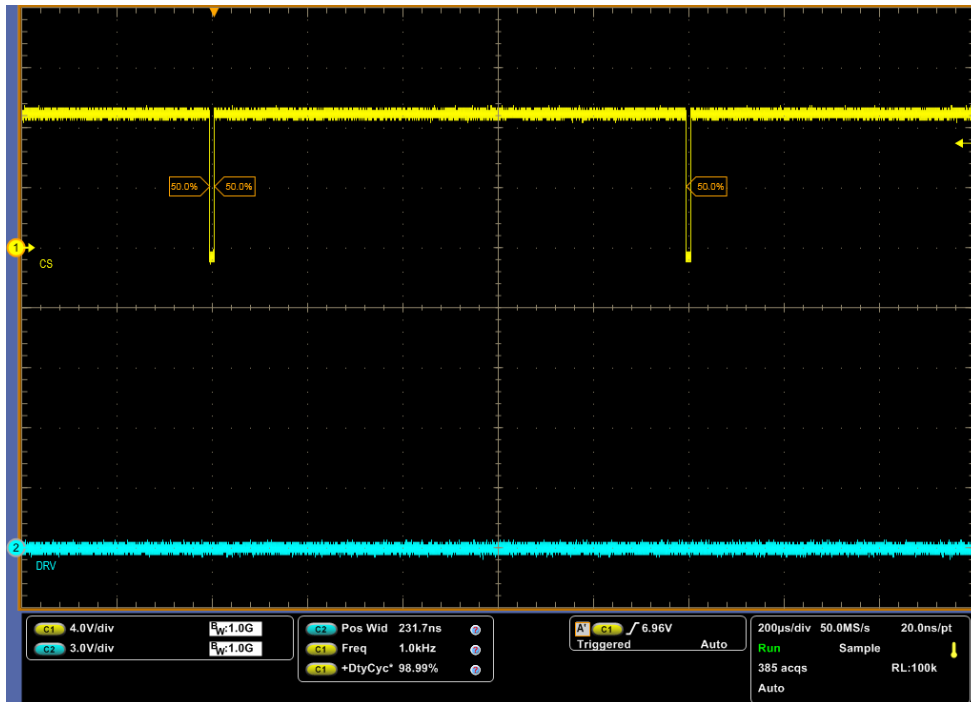


Figure 6:  $V_{CC} = 9\text{ V}$ ,  $f = 1\text{ kHz}$ ,  $DC = 99\%$ ,  $V_{LOW} = -1\text{ V}$ ,  $V_{HIGH} = 9\text{ V}$