

Test Procedure for the NCV78763R1GEVK

Required Equipment:

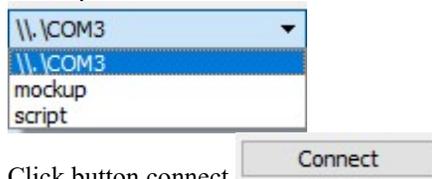
- Bench power supply with current limitation of 3A minimum or with huge output capacitor
- Complete set of boards from which NCV78763R1GEVK evaluation kit is consisting:
 - NCV78763R1DAGEVB: NCV78763 Daughter Board
 - NCV78XXXBSTR1GEVB: ‘Dummy Booster’ Board
 - NCV78XXXDRVR1GEVB: LED Driver Mother Board
 - ONCTRLDILR1GEVB: MCU Control Board
 - LEDMODULE6R1GEVB: LED module 6 LEDs round shape
- GUI SW LED Driver EVK installed on PC

Initial setup:

1. Put all boards together, connect LED module to output
2. Connect power supply to VBAT (positive) and GND (negative) 4mm bananas, set voltage to 13 V with current limitation app. 2 A and switched it on
3. Connect USB mini cable to ONMCU_DIL control board

4. Start GUI SW LED Driver EVK. In status bar click icon  to refresh information about available virtual COM ports.

Select port where EVK is connected:



Click button connect

5. The detected boards should appear automatically in GUI SW.
6. Click on graphical representation of NCV78763 daughter board or select it in menu “Application” via “NCV78763 (BUCK-BOOSTER)” item. Window allowing high level control of application and access to all registers will appear.

Test procedure

7. Check whether SPI communication is working correctly:
 - a. Go to “Status registers” tab and click “Read all” button. In the register REVID (Address 1Ahex) the REVID corresponding to used device on daughter board should appear.
8. Try to switch on the LEDs:
 - a. Connect LED module to channel 1 if not yet connected
 - b. On “Application” tab set Boost Voltage to 40 V, check by reading the VBOOST back by “Read ADC” button
 - c. For Buck channel 1 set Ripple to 20 usV, threshold to 80 mV, enable output by “BUCK_EN1”
 - d. Enable channel by putting LEDCTRL1 pin to log. 1
 - e. Output should be active and LED lighting
 - f. Repeat bullets c., d. and e. for the Buck channel 2
 - g. Put both LEDCTRLx pins to log. 0 to deactivate the outputs, switch off the booster by unchecking “BOOST_EN” check box and click “Disconnect” in status bar, disconnect mini USB cable and switch off power supply.