ON Semiconductor® ◯ **ON**

Test Procedure for the NV78763RLA11GEVK Evaluation Board

1.0 KIT PRODUCTION TEST PROCEDURE (PTP)

Before shipping, the whole **NCV78763 REF design LDM A KIT** must be tested according to the procedure described in the following sections.

1.1 KIT TEST SETUP

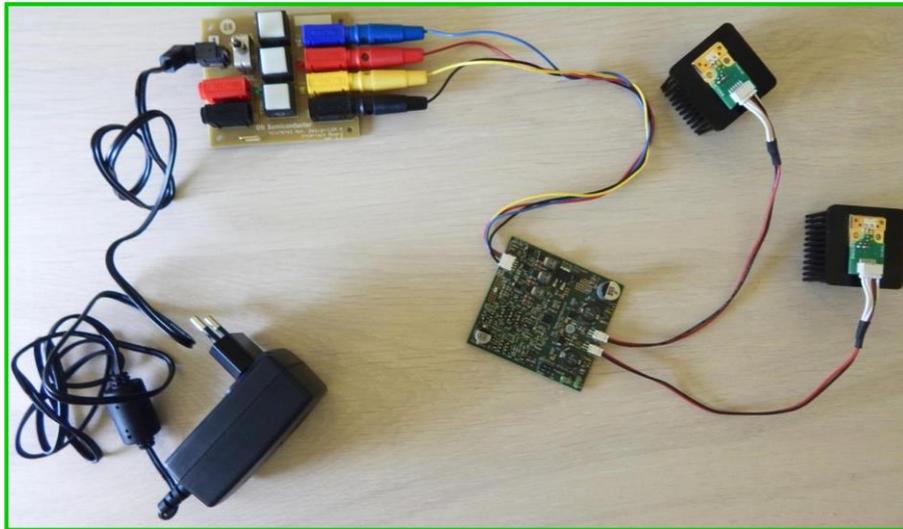Connect all items in the KIT to get to the setup indicated in the picture.

Figure 1 – NCV78763 REF DESIGN – Full setup for use and testing.

1.2 TESTING the FUNCTIONS

a) Connect a LAB bench Power supply to the banana connectors (hot/positive >>> RED, ground >>> BLACK). Set the current limitation to 3A and check that the interface board (ITEM B) has SW1 in its neutral position;

b) Set the power supply voltage to 13V, then turn it on and check that the current is lower than 5mA. The on board green led D1 should be lit;

c) By using the interface Board ITEM B, check that each of the buttons activates the dedicated function displayed on the corresponding PCB label (DRL function = "B2" button, PL function = "B1" button, TURN function = "B3" button). DRL and PL act on LED channel 1, whereas TURN controls LED channel 2. For each function, the corresponding on board led should lit (D2 = BLUE LED >>> PL function; D3 = RED LED >>> DRL function ; D2 = YELLOW LED >>> TURN function);

d) Test also the DRL, PL and OFF switch OFF position with the three-position switch named :SW1";

e) Referring to the LDM functions in c) and d), check that: for DRL the supply current is between 0.7A and 0.9A, for POS the current is between 20mA and 40mA, whereas for continuous TURN activation current is inside the limits 0.7A and 0.9A.

f) Verify that SW1 is back to its neutral position (OFF).

g) Turn off the power supply, disconnect the banana cables and plug the power supply "ITEM E" in an electrical socket and connect to J1 on the PCB. Verify that the on board green led D1 is lit.

For any error encountered, note down the step in which it occurred. This will be part of the Production Test Report (see next section).

1.3 PRODUCTION TEST REPORT (PTR)

At the end of the test procedure, a Production Test Report (PTR) must be generated. The **PTR** must contain the following information:

- LOT NUMBER;

- DATE;

- SERIAL NUMBER of NCV78763 DEVICE

- PTP of reference (with revision no);

- DEMO BOARD LABELS;

- TEST ENGINEER;

- For all the TEST step number, flag if some of the steps were unsuccessful and if so, provide the values found.

The **PTR** must be given in two formats: a **pdf** format and a **spreadsheet** format (can be opened by Excel).