



ON Semiconductor®

NV70501R10DBGEVB Evaluation Board Testing Procedure

Equipment and Instruments required:

- (1) NV70501R10DBGEVB Evaluation Board (DUT)
- (2) NCV7052XGEVK Automotive Stepper Motor Driver Kit
- (3) Function Generator – square wave signal 0 – 3.3V (Amplitude 3.3 V, Offset 1.65V), frequency 4 kHz
- (4) NCV70501 SW Application Support GUI

Testing Procedure:

- a) Install NCV70501 SWAS GUI (4) on your PC (see attached Quick Start Manual)
- b) Connect NCV7052XGEVK Evaluation Kit (2) to power supply and PC via ECUSIM MKII USB to SPI converter (see Manual)
- c) Connect Function Generator to “NXT” test point (it is located close to the inserted daughter board) and ground bar on EVK (2)
- d) Plug NV70501R10DBGEVB Evaluation Board (DUT) (1) into Stepper Motor Driver Kit (2).
- e) Run NCV70501 SW GUI (4), on tab “01 - Main” push “SPI INTERFACE CONNECT”, you should see message about successful connection to kit “USB to SPI Communicator Connected, DRV NAME: ECUSIM MKII 500”.
- f) On Tab “02 – APPLICATION CMD” push “READ ALL DIAGNOSTIC” to clear possible flags, set “R/H POL” bit to 1, select “IRUN = 300 [mA]” and push “UPDATE ALL & ENABLE MOTOR”
- g) If Motor rotates, the NV70501R10DBGEVB Evaluation Board is working properly and was successfully tested
- h) Push “DISABLE MOTOR & UPDATE ALL” to stop the motor