

Test Procedure for the NCP5612 Evaluation Board

ON Semiconductor



1/10/2008

Power Supply

Connect a DC power supply, with 500mA output current capability, across the two pins built with connector J2. Make sure the polarity is properly respected: reverse polarity will destroy the NCP5612. Set up the power supply to 3.6V. Although the supply voltage can be adjusted between 2.85V – 5.5V for engineering purpose, the associated MCU test board is limited to 3.6V: double check the power supply before to turn ON the supply.

Test Procedure:

1. Connect the IDC10/J1 connector to the external MCU board with the ribbon cable. Double check the power supply is set up at 3.6V, maximum rating is 3.8V. The MCU board is powered by the same external DC supply once the ribbon cable is attached on both boards.
2. Turn ON the power supply: LED D1 on the MCU board shall turns ON. Reset the MCU if necessary by pushing the RESET button S7.
3. Push control button F3: the two LED shall be activated.
4. Push control button F7: the two LED shall be dimmed until OFF.

Since bounces are generated by the manual push buttons, non-linear operation can happen during the test. This is normal and the part should NOT be rejected for such a reason.

Digital Control:

It is possible to drive the NCP5612 by means of an external controller, leaving aside the MCU test package. In this case, connect an external pulse generator to connector J1 /IDC10. The external controller shall send the data according to the SWIRE protocol depicted into the NCP5612 data sheet. The chip is capable to support a 100kHz transfer rate.

System Operation:

1. Double check the power supply is set up between 3.0V to 5.5V; make sure the external MCU can support the same power supply range.
2. Turn ON the power supply .
3. Send the appropriate data frame to control the two LED.

Note: the MCU board is reserved for manufacturing only and is NOT provided with the NCP5612 demo board