

DEFCON 27 Badge

Programming and Functional Test Procedure for Revision A

Refer to video demonstration at https://youtu.be/DhtWzAOCT0A

Joe Grand Document version 1.0, July 6, 2019

Initial Setup:

- 1. Attach USB cable between host computer and LPC-Link 2
- Attach Tag-Connect TC2050-IDC-NL-050-ALL to LPC-Link 2 connector J7

Test Procedure:

- Insert DUT with Tag-Connect footprint closest to operator
- 4. Apply power to DUT (+3.0 VDC to the +/- terminals of BT1, CR2032 Lithium coin cell battery, or equivalent)
- Plug down and hold Tag-Connect cable onto DUT's Tag-Connect footprint
- 6. Launch dc27_program.cmd icon on host computer
 - a. Host computer will indicate device is programming
 - b. Window will close if successful, otherwise will remain open
 - c. Error or no detection indicates failure at BT1, U2, U4 or associated components
- 7. After window closes, remove Tag-Connect cable
- 8. Piezo buzzer will play a beep sequence
 - a. No sound indicates failure at U2, R6, LS1
- 9. All LEDs on front of DUT will turn ON
 - a. Any LED not ON indicates failure at LED, U1, or associated components
 - b. Piezo buzzer BEEPING 5 times indicates failure at U1, U2, or associated components
- 10. LEDs will progressively turn OFF within 10 seconds
 - a. LEDs BLINKING 5 times indicates failure at U3, U5, or associated components
- 11. LEDs will slowly pulse ON and OFF in different patterns
- 12. Bring NFMI Test Disc to within 6 inches of DUT
 - a. Three LEDs on the right side should illuminate
 - b. Piezo buzzer will play a beep sequence
 - c. No detection indicates a failure at L4, U3, U5, or associated components
- 13. Disconnect DUT from power



