



Test Procedure for the CAT4137AEVB Evaluation Board

1. Jumper Configuration

1.1. Verify that there are no jumpers shunted on any of the pins.

2. Power Supply

2.1. Connect an external 4.2V DC power supply between the test points T1 (VIN) and T2 (GND). Connect the positive terminal of the supply to pin T1 and the negative terminal to pin T2. There is no protection against reverse voltage on the T1 and T2 terminals.

3. Test Procedure

- 3.1. Connect two LED strings (each string has 3 white LED in series) to the CAT4134. Connect the anode end of each string to test point T7 (VOUT). Connect the cathode end of one LED string to pin LED1 of jumper J10 and the other cathode end of the LED string to LED2 of jumper J10.
- 3.2. Press and hold button SW1 (EN) to enable the device. Both LED strings should light up. The CAT4134 circuit is enabled in "Movie Mode."
- 3.3. Rotate the cursor on potentiometer R2 (SET). The LEDs' brightness will change.
- 3.4. Verify the internal switching frequency ($F_{SW} \sim 1.0\text{MHz}$) using an oscilloscope probe connected between test points T9 (SW) and T8 (GND).
- 3.5. Monitor the voltage waveforms on test point T7 (VOUT) and T9 (SW).
- 3.6. Release the button SW1 (EN). The CAT4134 enters shutdown mode.
- 3.7. Press and hold button SW1 (EN). Then press the button SW2 (FLASH). The CAT4134 circuit will be enabled in "Flash mode" and the LEDs will generate a bright flash.
- 3.8. Rotate the cursor on potentiometer R4 (FLASH). The LEDs' brightness will change.
- 3.9. Release the buttons SW2 (FLASH) and then SW1 (EN). The CAT4134 enters shutdown mode.
- 3.10. Remove the LED strings and the jumpers J2 and J9 (upper and middle pin). The power LED PL is now connected.
- 3.11. Press and hold button SW1 (EN). Then press the button SW2 (FLASH). The CAT4134 circuit will be enabled in "Flash mode" and the LED will generate a bright flash.



- 3.12. Rotate the cursor on potentiometer R4 (FLASH). The LED's brightness will change.
- 3.13. Release the buttons SW2 (FLASH) and then SW1 (EN). The CAT4134 enters shutdown mode.