



Test Procedure for the FAN65008B-GEVB Evaluation Board

The FAN65008B-GEVB has a simple layout and allows access to the appropriate signals through test points. To evaluate the performance, follow the procedure below and refer to the figure.

1. Connect a power supply to the input terminals V_{in} and GND. Set V_{in} between 30V to 60V
2. Connect the positive terminal of the electronic load to V_{out} and negative terminal to GND.
3. There are 2 ways to enable the device
 - a. Use external voltage source of 2V~5V regardless of input voltage range
 - b. Use V_{IN} voltage divider. If so, 2 requirements need to be satisfied: J1 jumper be connected, $V_{IN} \geq V_{IN_UVLO}$
5. The evaluation board should now power up
6. Check for the proper output voltage of 5V(+/-1%) at the output terminals V_{out} and GND. Measurement can also be done with a multimeter with the positive and negative leads between V_{out} and GND.
7. Set the load to 6A through the electronic load. Check for the stable operation of the PH (SW) signal on the oscilloscope. Measure the switching frequency. A test point (TP16) is conveniently located at the head of the inductor.

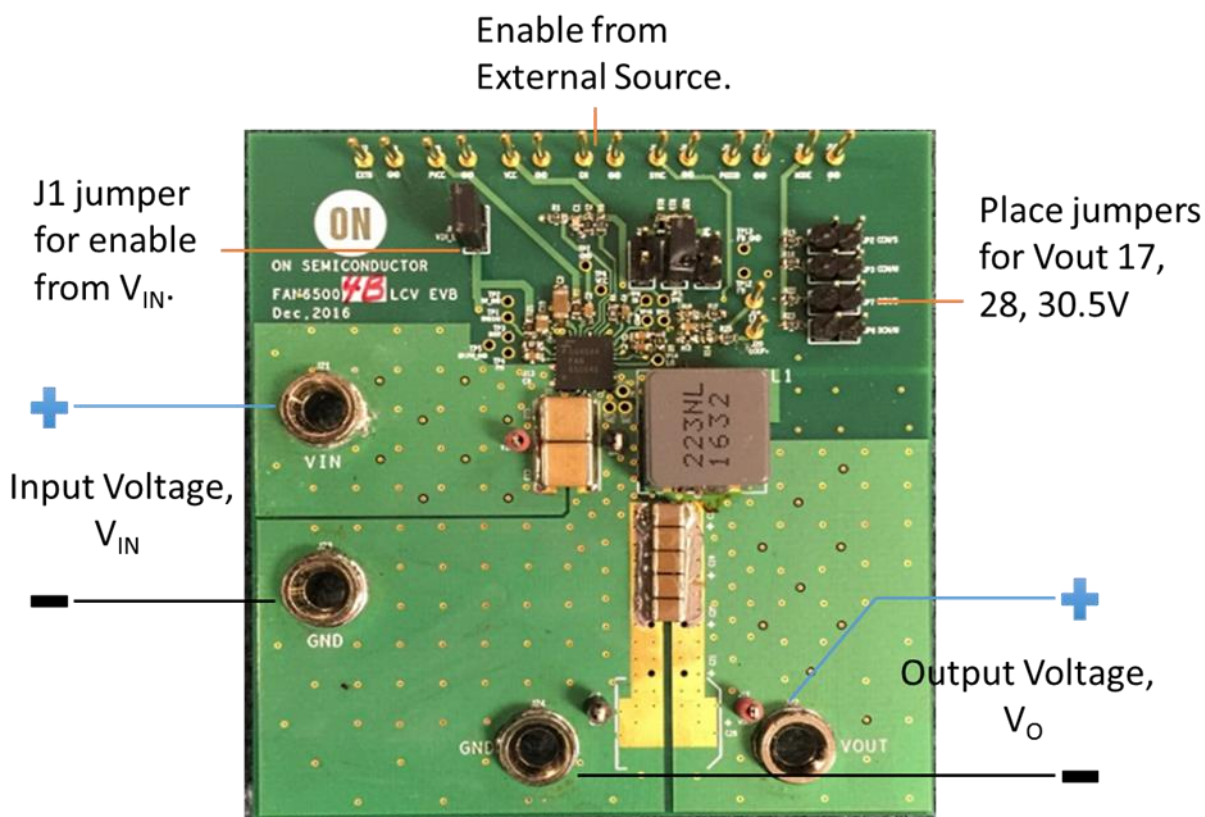


Figure 3. EVM board Connections

**Measurement/Performance Guidelines:**

- 1) The evaluation board has an easy access to measure AC analysis is required. Connect the injection signal across the resistor (R25) as shown and measure AC analysis through a network analyzer



- 2) When measuring the output voltage ripple, maintain the shortest possible ground lengths on the oscilloscope probe. Long ground leads can erroneously inject high frequency noise into the measured ripple.
- 3) For efficiency measurements, connect an ammeter in series with the input supply to measure the input current. Connect an electronic load to the output for output current