

Test Procedures for NCP565 ADJ Demonstration Board

ON Semiconductor



08/25/2003

The adjustable output voltage for this demo board is set at 3.3V based on the BOM. If other voltage value is desired, please choose different resistance values for R1 and R2. The output voltage is set according to the formula:

$$V_{OUT} = V_{REF} \times \left(\frac{R1 + R2}{R2} \right) - I_{Adj} \times R2$$

The adjust pin current, I_{adj} , is typically 30nA and normally much lower than the current flowing through R1 and R2, thus it generates a small output voltage error that can usually be ignored.

Test procedures for NCP565 ADJ demonstration board

1. Test equipments:

a. DC power supply b. 2 multi-meters c. Electrical Load d. Oscilloscope

2. Test procedures:

a. Connect the demo board as shown in Figure 1

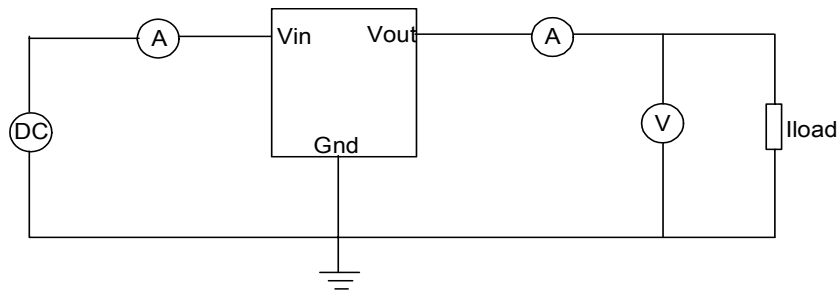


Figure 1: NCP565 Test Setup

b. Turn on the power supply to 5V and no load current. Check Vout is about 3.3V. If there is big difference from 3.3V, please check R1 and R2 and make sure they are in the right position.

c. Adjust load current from 10mA to 1.5A and use the scope to see NCP565 Pin 5(ADJ pin) voltage. Make sure it is in the range of 0.882V~0.918V (typical value is 0.9V) and no oscillation on it.