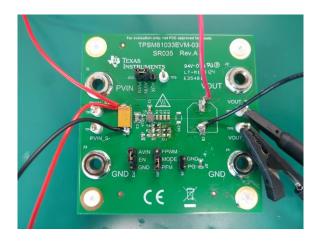
## 1. Test Condition

1) Input voltage: 3.0~2.0V 2) Output Voltage: 3.3V 3) Output Load: 0~500mA

2. TPSM81033EVM output voltage setting: 3.3V - Changed R3,R5 value: R3: 56K, R6: 390K



## 3. Test Result (Load Regulation Test)

| Input Voltage | Output Lo           | ad current<br>100mA | 200mA  | 300mA  | 350mA | 400mA | Remark   |
|---------------|---------------------|---------------------|--------|--------|-------|-------|--|
| 3.0V          | 3.292V              | 3.288V              | 3.281V | 3.273V | 3.26V | 3.24V | At 420mA Load, output voltage is dropped to 3.0v and ripple is about over 1V   |
| 2.5V          | Output vo<br>3.292V | ltage<br>3.289V     | 3.277V | Х      | Х     | Х     | At 250mA Load, output voltage is dropped to 2.4v and ripple is about over 1V   |
| 2.2V          | 3.291V              | 3.283V              | Х      | Х      | Х     | Х     | At 190mA Load, output voltage is dropped to 2.4v and ripple is about over 1V   |
| 2.0V          | 3.290V              | Х                   | Х      | Х      | Х     | Х     | At 190mA Load, output voltage is dropped to 2.3v and ripple is about over 0.5V |

## 4. Questions

1) Q1: Why is the output current too small at the load regulation test? In my test, at 3.0V input voltage, the load current is max 400mA. at 2.5V input voltage, the load current is max 200mA. at 2.2V input voltage, the load current is max 100mA. at 2.0V input voltage, the load current is max 40mA.

- 2) Q2 : Is the test result normal for the TPSM81033EVM-035 Evaluation Module ?
- 3) Q3 : What should we do to increase the output load current to over 500mA at the condition of the input voltage 1.8~3.3V and output voltage 3.3V ?

## < Output Voltage Waveform >



Output voltage waveform at the condition, input voltage: 3.0V, Load: 420mA



Output voltage waveform at the condition, input voltage: 3.0V, Load: 450mA



Output voltage waveform at the condition, input voltage: 2.0V, Load: 50mA