

Test Procedure for the LV5683PGEVB Evaluation Board

Prepare DC POWER SUPPLY, capability is 40V or more and 2.5A or more, Digital MULTIMETER, and ELECTRIC DC LOAD

1. Initial Setting

Refer to Fig1, In initial setting, “USB_EN”, “SWU_EN”, “AUDIO_EN” pins are shorted GND. And USB, AUDIO and SWU-OUT are low potential.

2. Measurement

Connect VCC/VCC1 cable and GND cable. Bias VCC/VCC1 voltage. Regarding bias voltage range, refer to Application note. Next step remove 3 “Shorted Ring”. Then measure each USB, AUDIO SWU-OUT of voltage and I_q at no load. And then refer to the descriptive text below.

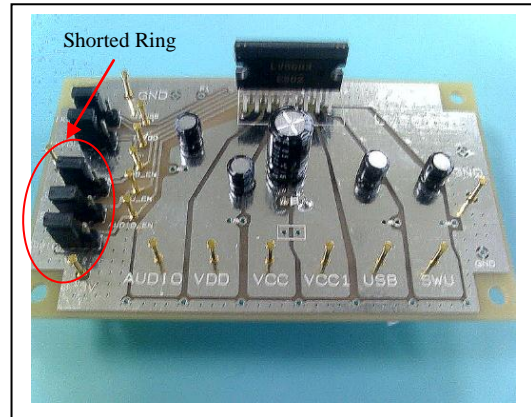


Fig1

Line regulation

Line regulation is defined as the maximum change in output voltage as the input voltage is varied through the specified range. It is measured by changing the input voltage and measuring the minimum/maximum voltage of the output. Line regulation is defined as the difference between maximum and minimum voltage.

Load regulation

Load regulation is defined as the maximum change in output voltage as the load current is varied through the specified range. It is measured by changing the load current and measuring the minimum/maximum voltage of the output. Load regulation is defined as the difference between maximum and minimum voltage.

Dropout voltage

Dropout voltage is defined as the minimum input-to-output differential voltage at the specified load current required by the regulator to keep the output voltage in regulation. It is measured by reducing input voltage until the output voltage drops below the nominal value.

Ripple rejection

Ripple rejection is defined as the ratio of input ripple amplitude versus that of output.