High Speed Amplifiers

THS4531DGK EVM Test Procedure

EDGE # 6528462, Board Rev. A

1/16/2012

Procedure Rev. A

Caution: Electrostatic Sensitive Components

This EVM contains components that can potentially be damaged by electrostatic discharge. Always transport and store the EVM in its supplied ESD bag when not in use. Handle using an antistatic wristband. Operate on an anti-static work surface.

CAUTION

1.1 Required Equipment

- One dual-output dc power supply (±2.50 V, 100 mA output minimum)
- Two dc current meters with resolution to 1 mA and capable of the maximum current the dc power supply can supply.
- 50 Ω source impedance function generator (1 MHz, 1 V_{PP} sine wave)
- Oscilloscope, 50 MHz bandwidth minimum, 50 Ω input impedance.
- 2 BNC to SMA cables
- Banana to Banana patch cords

1.2 Test Equipment Setup

1) Set the dual dc power supply to ±2.50 V. Set the current limit on the dc power supply to 100 mA.
2) Disable the ±2.50 V dc power supply output.
3) Set the function generator to generate a 1 MHz, ± 0.50V(1 V_{PP}) sine wave with no dc offset.
4) Verify that the output is 1 MHz, ± 0.50 V (1 V_{PP}).
5) Disable the function generator output.

1.3 Test Equipment Connection

1) Connect the positive (+) terminal of the power supply to the positive (+) terminal of current meter 1.
2) Connect the negative (–) terminal of current meter 1 to the VS+ terminal of the EVM (J9).
3) Connect the common ground terminal of the power supply to the ground (GND) terminal on the EVM (J8).
4) Connect the negative (–) terminal of the power supply to the negative (–) terminal of current meter 2.
5) Connect the positive (+) terminal of current meter 2 to the VS- of the EVM (J7).
6) Using a BNC–to–SMA cable, connect the function generator to J2 (Vin +) on the EVM.
7) Using a BNC–to–SMA cable, connect the oscilloscope channel 1 to J10 (Vout+) on the EVM.

1.4 Testing Vin+

1) Enable the ±2.50V dc power supply.
2) Verify that the shunt on JP1 is connected to the Vs+ (ON) side of JP1.
3) Verify that both current meter readings are ~250µA, 215µA min. to 350µA max, (with no load).
4) Enable the function generator output.
5) Verify the oscilloscope is showing a output voltage of ~13.5mVpp ±3mVpp with scope set on 50 ohms.
6) Turn the dc power supply off and unhook EVM.
7) Test complete.

ALL TESTS CONCLUDED

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