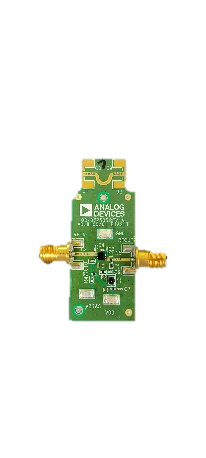
**Document No. : 18-073736-01 Rev A**

**Title : ADL8100-EVAL1Z Customer Evaluation Board Test Procedure**

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| --- | --- | --- | --- | --- |
| REVISION HISTORY | | | | |
| **Revision** | **ECR #** | **Description of Change** | **Date** | **Author** |
| B | ECR-113965 | Initial Release | 04/16/2023 | Love Syl Venenoso |
|  |  |  |  |  |
|  |  |  |  |  |

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| --- | --- |
| **Required Approvers** | |
| **Approver Roles** | **Approver Names** |
| Product Engineer | Love Syl L. Venenoso |
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| --- | --- | --- |
| **Model Name** | **C-Spec** | **Tester Program** |
| ADL8100-EVAL1Z | C-11149 A | ADL8100\_EVAL1Z.par |



VDD (PS1)

Network Analyzer

*Note: Not drawn to scale.*

**Test 1: S-Parameter Sweep**

**Equipment Needed:**

1 Power Supply – Keithley 2400 or its equivalent

1 2-port Network Analyzer – N5245B or its equivalent

**Setup:**

Connect the Network Analyzer as shown

Port 1 – RFIN

Port 2 – RFOUT

**Network Analyzer Settings:**

Min/Max Frequency: 10 MHz to 22 GHz

Number of Points: 501 points

Input Power: -25 dBm

**Setting up notes:**

1. Calibrate the Network Analyzer to compensate for the loss of both input and output cables.
2. Record the S11, S12, S21(Gain), S22 of the DUT. Compare the data with the plot below.

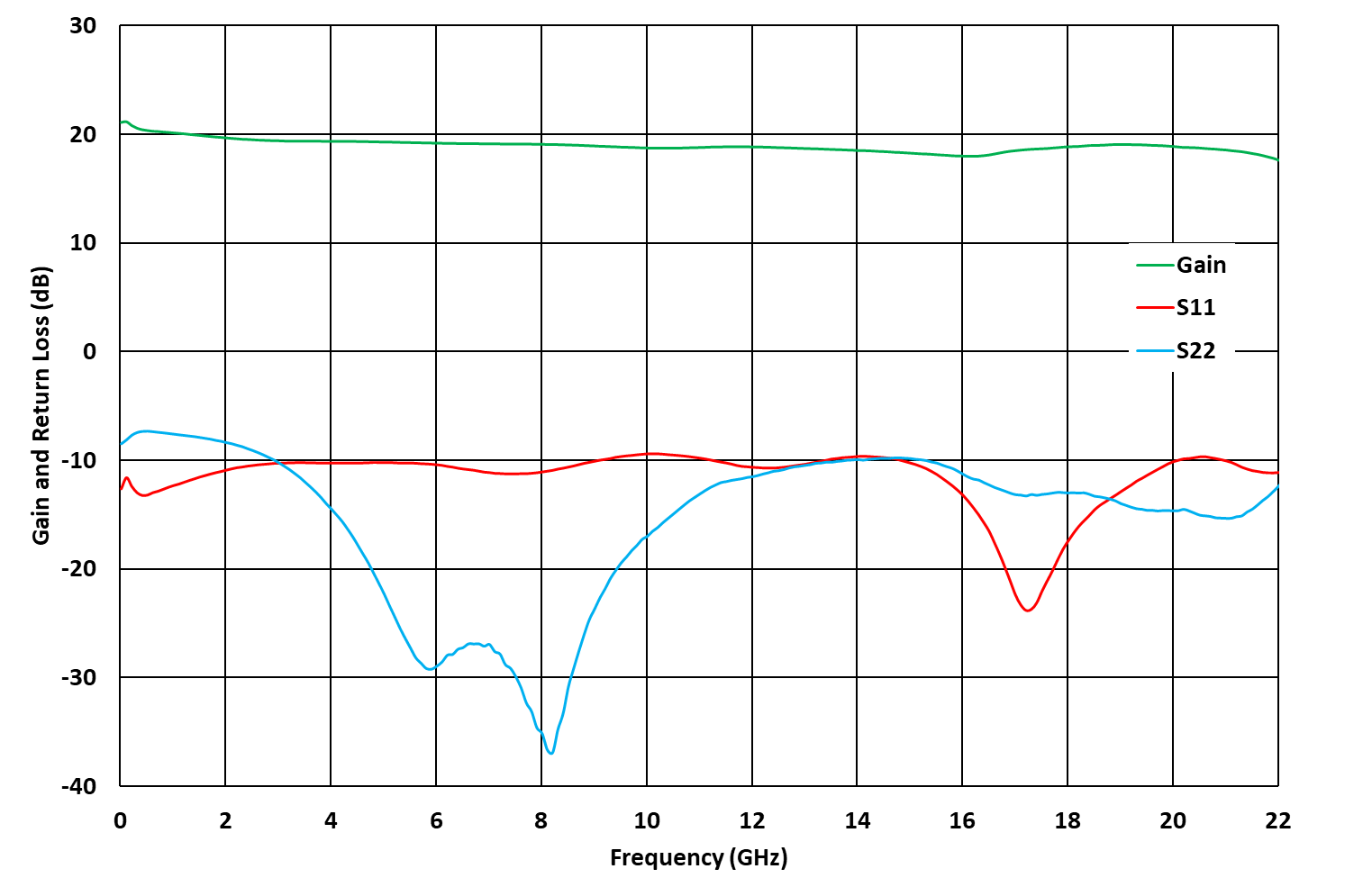
**Biasing steps:**

1. Turn on VDD = +5 V
2. Apply the RF signal.
3. Log the data.

**Power off:**

1. Turn off the RF signal.
2. Turn off VDD.

**S21, S11 and S22 plot**



**Test 2: ATE Setup**

**Equipment and Accessories Needed:**

1 Power Supply – Keithley 2400 or its equivalent

1 Signal Generator – Keysight E8267D or its equivalent

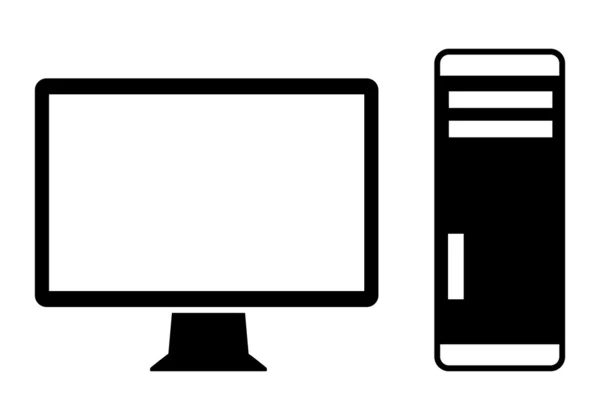
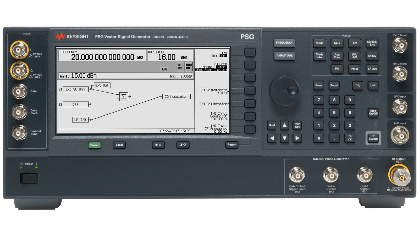
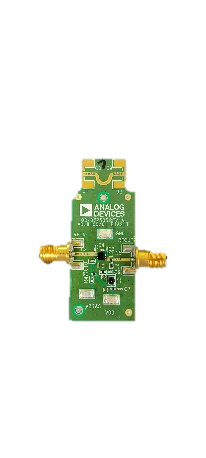
1 External Amplifier – N4985A or its equivalent

1 Power meter – Anritsu ML2496A or its equivalent

1 Power Sensor – Anritsu MA2445D or its equivalent

1 20 dB pad

Connect the setup as shown below.



RFIN

RFOUT

Computer

Power Meter

Amplifier

20 dB pad

Power Sensor

RF Source

VDD (PS1)

*Note: Not drawn to scale.*

**Test Parameters:**

