ST-FMR Experiment Log File

Date: 21-02-2022

Circuit 1: [Signal Generator] -> [SMA cable] -> [Oscilloscope]

Circuit 2: [Signal Generator] -> [SMA cable] -> [Single Diode Circuit] -> [SMA cable] -> [Oscilloscope]

**Experiment 1:**

RF: 1 MHz, Level: -2.25 dBm

Circuit 1

, ,

Circuit 2

, ,

LF: 1 MHz, I/P amplitude: 295 mV

Circuit 1

, ,

Circuit 2

, ,

**Experiment 2:**

RF: 1 MHz, Level: 0 dBm

Circuit 1

, ,

Circuit 2

, ,

LF: 1 MHz, I/P amplitude: 385 mV

Circuit 1

, ,

Circuit 2

, ,

Observation:

On using the Single Diode Rectifier circuit (SDRC002), there is too much voltage drop in case of RF than LF. As we can see that, in Exp. 1, for RF the voltage drop was 503 mV - 17 mV = 486 mV, while for LF the voltage drop was 499 mV – 75 mV = 424 mV. The same observation is seen in Exp. 2, RF voltage drop was 650 mV – 24 mV = 626 mV, and for LF voltage drop was 648 mV – 137 mV = 511 mV.