

TS3USB3031RMGR

High Speed Signal Conditioners

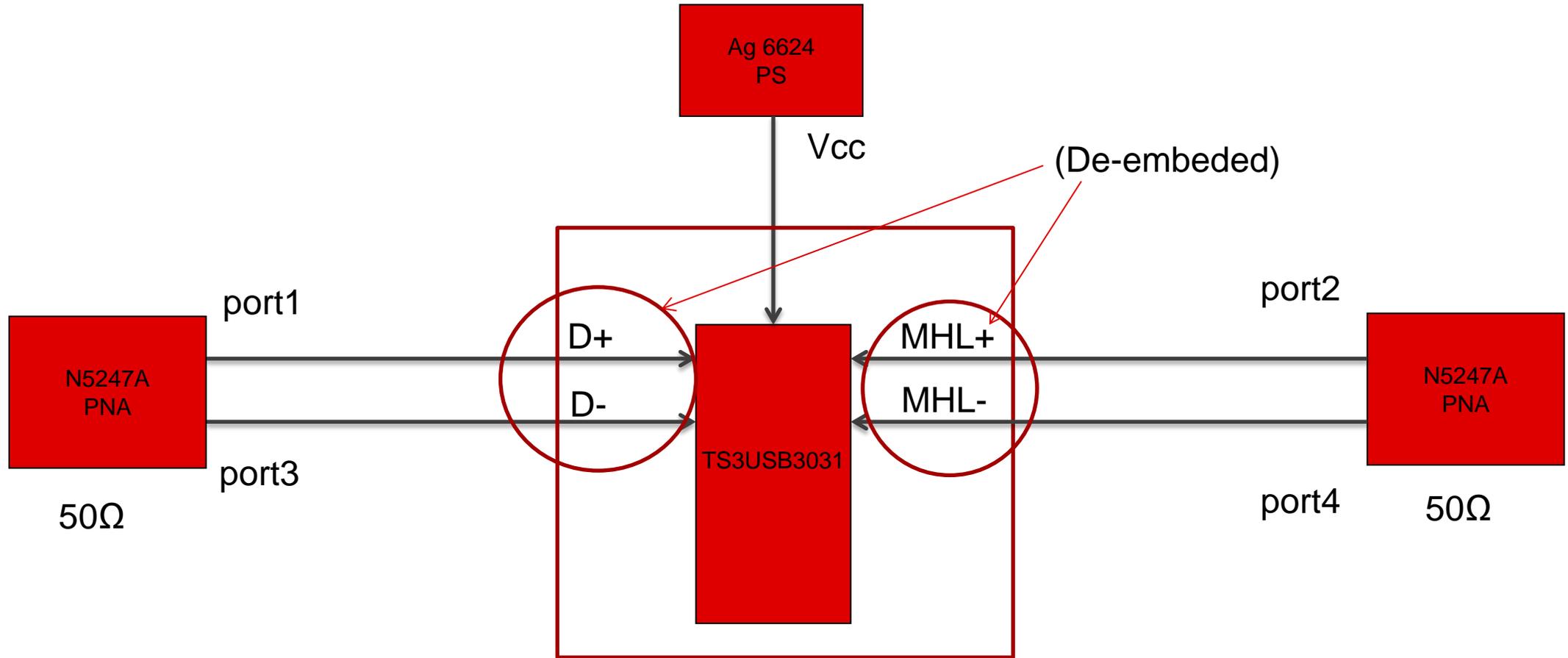
Setup Notes:

- Bench board traces have been de-embedded at the VNA (Ag N5247A)
- Using RF power of -10dBm
- VNA start freq: 10 MHz, stop freq: 12 GHz, IF BW:1kHz
- Port order: (1,3,2,4)

S4P File Description

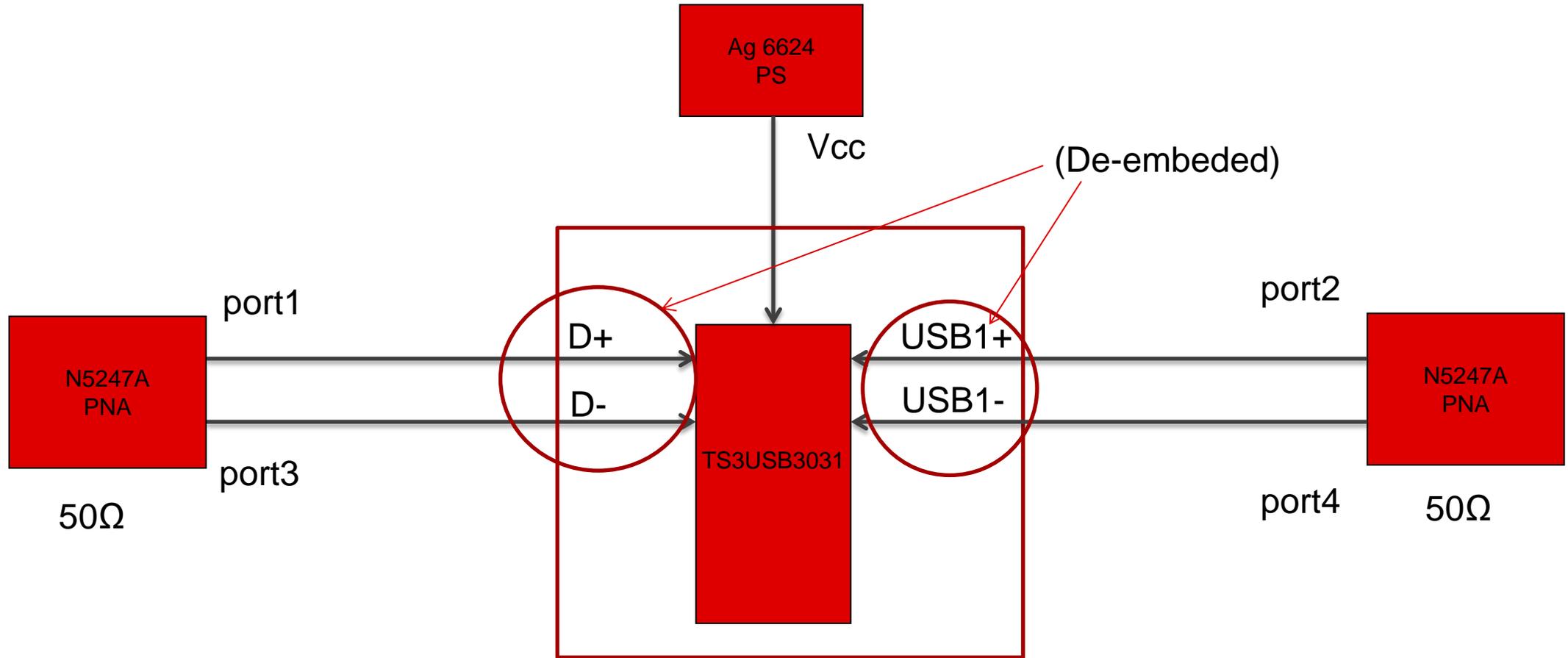
- MHL_3p3v_bias_3p3vcc.S4P
 - VCC = 3.3V; Temperature = 25C; Biased to 3.3V.
 - D to MHL path with switch closed
- usb1_3p3v_bias_3p3vcc.S4P
 - VCC = 3.3V; Temperature = 25C; Biased to 3.3V.
 - D to USB1 path with switch closed
- usb2_3p3v_bias_3p3vcc.S4P
 - VCC = 3.3V; Temperature = 25C; Biased to 3.3V
 - D to USB2 path with switch closed

TS3USB3031 test setup: D to MHL path



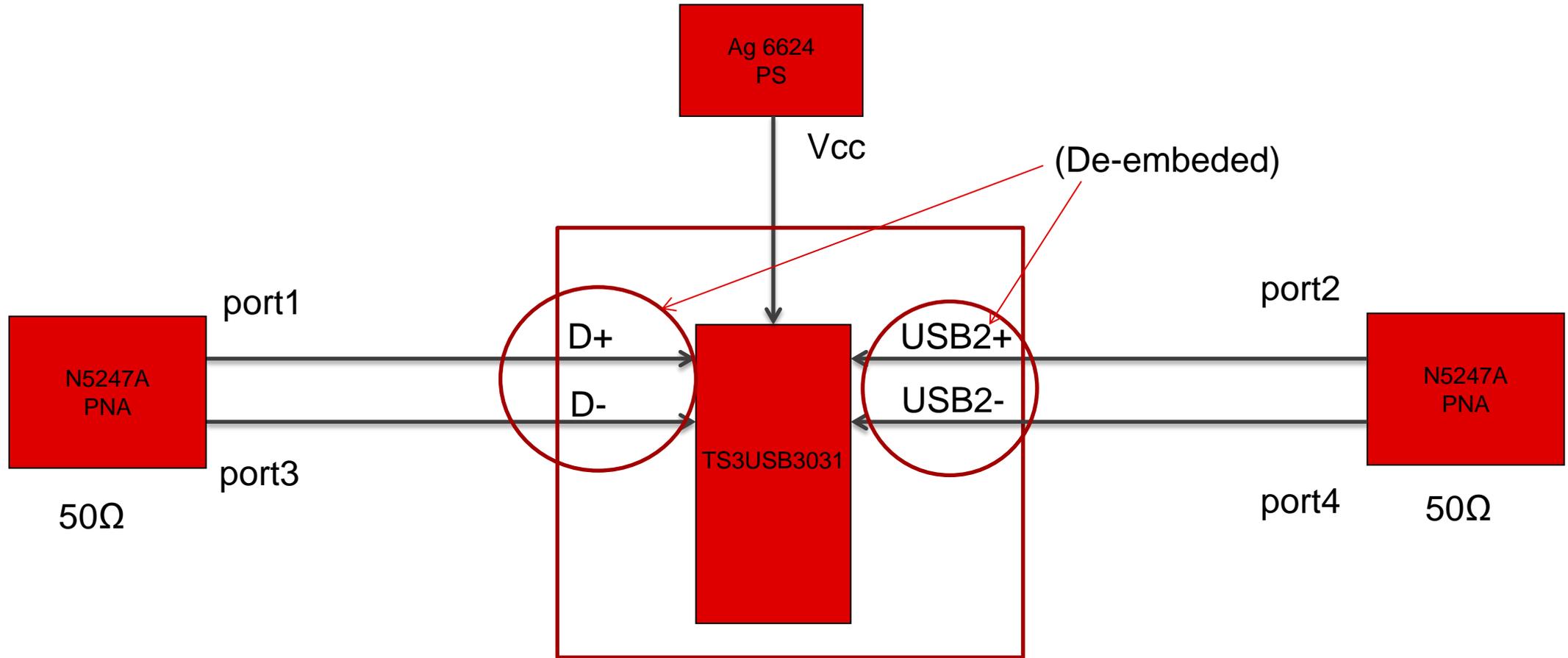
- Unused Ports terminated 50-ohms to GND.

TS3USB3031 test setup: D to USB1 path



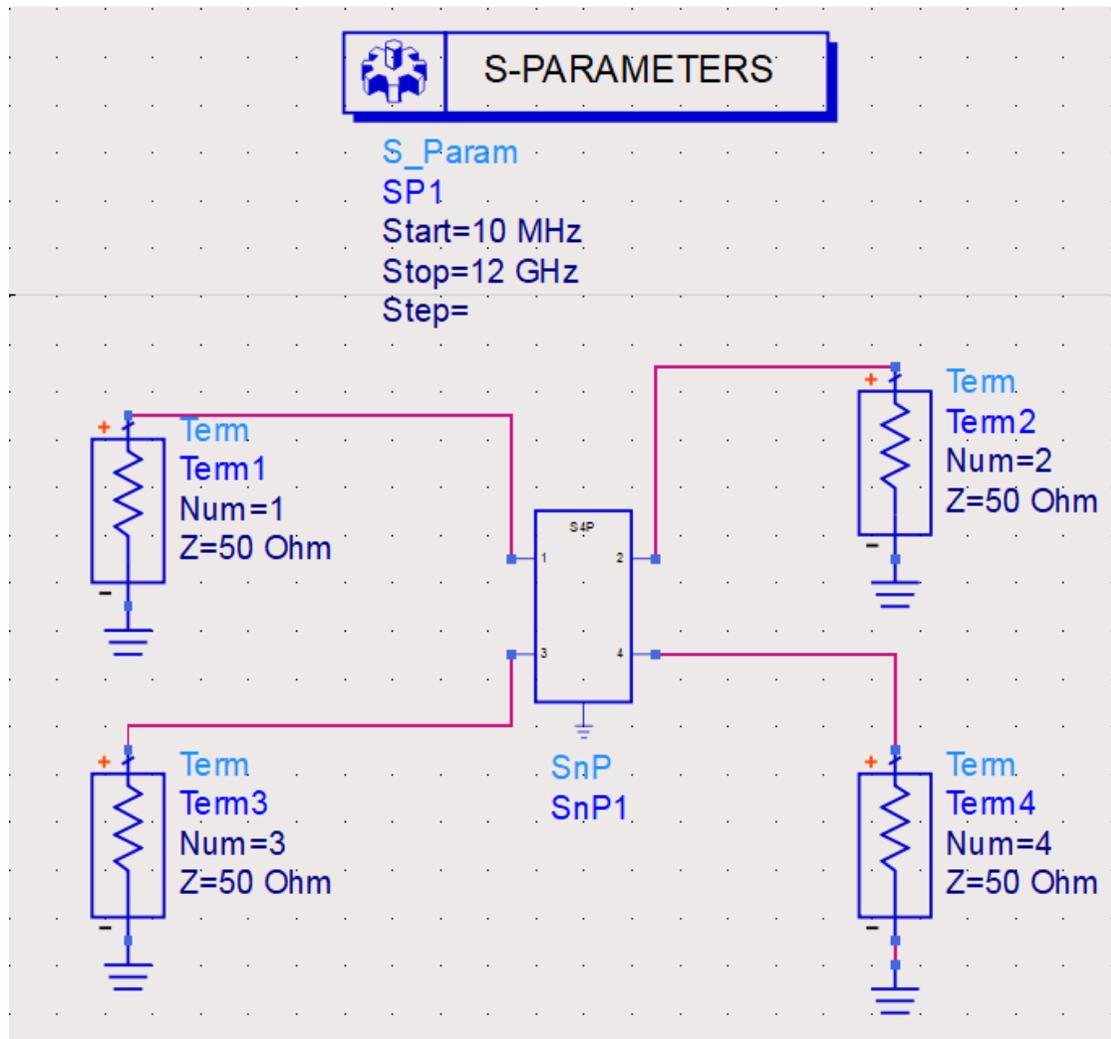
- Unused Ports terminated 50-ohms to GND.

TS3USB3031 test setup: D to USB2 path



- Unused Ports terminated 50-ohms to GND.

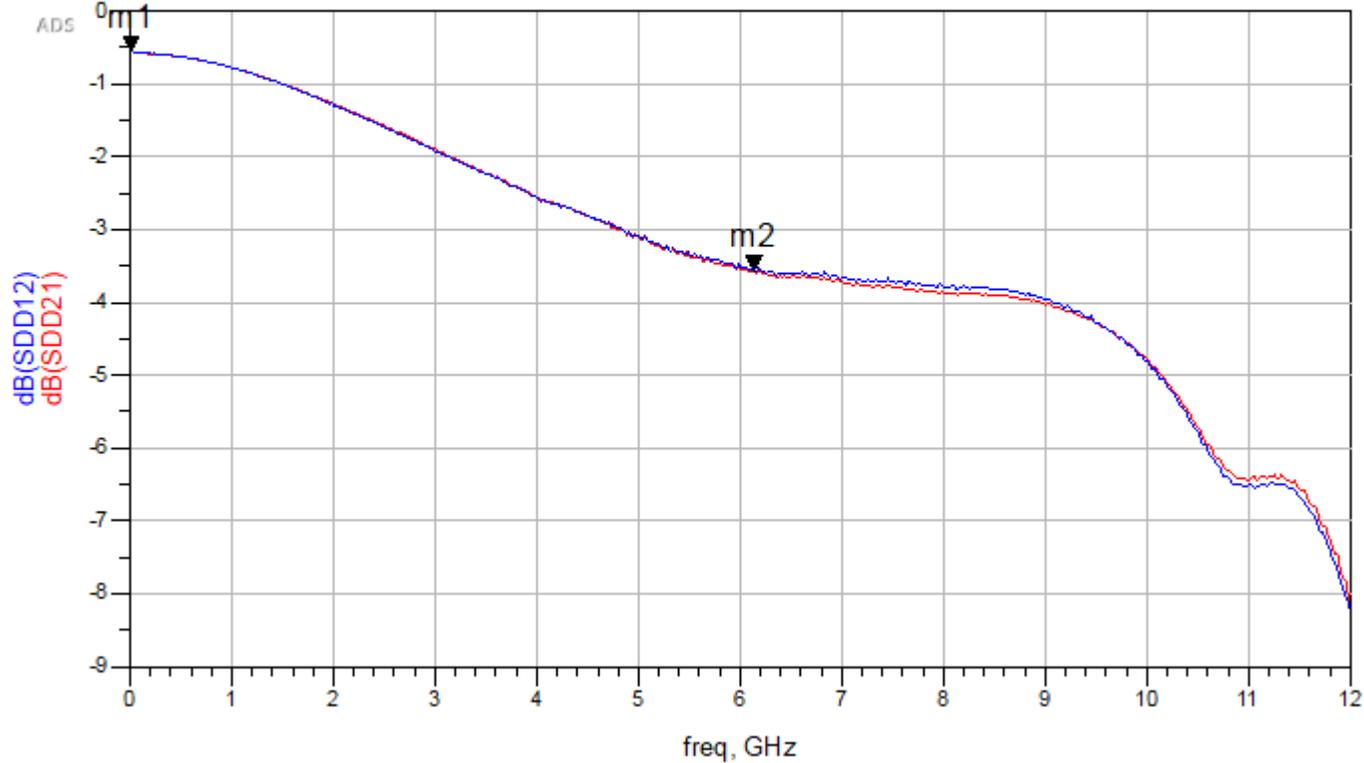
ADS Test Bench



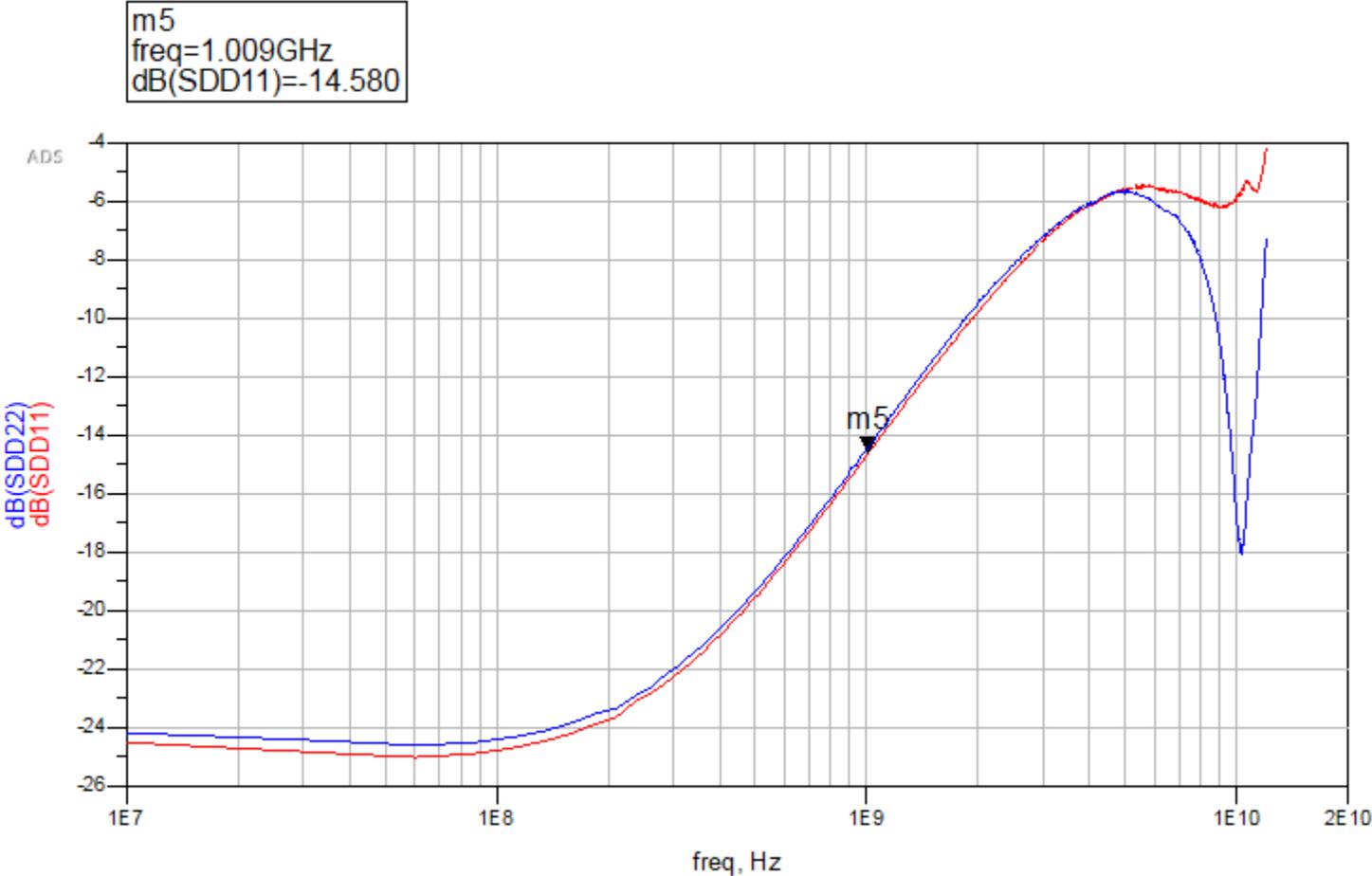
D to MHL: Insertion Loss

m1
freq=10.00MHz
dB(SDD21)=-0.547
Peak

m2
freq=6.130GHz
dB(SDD21)=-3.563



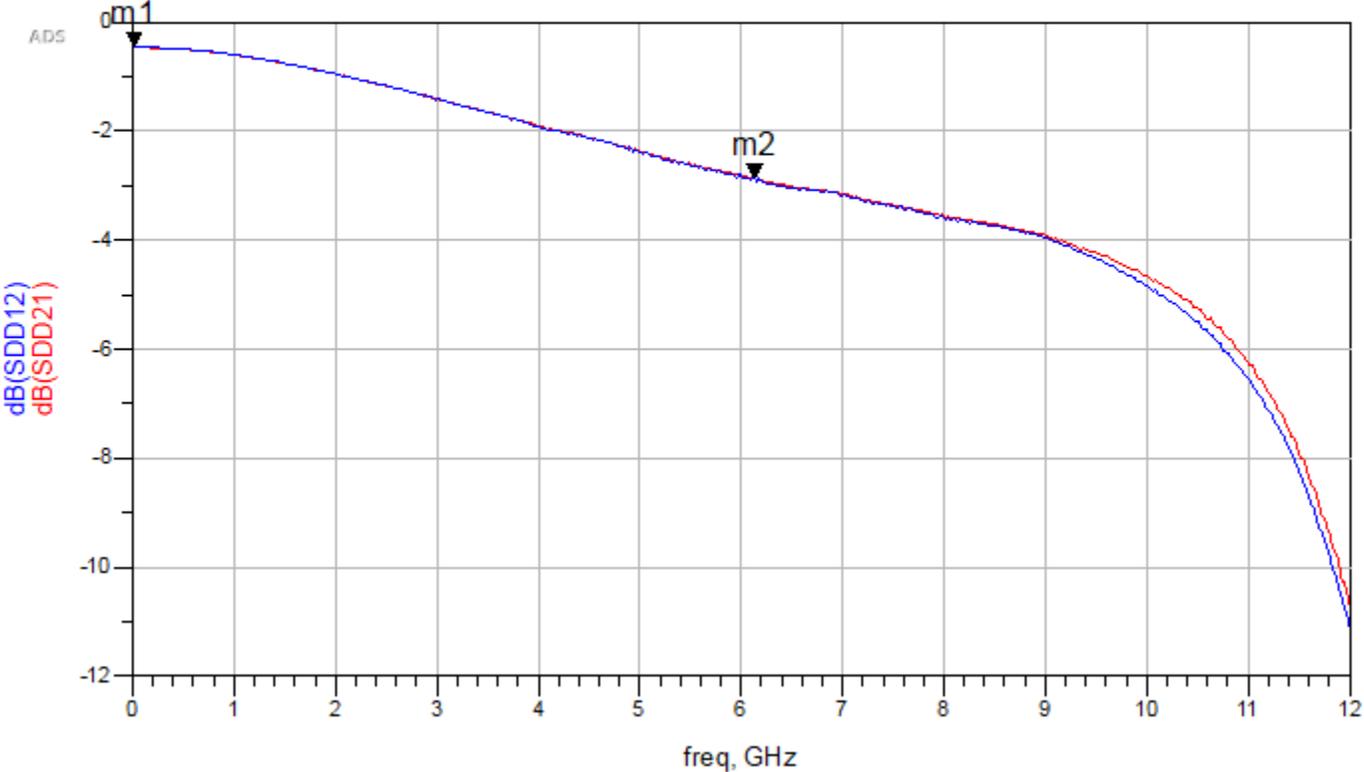
D to MHL: Return Loss



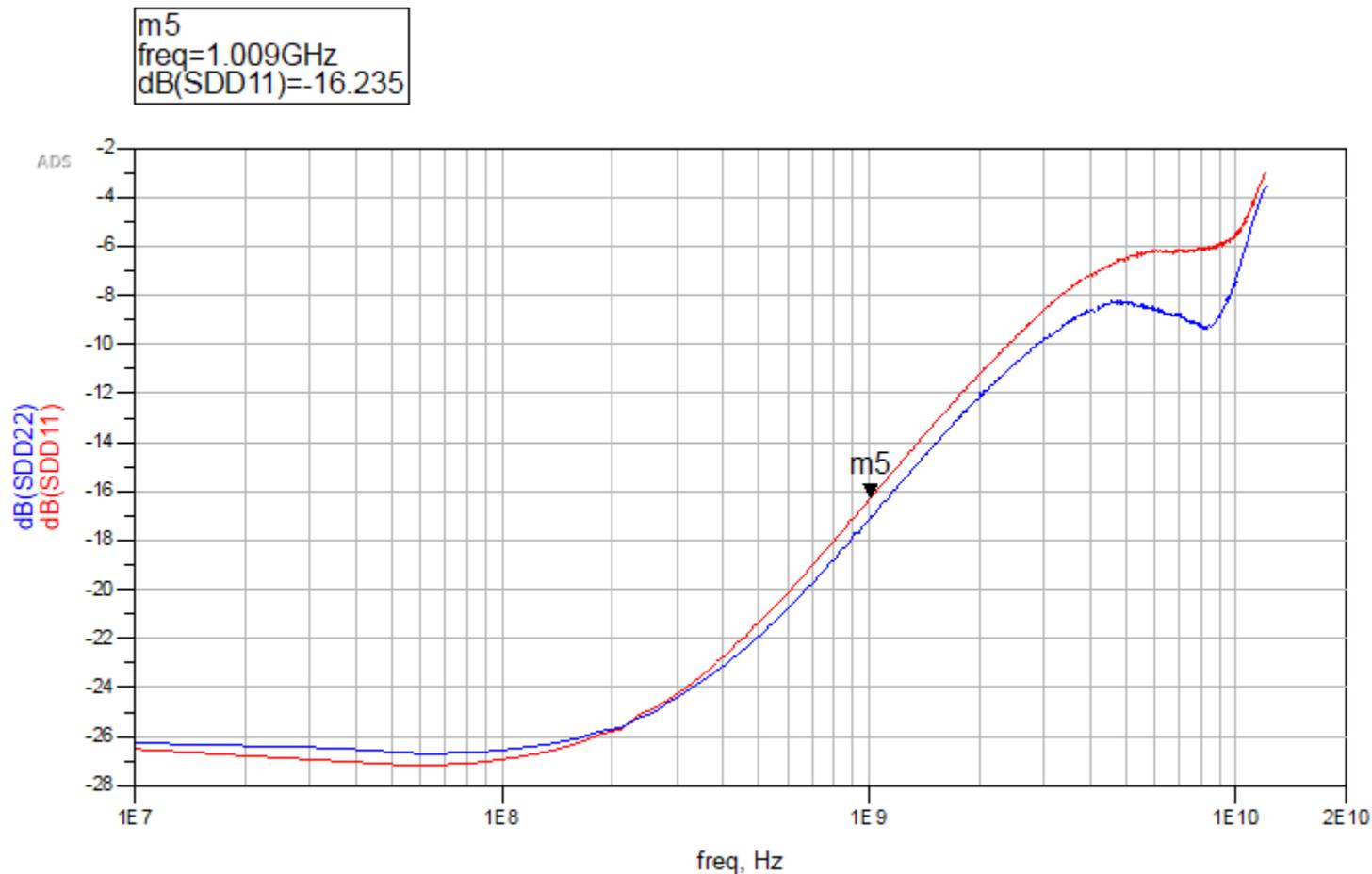
D to USB1: Insertion Loss

m1
freq=10.00MHz
dB(SDD21)=-0.448
Peak

m2
freq=6.130GHz
dB(SDD21)=-2.859



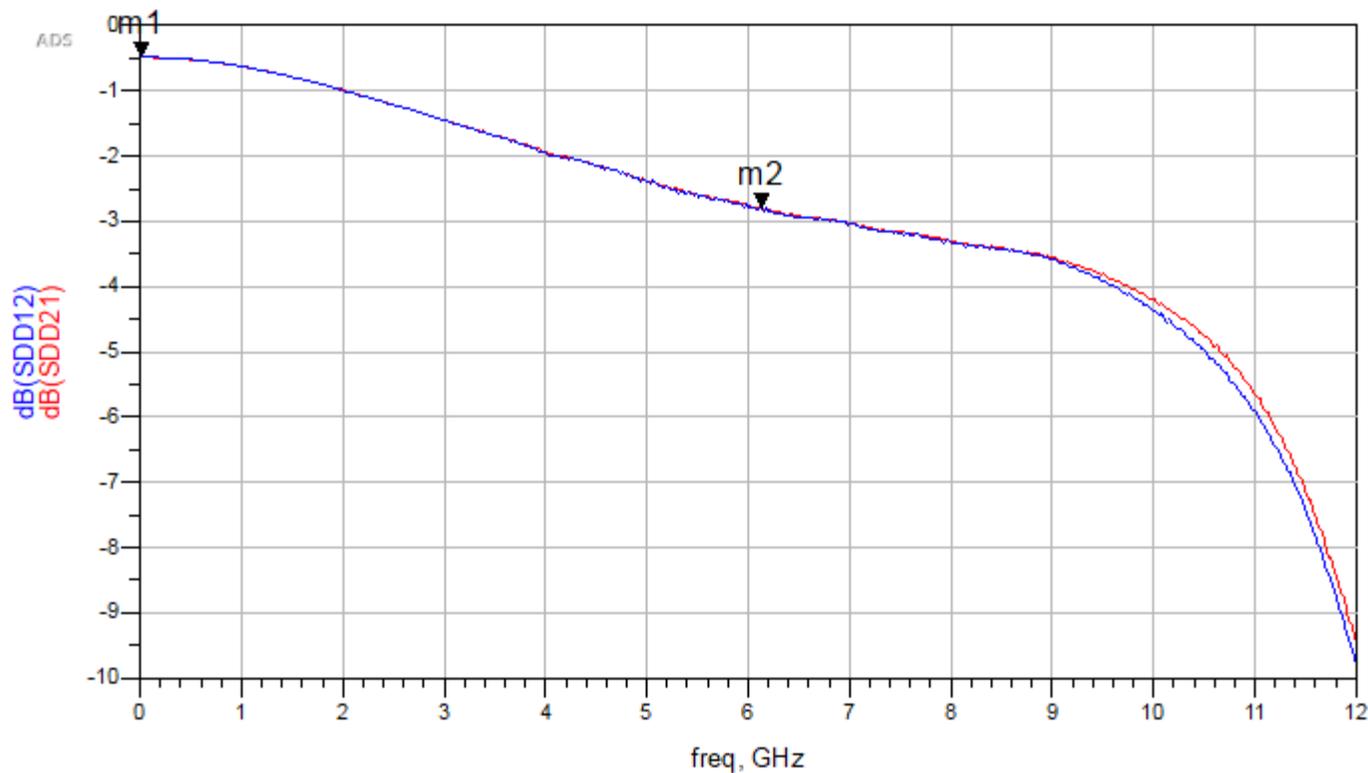
D to USB1: Return Loss



D to USB2: Insertion Loss

m1
freq=10.00MHz
dB(SDD21)=-0.473
Peak

m2
freq=6.130GHz
dB(SDD21)=-2.788



D to USB2: Return Loss

