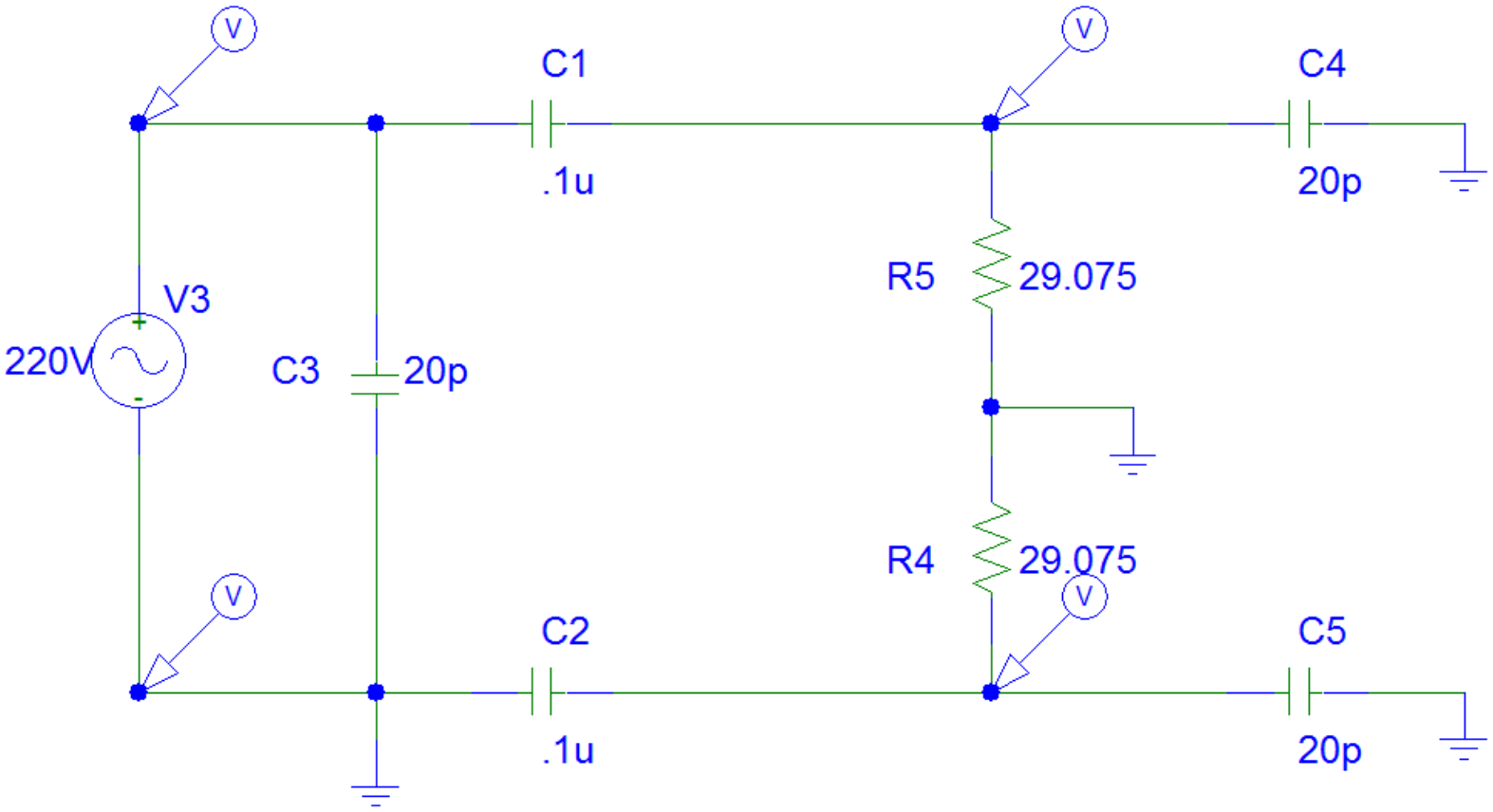
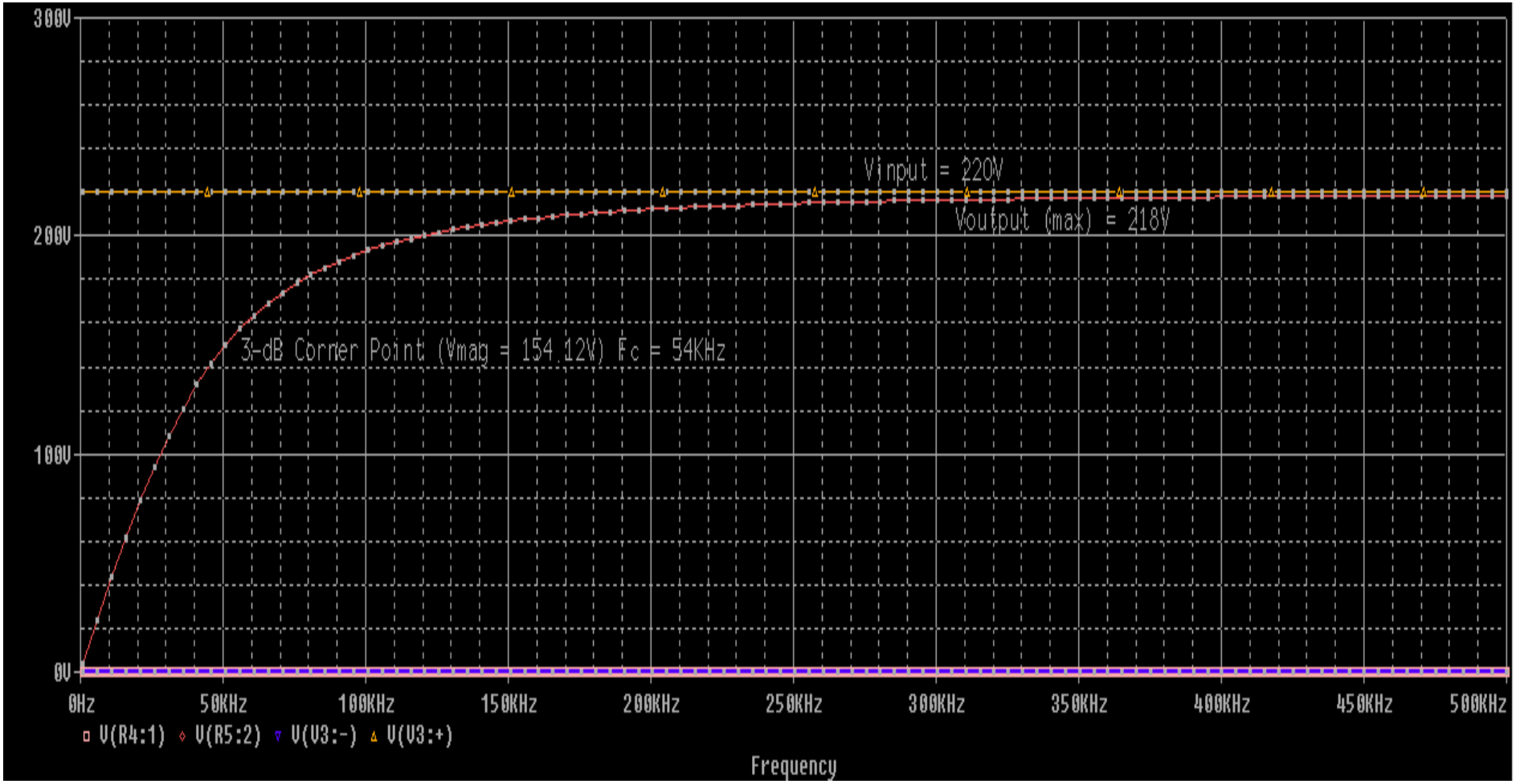
Test-1 : To test the frequency response of HPF circuit after introducing probe capacitance (20pF) with single ended input.



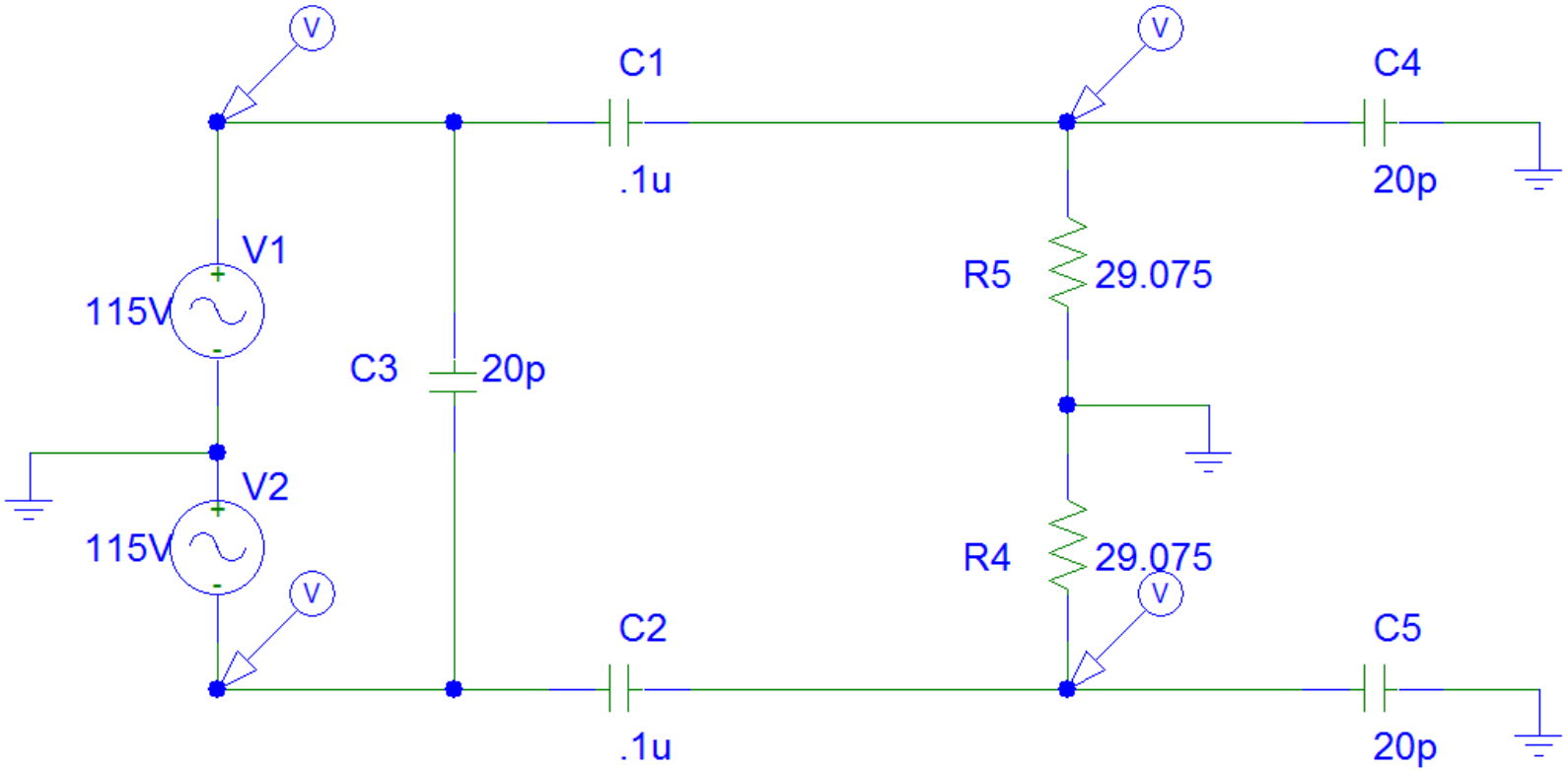
Results after AC analysis of Test setup - 1



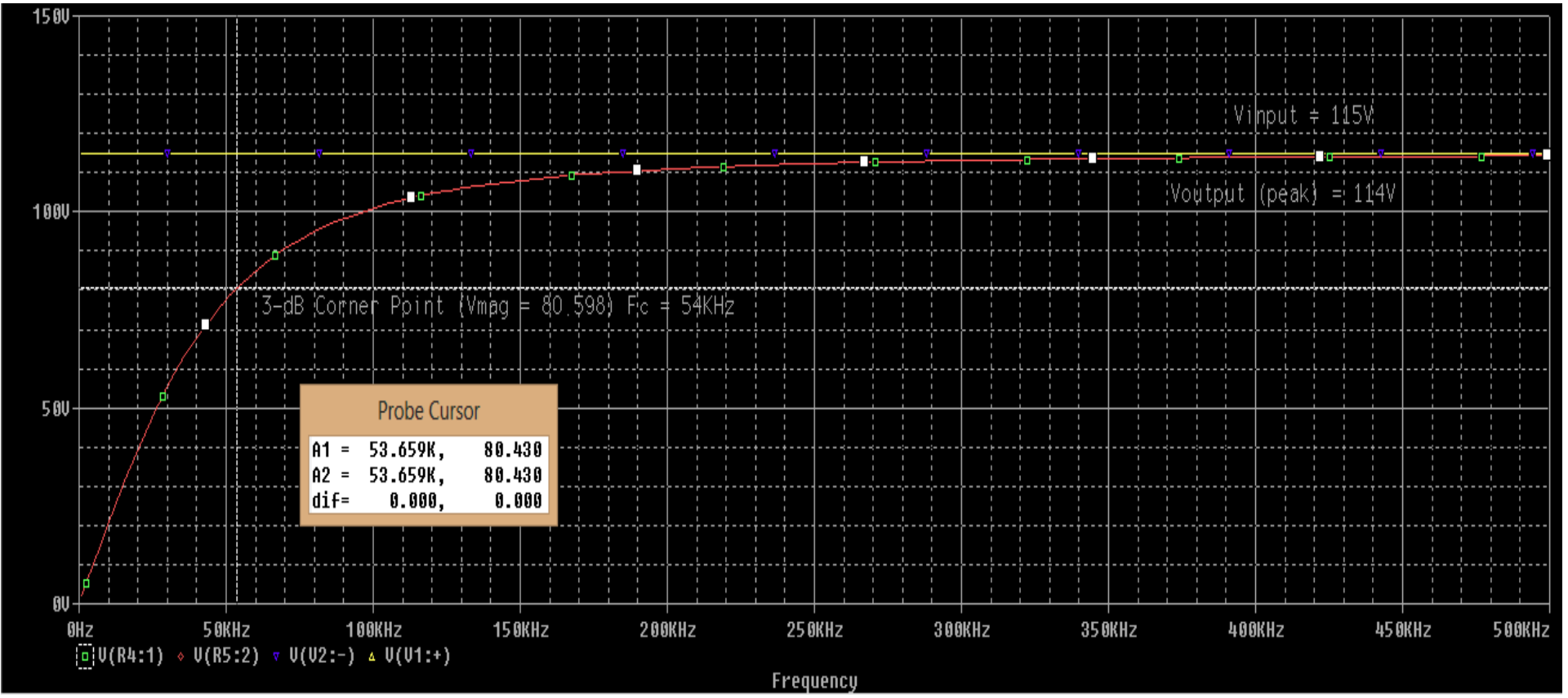
Observations from Spectrogram of test setup - 1

- After giving differential input to HPF including probe capacitance (20pF) the amplitude at half circuit input voltage probe is 220V V(V2: -) & V(V1: +) and peak amplitude at half circuit output voltage probe is 218V V(R5: 2) and V(R4: 1).
- 3-dB corner point lies at 154.12 V (marked in plot) at 54 KHz.

Test-2 : To test the frequency response of HPF circuit after introducing probe capacitance (20pF) with differential input.



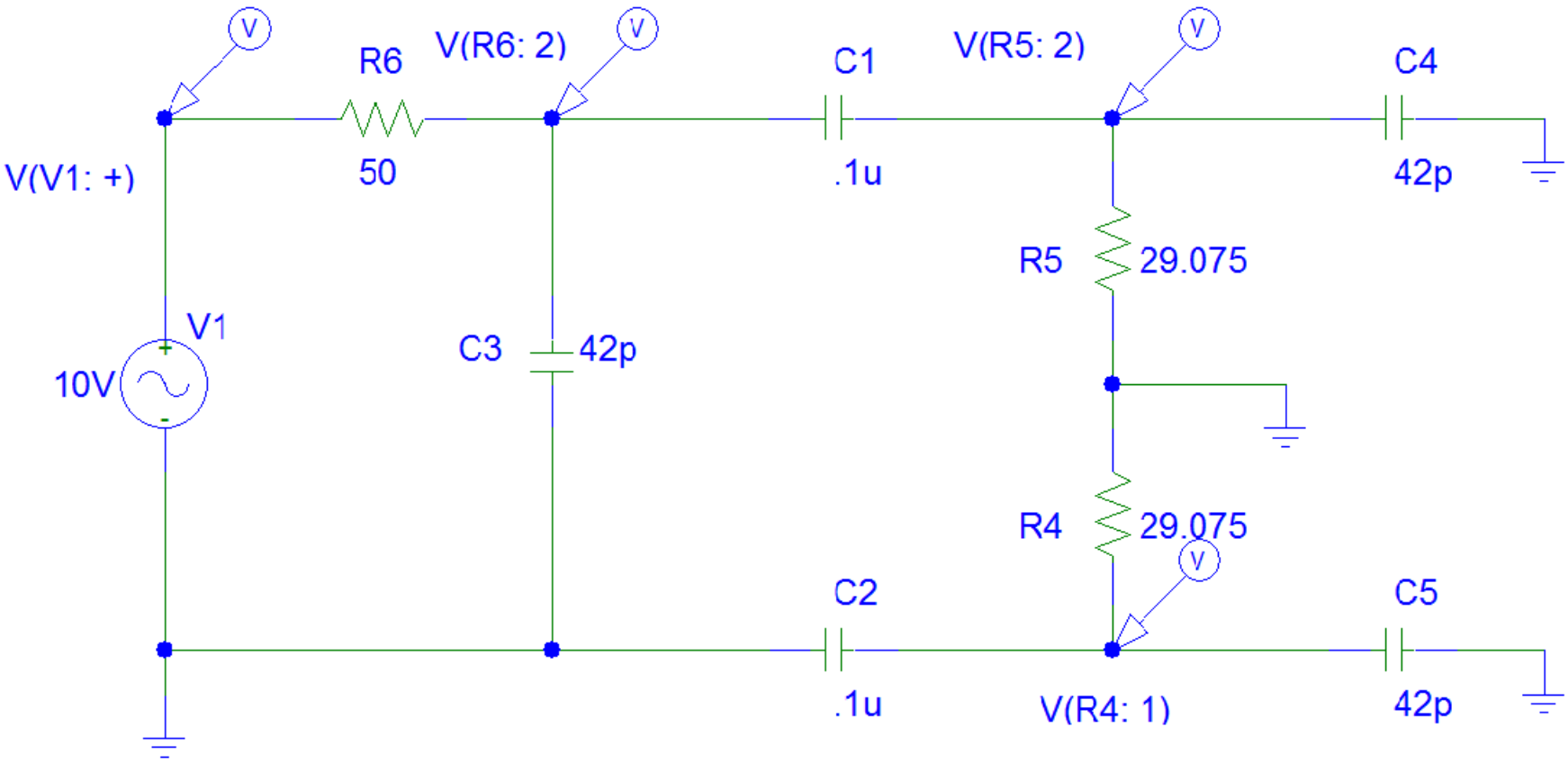
Results after AC analysis of Test setup - 2



Observations from Spectrogram

- After giving differential input to HPF including probe capacitance (20pF) the amplitude at half circuit input voltage probe is 115V V(V2: -) & V(V1: +) and peak amplitude at half circuit output voltage probe is 114V V(R5: 2) and V(R4: 1).
- 3-dB corner point lies at 80.598 V (marked in plot) at 53.659 KHz.

Test-3 : To test the frequency response of HPF circuit after introducing probe capacitance (12pF) + CRO capacitance (30pF)[1] along with 50 Ohm input impedance .



[1] http://circuitslab.case.edu/manuals/Probe_Fundamentals-_Tektronix.pdf

Results after AC analysis of Test setup - 3