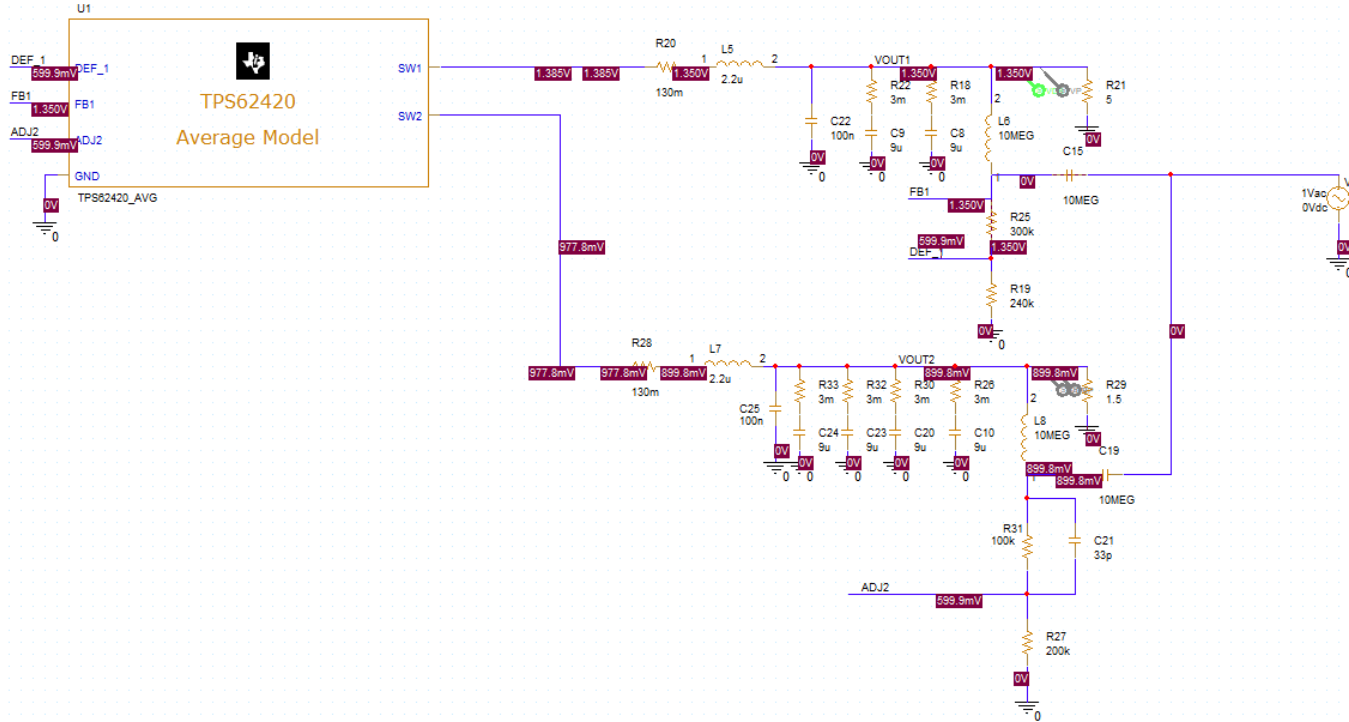


# Measurement setup:

## TPS62420 LOOP RESPONSE SIMULATION

Date: Tuesday, August 01, 2023 Sheet 1



# Passives

- Inductor1&2: 2.2uH; TFM201610ALMA2R2MTAA; DCR=130mOhm
- Vout1: 1.35V; R1= 300kOhm; R2 = 240kOhm; Cff = NC
- Output capacitor used: 2x10uF; ESR=3mohm (assumed)
- Rout1 = 5Ohm; Iout 0.27A
  
- Vout2: 0.9V; R1 = 100kOhm; R2 = 200kOhm, Cff = 33pF
- Output capacitor used: 4x10uF; ESR=3mohm (assumed)
- Rout2 = 1.5Ohm; Iout 0.6A

# Bode plots

$V_{in} = 5V$

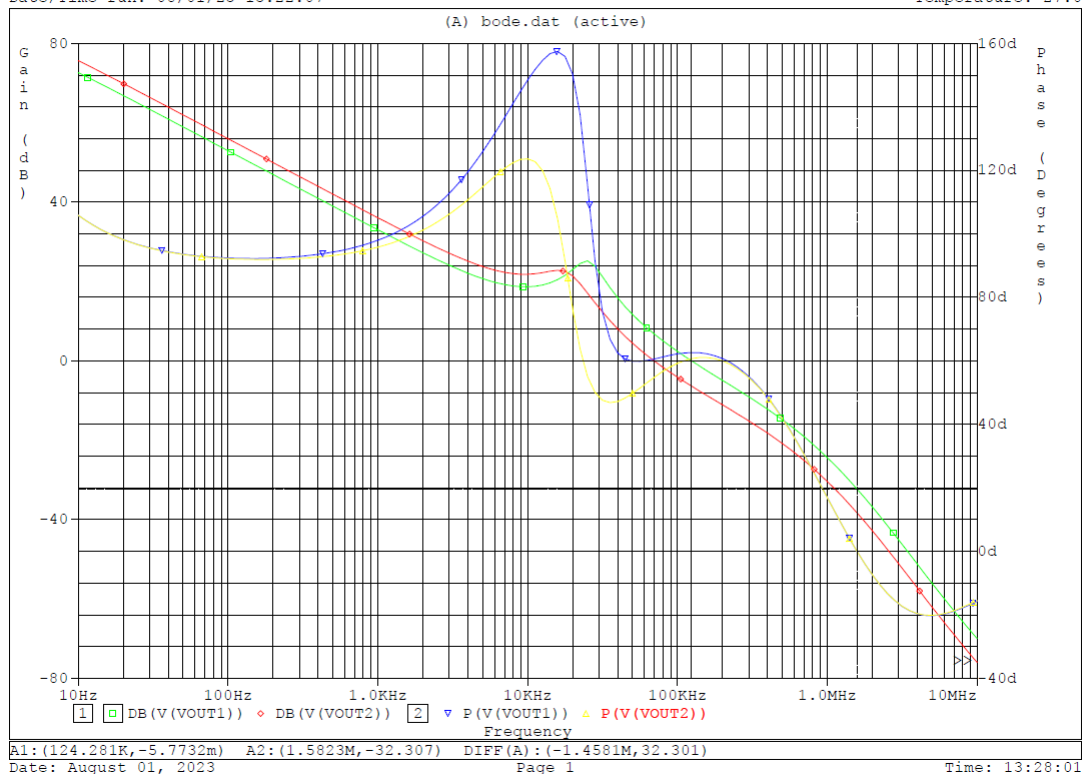
$V_{out1} = 1.35V$

Parameter	Value
Phase margin (deg)	62.6
Crossover freq (kHz)	124.3
Gain margin (dB)	32.3

$V_{out2} = 0.9V$

Parameter	Value
Phase margin (deg)	54.72
Crossover freq (kHz)	69.9
Gain margin (dB)	38.35

\*\* Profile: "SCHEMATIC1-bode" [ C:\Users\ao489489\Documents\ExtSync\_Trek\slim129 (1)\TPS62420\_PSPICE\_AV...  
Date/Time run: 08/01/23 13:22:07 Temperature: 27.0



# Summary

- Good stability of system

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