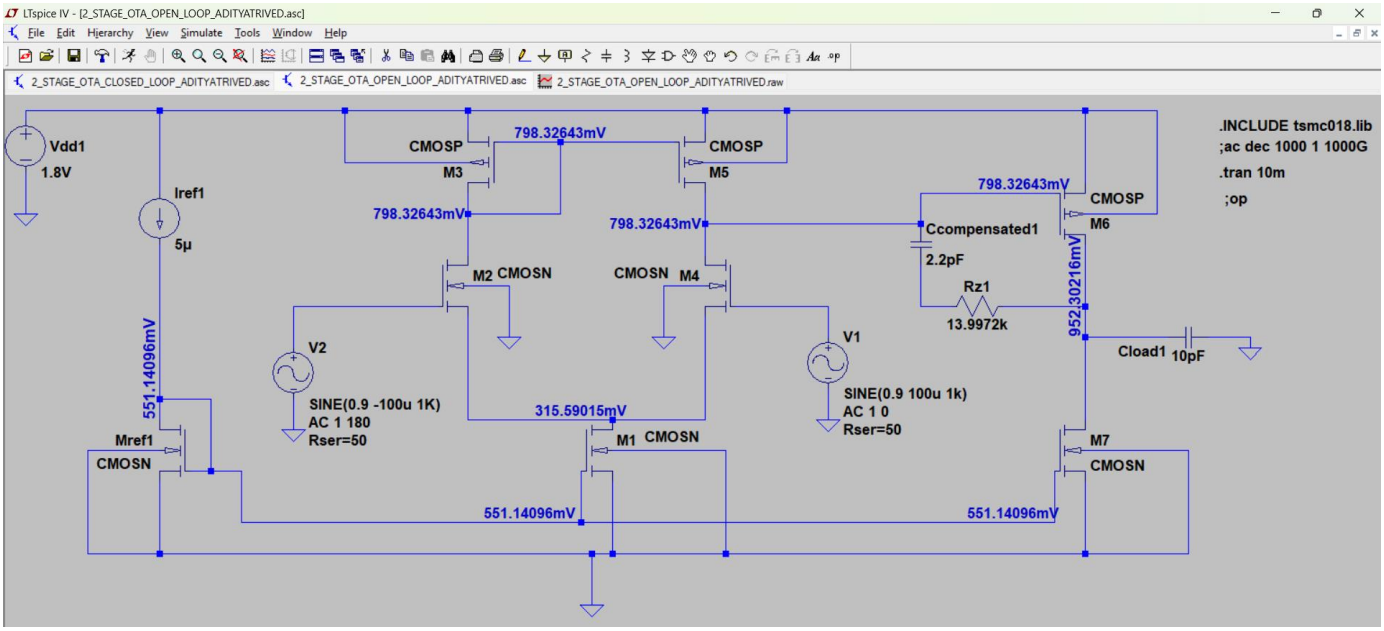
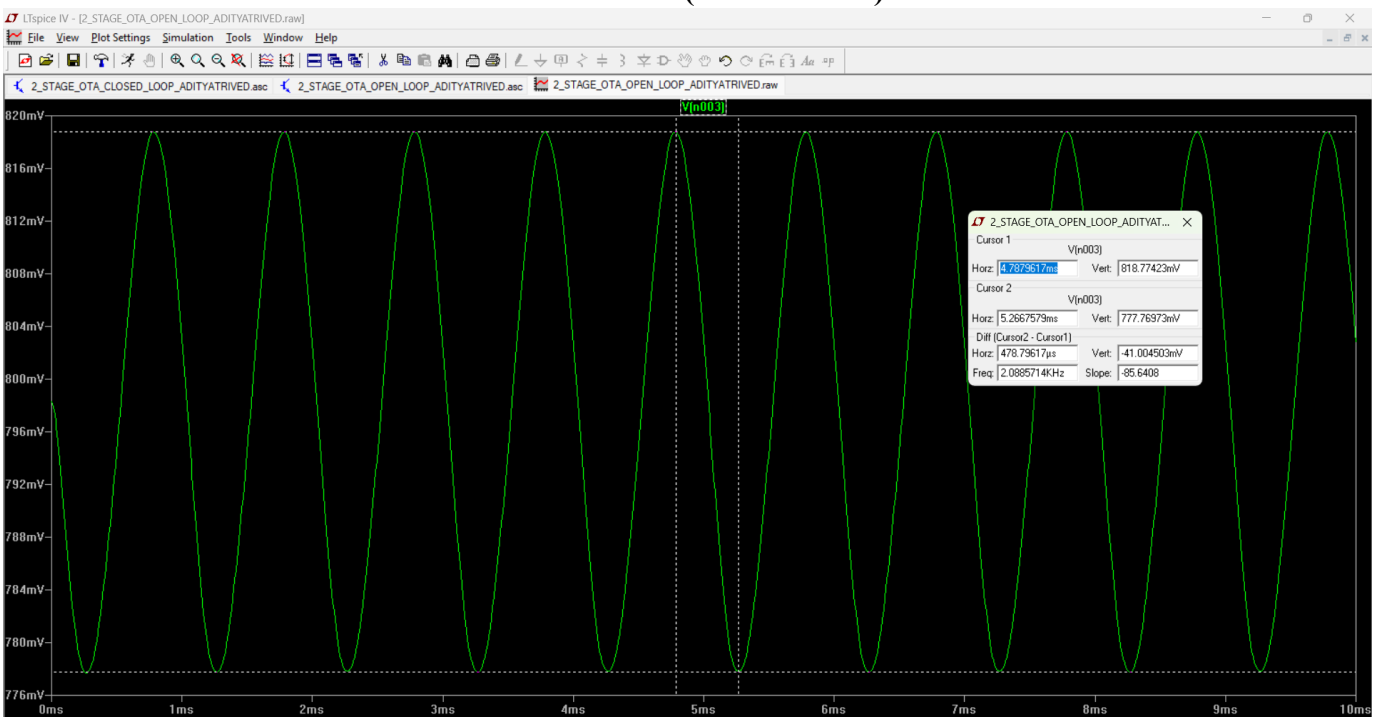
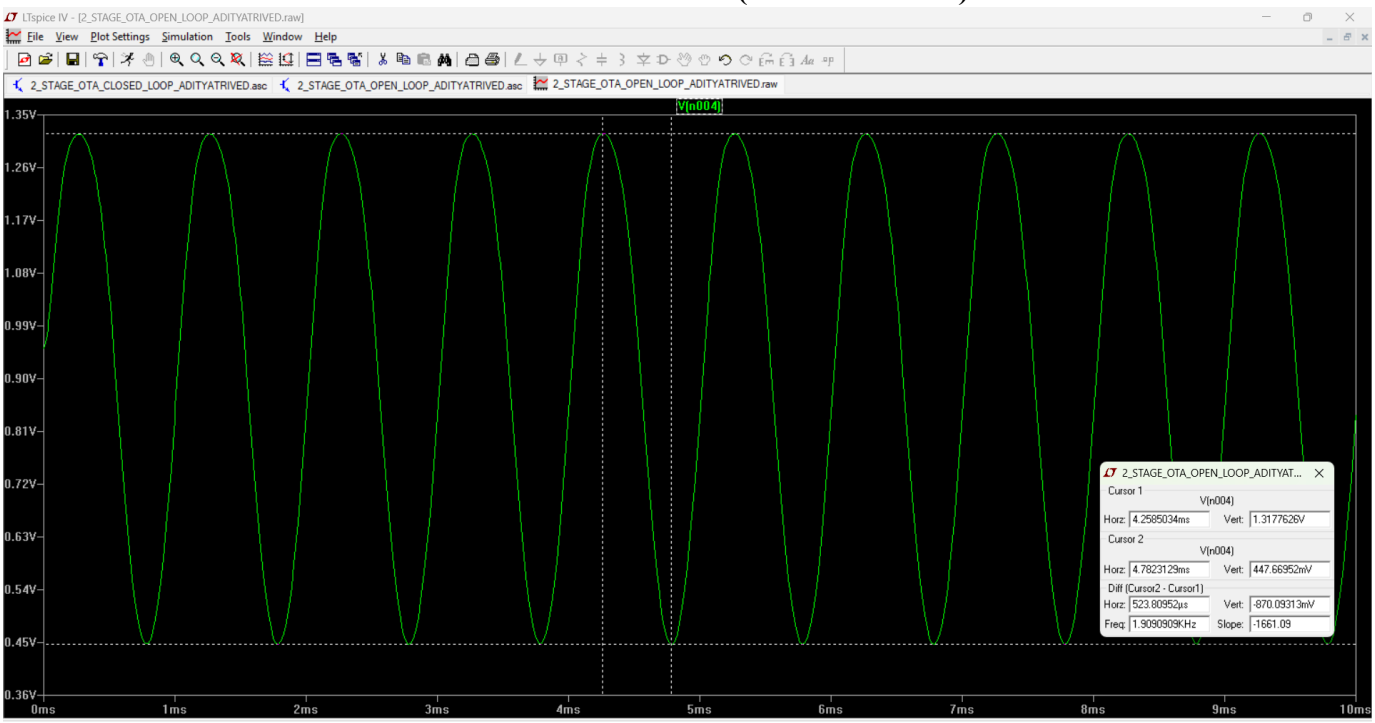
OPEN LOOP CIRCUIT



RESPONSE 1ST STAGE GAIN VALUE = 102.5 = (41mV/400uV)

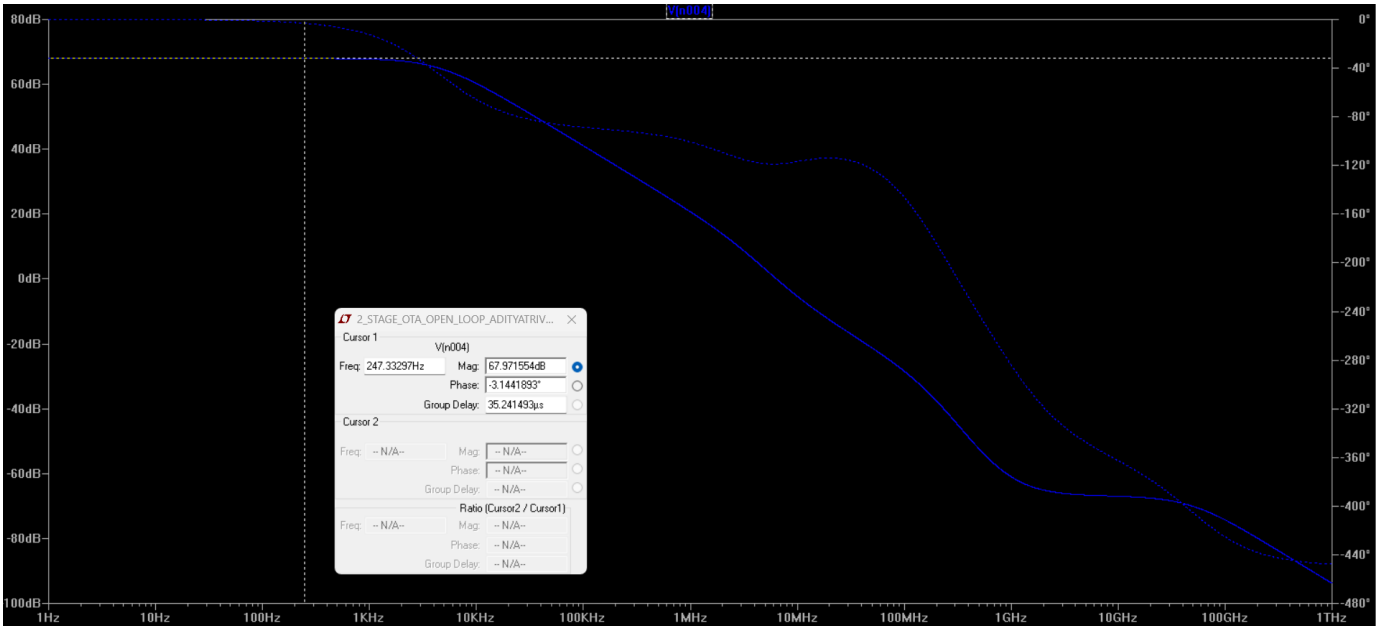


RESPONSE 2ND STAGE GAIN VALUE = 2175.225 = (870mV/ 400uV)



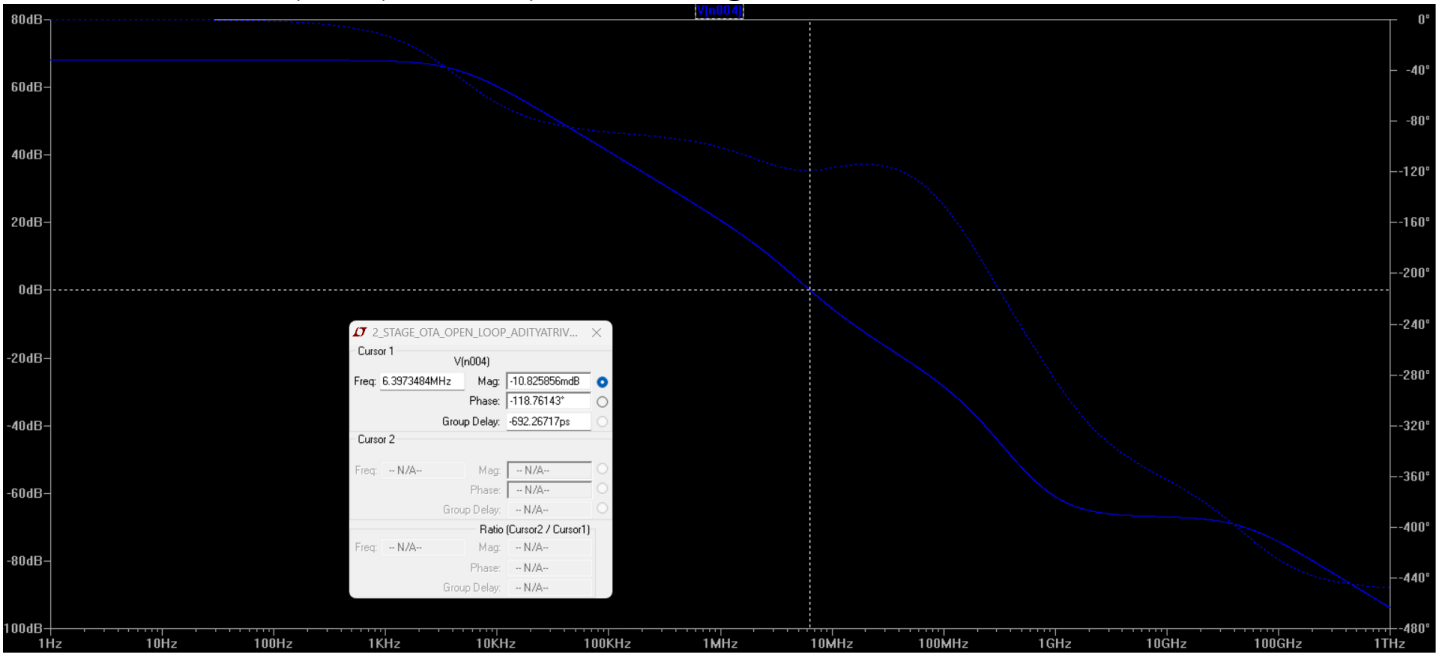
BODE MAGNITUDE PLOT OF OPEN LOOP CIRCUIT

GAIN VALUE = 67dB (from bode plot) which is approximately equal to 20log(2175.225).

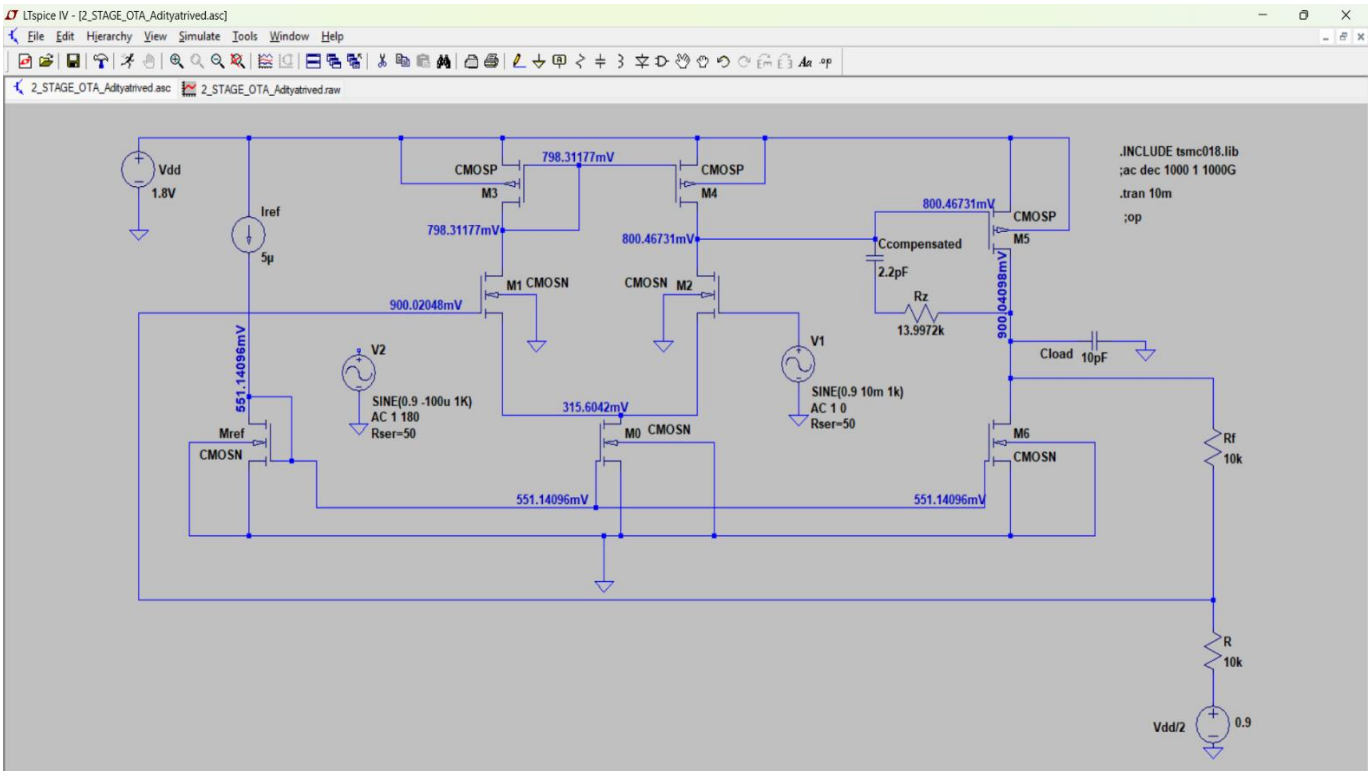


BODE PHASE PLOT OF OPEN LOOP CIRCUIT

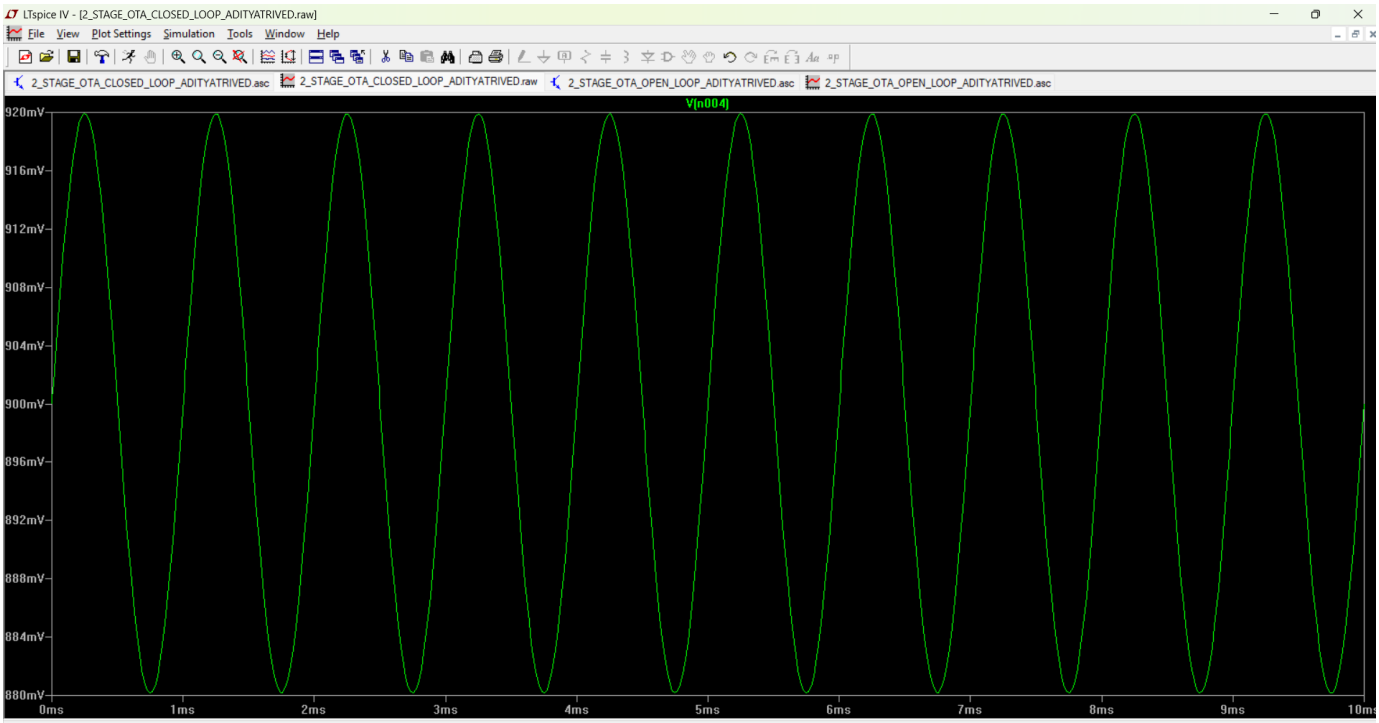
PHASE MARGIN = (180+ (-118.76143) = 61.23857degrees



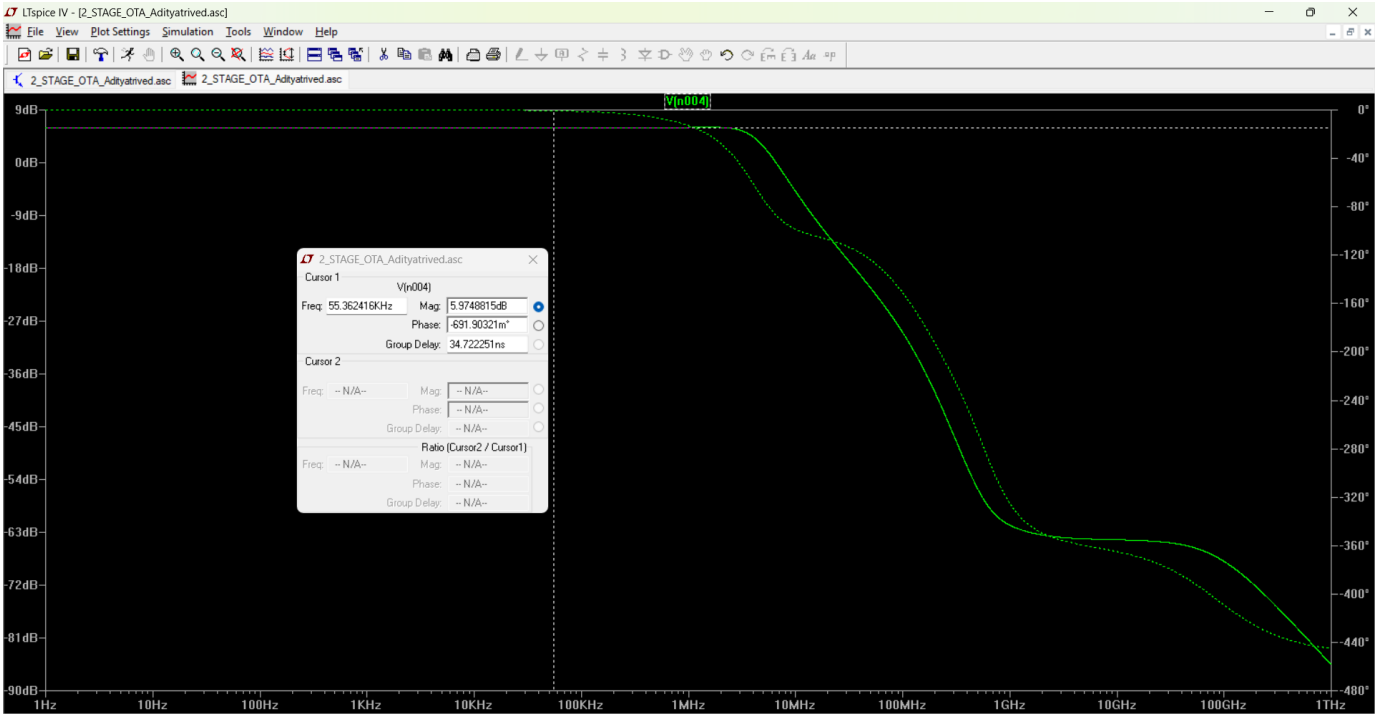
CLOSED LOOP CIRCUIT WITH GAIN = 2



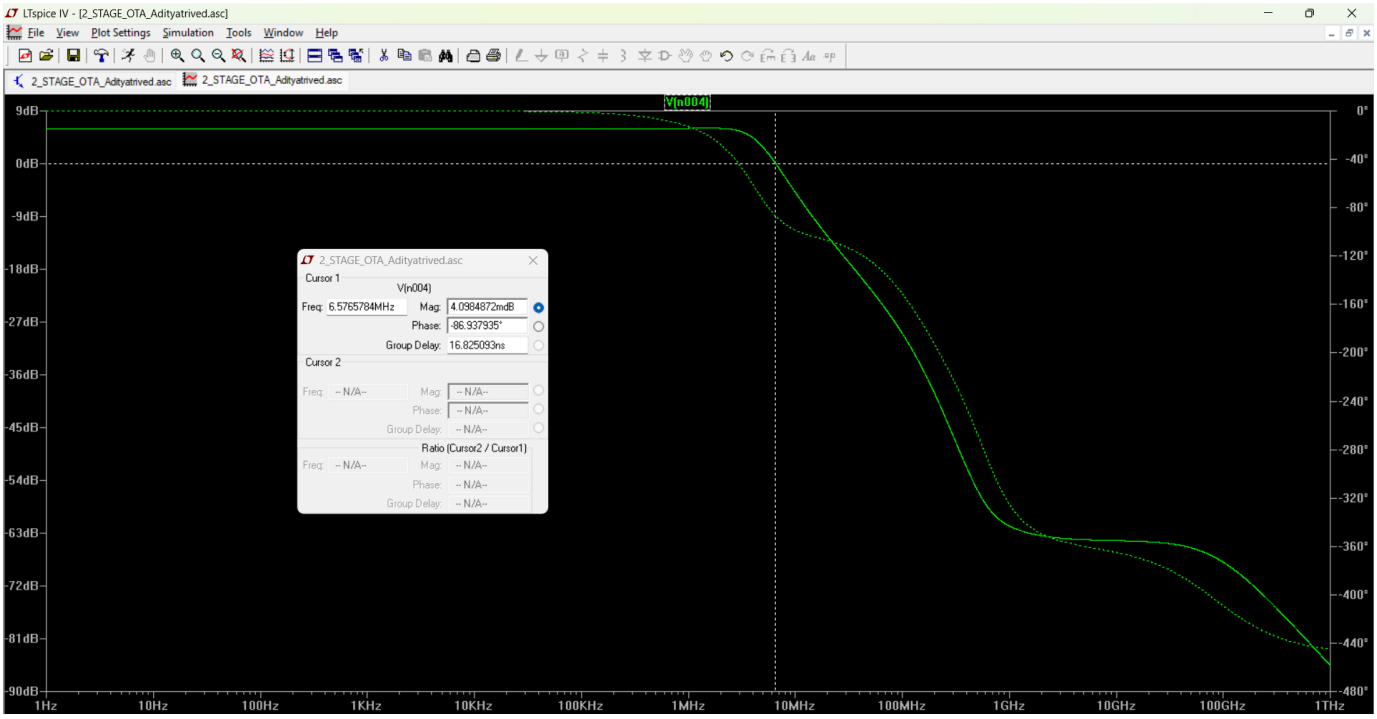
RESPONSE :- GAIN VALUE = (920-880)mV/(20mV) = 2



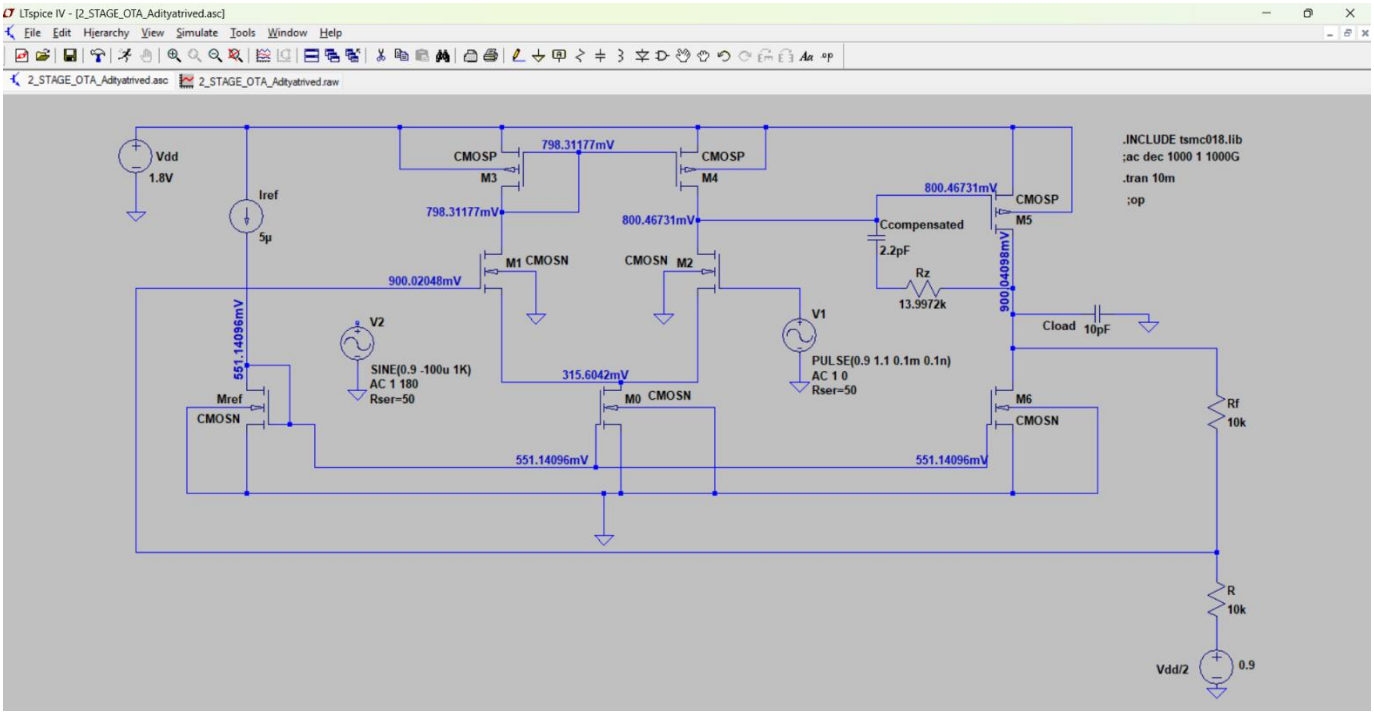
BODE MAGNITUDE PLOT OF CLOSED LOOP CIRCUIT GAIN VALUE = 5.97dB which is approximately equal to 20log(2) = 6dB



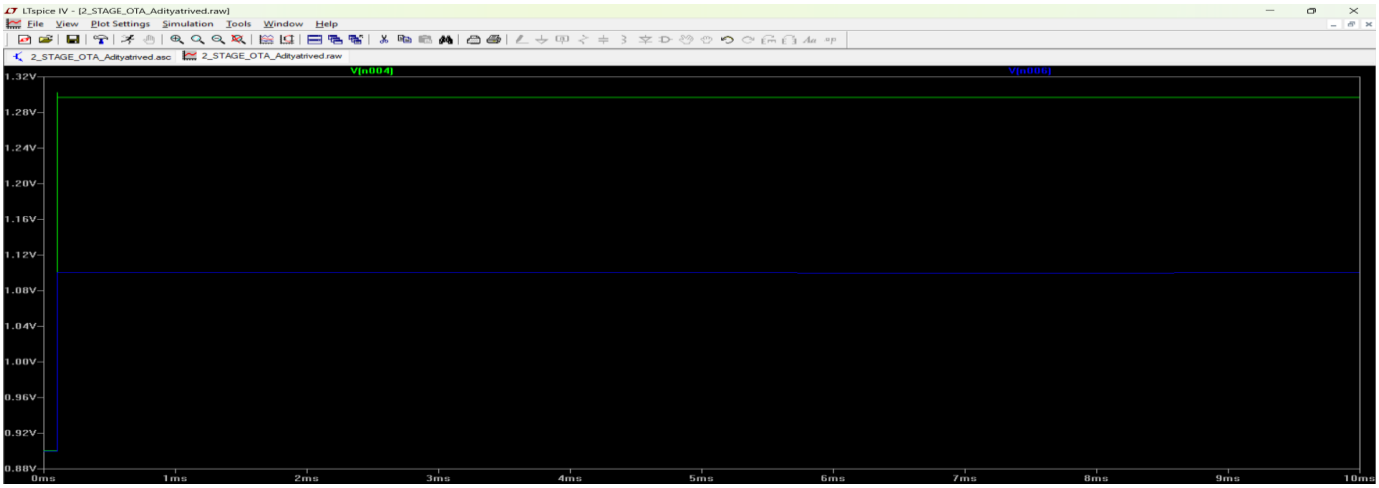
PHASE PLOT OF CLOSED LOOP CIRCUIT PHASE MARGIN = 180 + (-86.937935) = 93.062 degrees.



CLOSED LOOP CIRCUIT – STEP INPUT TRANSIENT RESPONSE



BLUE REPRESENTS – STEP INPUT ; GRREN REPRESENTS - OUTPUT



RESPONSE AND IT'S ZOOMED VERSION