


SPICE Error Log: C:\Users\ACER\Downloads\AICD_final_ckt.log

Gmin stepping succeeded in finding the operating point.

Semiconductor Device Operating Points:

--- BSIM3 MOSFETS ---

| Name: | m3 | m1 | m6 | m2 | m9 |
|----------|-----------|-----------|-----------|-----------|-----------|
| Model: | cmosp | cmosp | cmosp | cmosn | cmosn |
| Id: | 9.34e-05 | 9.34e-05 | 2.54e-03 | 9.34e-05 | 9.34e-05 |
| Vgs: | 0.00e+00 | -2.09e-14 | -2.15e-01 | 6.35e-01 | 6.35e-01 |
| Vds: | 8.81e-01 | 8.81e-01 | 6.66e-01 | 6.54e-01 | 6.54e-01 |
| Vbs: | 8.81e-01 | 8.81e-01 | 6.66e-01 | -2.65e-01 | -2.65e-01 |
| Vth: | -4.18e-01 | -4.18e-01 | -4.19e-01 | 4.85e-01 | 4.85e-01 |
| Vdsat: | -3.52e-01 | -3.52e-01 | -3.52e-01 | 1.28e-01 | 1.28e-01 |
| Gm: | 3.66e-04 | 3.66e-04 | 9.95e-03 | 1.16e-03 | 1.16e-03 |
| Gds: | 4.39e-06 | 4.39e-06 | 1.61e-04 | 8.02e-06 | 8.02e-06 |
| Gmb: | 1.19e-04 | 1.19e-04 | 3.26e-03 | 2.94e-04 | 2.94e-04 |
| Cbd: | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cbs: | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cgsov: | 1.02e-14 | 1.02e-14 | 2.79e-13 | 2.63e-14 | 2.63e-14 |
| Cgdov: | 1.02e-14 | 1.02e-14 | 2.79e-13 | 2.63e-14 | 2.63e-14 |
| Cgbov: | 9.41e-19 | 9.41e-19 | 9.41e-19 | 3.86e-18 | 3.86e-18 |
| dQgdVgb: | 1.25e-13 | 1.25e-13 | 3.45e-12 | 2.65e-13 | 2.65e-13 |
| dQgdVdb: | -9.99e-15 | -9.99e-15 | -2.78e-13 | -2.57e-14 | -2.57e-14 |
| dQgdVsb: | -1.13e-13 | -1.13e-13 | -3.12e-12 | -2.26e-13 | -2.26e-13 |
| dQddVgb: | -5.25e-14 | -5.25e-14 | -1.45e-12 | -1.12e-13 | -1.12e-13 |
| dQddVdb: | 1.01e-14 | 1.01e-14 | 2.80e-13 | 2.60e-14 | 2.60e-14 |
| dQddVsb: | 5.59e-14 | 5.59e-14 | 1.54e-12 | 1.10e-13 | 1.10e-13 |
| dQbdVgb: | -2.03e-14 | -2.03e-14 | -5.55e-13 | -4.09e-14 | -4.09e-14 |
| dQbdVdb: | -2.37e-17 | -2.37e-17 | -3.35e-15 | 3.13e-17 | 3.13e-17 |
| dQbdVsb: | -8.86e-15 | -8.86e-15 | -2.46e-13 | -1.99e-14 | -1.99e-14 |

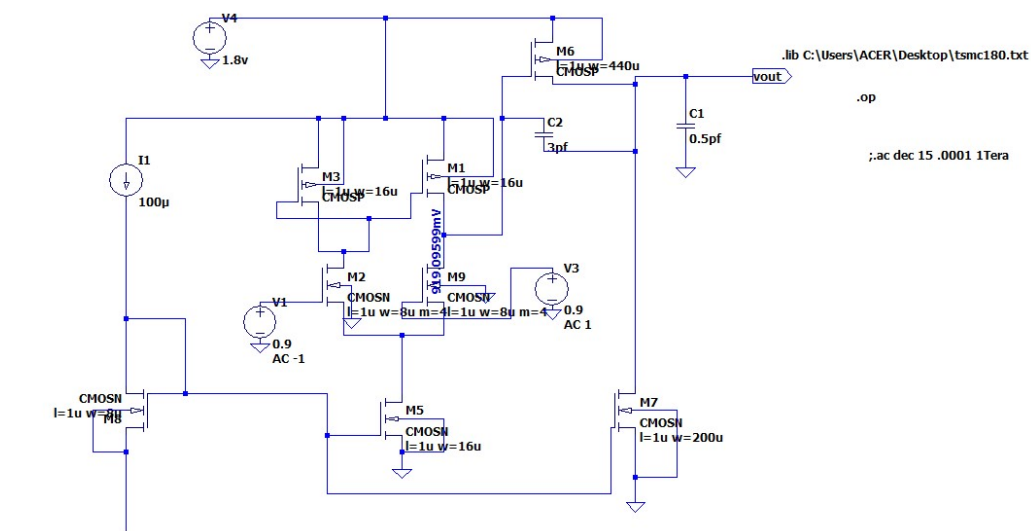
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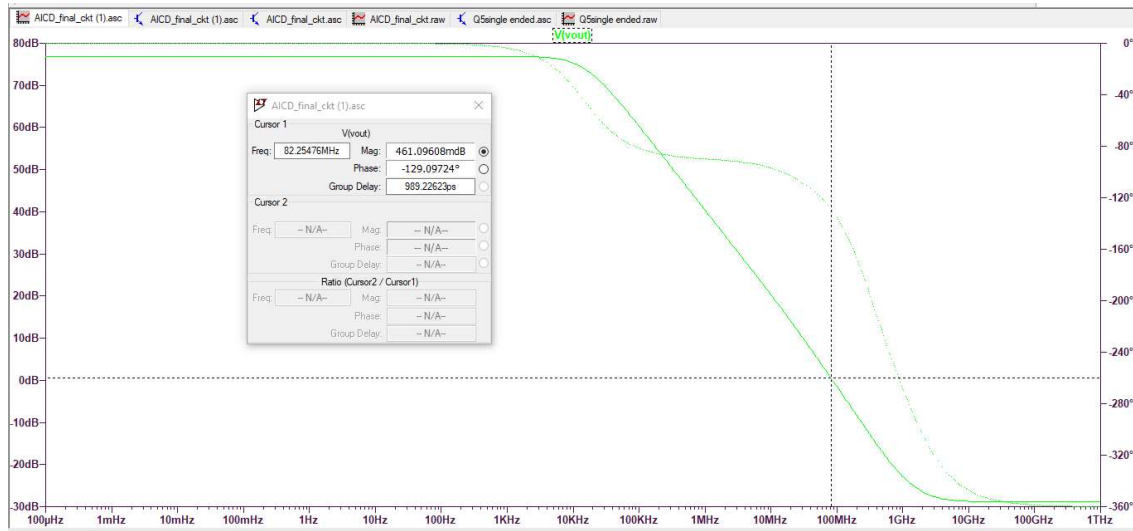
| Name: | m8 | m7 | m5 |
|----------|-----------|-----------|-----------|
| Model: | cmosn | cmosn | cmosn |
| Id: | -1.00e-04 | 2.54e-03 | 1.87e-04 |
| Vgs: | 0.00e+00 | 7.37e-01 | 7.37e-01 |
| Vds: | -7.37e-01 | 1.13e+00 | 2.65e-01 |
| Vbs: | -7.37e-01 | 0.00e+00 | 0.00e+00 |
| Vth: | 4.07e-01 | 4.05e-01 | 4.09e-01 |
| Vdsat: | 2.37e-01 | 2.39e-01 | 2.36e-01 |
| Gm: | 5.84e-04 | 1.48e-02 | 1.04e-03 |
| Gds: | 5.22e-06 | 1.02e-04 | 1.18e-04 |
| Gmb: | 1.59e-04 | 4.03e-03 | 2.86e-04 |
| Chd: | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Chs: | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cgsov: | 6.58e-15 | 1.65e-13 | 1.32e-14 |
| Cgdov: | 6.58e-15 | 1.65e-13 | 1.32e-14 |
| Cgbov: | 9.66e-19 | 9.66e-19 | 9.66e-19 |
| dQgdVgb: | 6.74e-14 | 1.68e-12 | 1.37e-13 |
| dQgdVdb: | -6.44e-15 | -1.60e-13 | -1.58e-14 |
| dQgdVsb: | -5.81e-14 | -1.45e-12 | -1.16e-13 |
| dQddVgb: | -2.83e-14 | -7.07e-13 | -5.86e-14 |
| dQddVdb: | 6.51e-15 | 1.62e-13 | 1.59e-14 |
| dQddVsb: | 2.87e-14 | 7.17e-13 | 5.71e-14 |
| dQbdVgb: | -1.08e-14 | -2.70e-13 | -1.97e-14 |
| dQbdVdb: | -2.00e-18 | 4.38e-16 | -2.75e-15 |
| dQbdVsb: | -5.90e-15 | -1.48e-13 | -1.16e-14 |

Date: Tue Jan 25 15:21:19 2022

Total elapsed time: 0.062 seconds

Open loop





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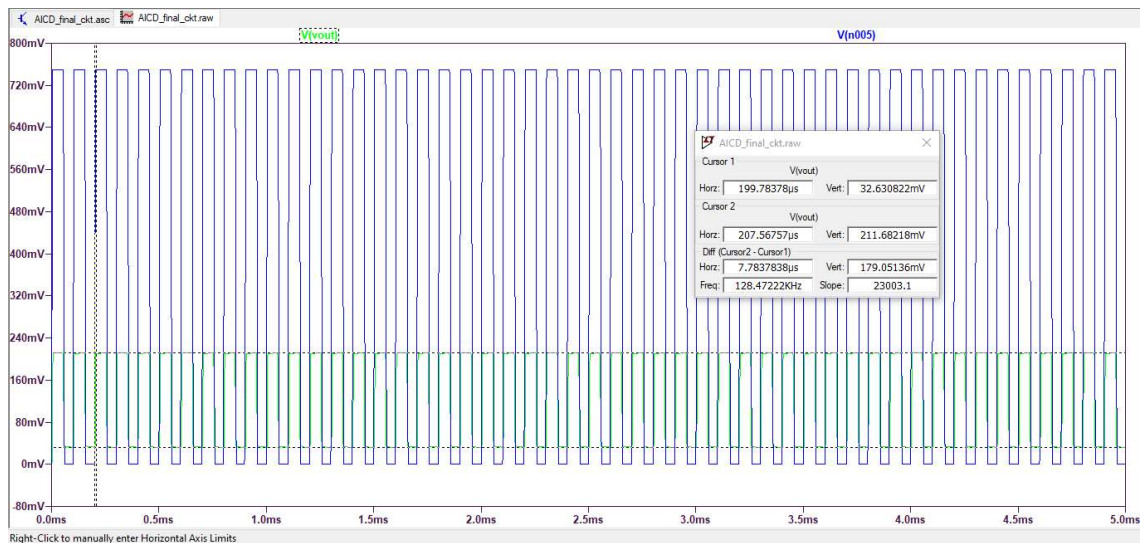
Semiconductor Device Operating Points:

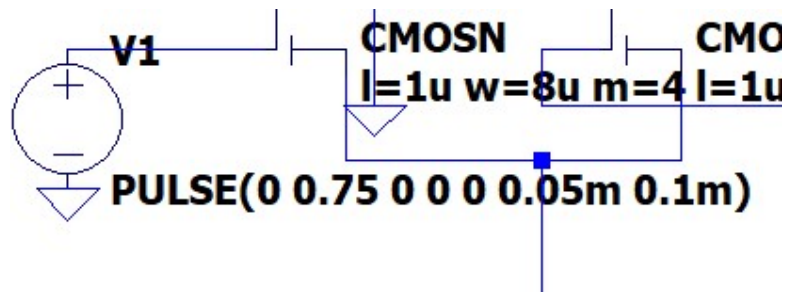
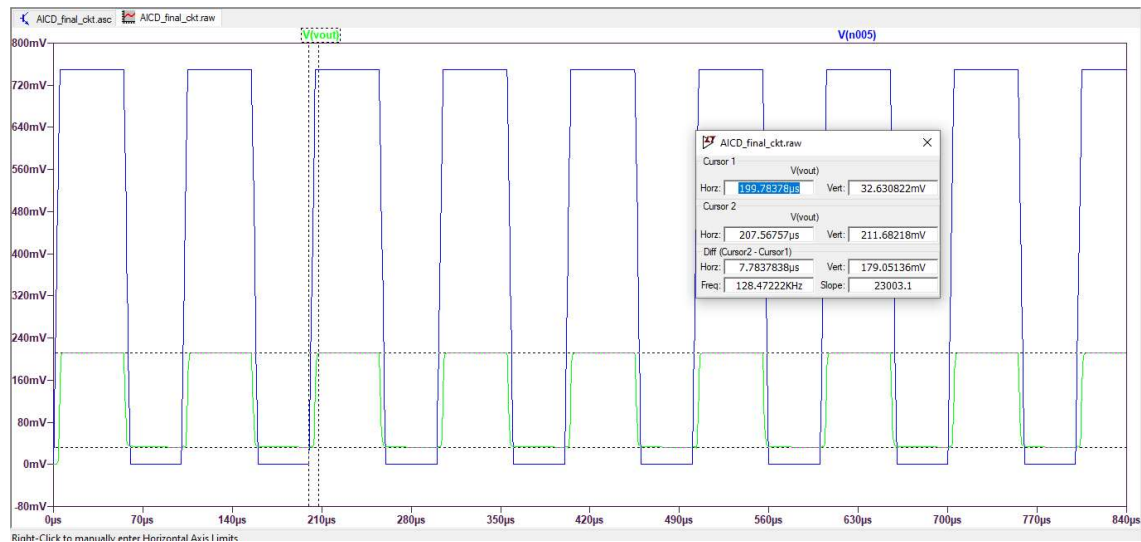
--- BSIM3 MOSFETS ---

| Name: | m3 | m1 | m6 | m2 | m9 |
|----------|-----------|-----------|-----------|-----------|-----------|
| Model: | cmosp | cmosp | cmosp | cmosn | cmosn |
| Id: | 9.34e-05 | 9.34e-05 | 2.54e-03 | 9.34e-05 | 9.34e-05 |
| Vgs: | 0.00e+00 | -2.09e-14 | -2.15e-01 | 6.35e-01 | 6.35e-01 |
| Vds: | 8.81e-01 | 8.81e-01 | 6.66e-01 | 6.54e-01 | 6.54e-01 |
| Vbs: | 8.81e-01 | 8.81e-01 | 6.66e-01 | -2.65e-01 | -2.65e-01 |
| Vth: | -4.18e-01 | -4.18e-01 | -4.19e-01 | 4.85e-01 | 4.85e-01 |
| Vdsat: | -3.52e-01 | -3.52e-01 | -3.52e-01 | 1.28e-01 | 1.28e-01 |
| Gm: | 3.66e-04 | 3.66e-04 | 9.95e-03 | 1.16e-03 | 1.16e-03 |
| Gds: | 4.39e-06 | 4.39e-06 | 1.61e-04 | 8.02e-06 | 8.02e-06 |
| Gmb: | 1.19e-04 | 1.19e-04 | 3.26e-03 | 2.94e-04 | 2.94e-04 |
| Cbd: | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cbs: | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cgs0v: | 1.02e-14 | 1.02e-14 | 2.79e-13 | 2.63e-14 | 2.63e-14 |
| Cgd0v: | 1.02e-14 | 1.02e-14 | 2.79e-13 | 2.63e-14 | 2.63e-14 |
| Cgb0v: | 9.41e-19 | 9.41e-19 | 9.41e-19 | 3.86e-18 | 3.86e-18 |
| dQgdVgb: | 1.25e-13 | 1.25e-13 | 3.45e-12 | 2.65e-13 | 2.65e-13 |
| dQgdVdb: | -9.99e-15 | -9.99e-15 | -2.78e-13 | -2.57e-14 | -2.57e-14 |
| dQgdVsb: | -1.13e-13 | -1.13e-13 | -3.12e-12 | -2.26e-13 | -2.26e-13 |
| dQddVgb: | -5.25e-14 | -5.25e-14 | -1.45e-12 | -1.12e-13 | -1.12e-13 |
| dQddVdb: | 1.01e-14 | 1.01e-14 | 2.80e-13 | 2.60e-14 | 2.60e-14 |
| dQddVsb: | 5.59e-14 | 5.59e-14 | 1.54e-12 | 1.10e-13 | 1.10e-13 |
| dQbdVgb: | -2.03e-14 | -2.03e-14 | -5.55e-13 | -4.09e-14 | -4.09e-14 |
| dQbdVdb: | -2.37e-17 | -2.37e-17 | -3.35e-15 | 3.13e-17 | 3.13e-17 |
| dQbdVsb: | -8.86e-15 | -8.86e-15 | -2.46e-13 | -1.99e-14 | -1.99e-14 |

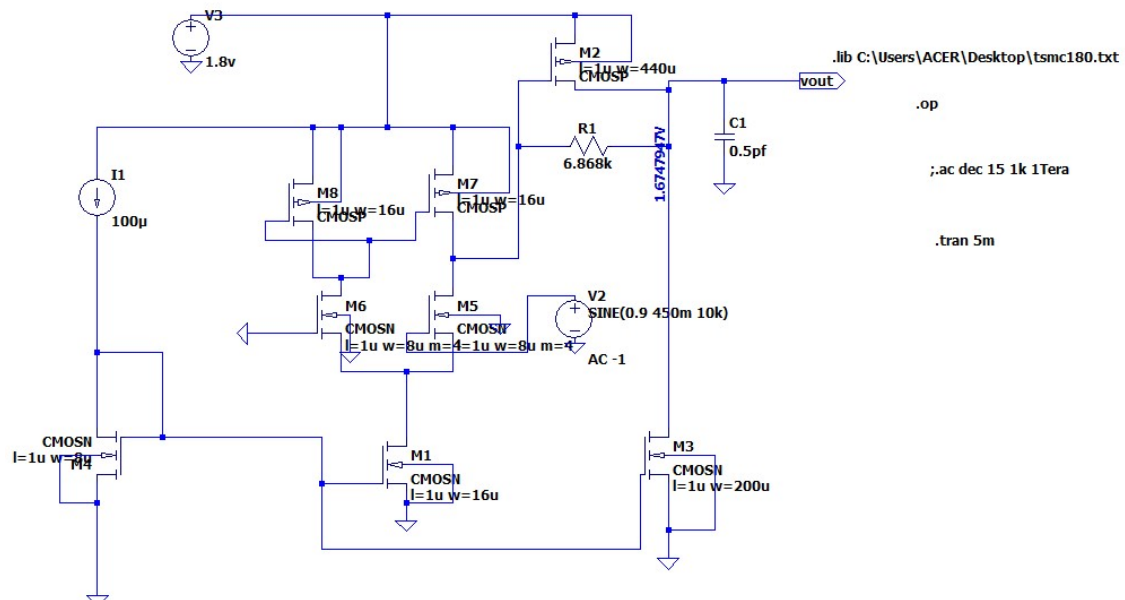
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| Name: | m8 | m7 | m5 |
|----------|-----------|-----------|-----------|
| Model: | cmosn | cmosn | cmosn |
| Id: | -1.00e-04 | 2.54e-03 | 1.87e-04 |
| Vgs: | 0.00e+00 | 7.37e-01 | 7.37e-01 |
| Vds: | -7.37e-01 | 1.13e+00 | 2.65e-01 |
| Vbs: | -7.37e-01 | 0.00e+00 | 0.00e+00 |
| Vth: | 4.07e-01 | 4.05e-01 | 4.09e-01 |
| Vdsat: | 2.37e-01 | 2.39e-01 | 2.36e-01 |
| Gm: | 5.84e-04 | 1.48e-02 | 1.04e-03 |
| Gds: | 5.22e-06 | 1.02e-04 | 1.18e-04 |
| Gmb: | 1.59e-04 | 4.03e-03 | 2.86e-04 |
| Cbd: | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cbs: | 0.00e+00 | 0.00e+00 | 0.00e+00 |
| Cgsov: | 6.58e-15 | 1.65e-13 | 1.32e-14 |
| Cgdov: | 6.58e-15 | 1.65e-13 | 1.32e-14 |
| Cgbov: | 9.66e-19 | 9.66e-19 | 9.66e-19 |
| dQgdVgb: | 6.74e-14 | 1.68e-12 | 1.37e-13 |
| dQgdVdb: | -6.44e-15 | -1.60e-13 | -1.58e-14 |
| dQgdVsb: | -5.81e-14 | -1.45e-12 | -1.16e-13 |
| dQddVgb: | -2.83e-14 | -7.07e-13 | -5.86e-14 |
| dQddVdb: | 6.51e-15 | 1.62e-13 | 1.59e-14 |
| dQddVsb: | 2.87e-14 | 7.17e-13 | 5.71e-14 |
| dQbdVgb: | -1.08e-14 | -2.70e-13 | -1.97e-14 |
| dQbdVdb: | -2.00e-18 | 4.38e-16 | -2.75e-15 |
| dQbdVsb: | -5.90e-15 | -1.48e-13 | -1.16e-14 |

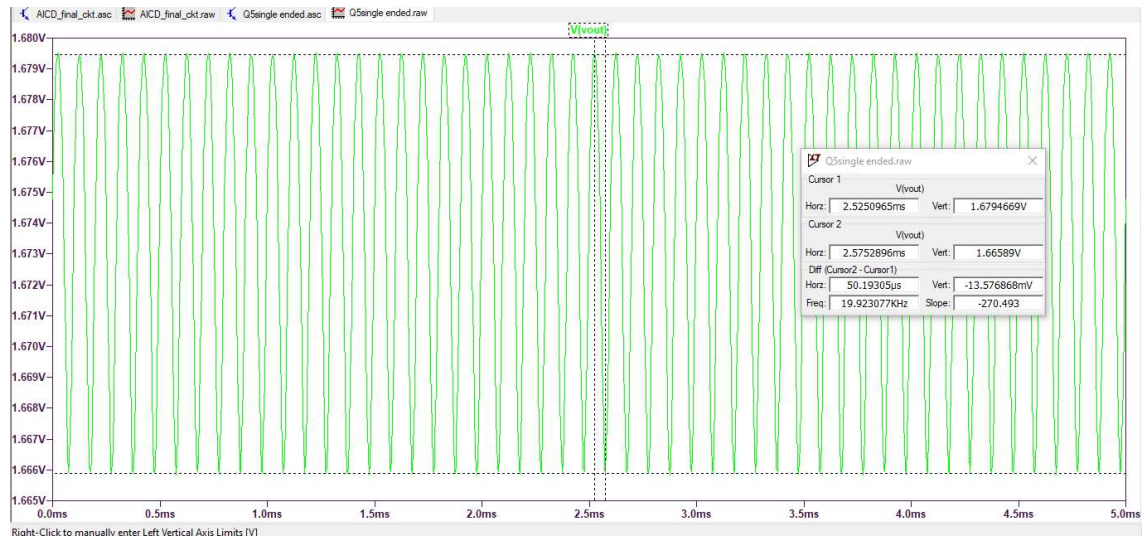




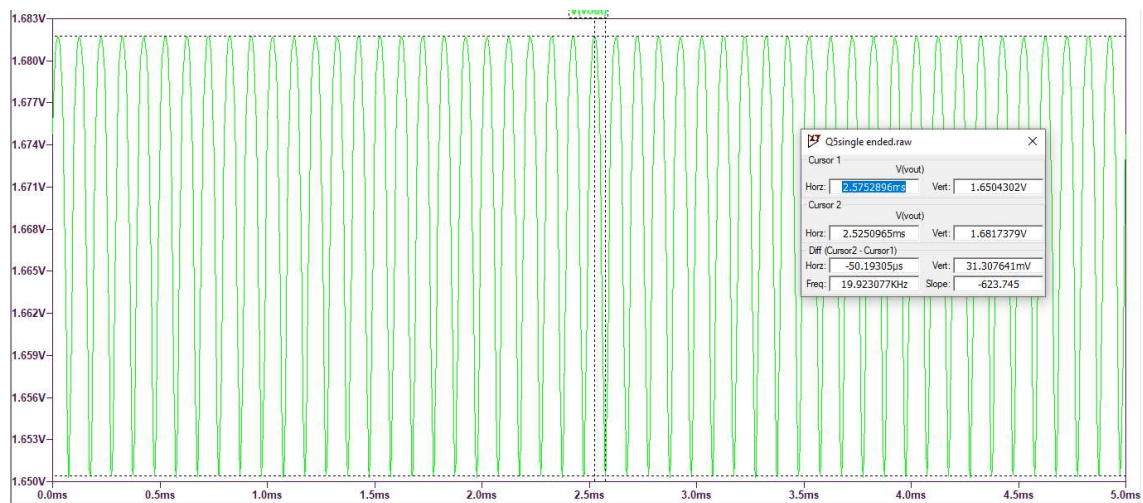
Slew rate=0.0229 v/us



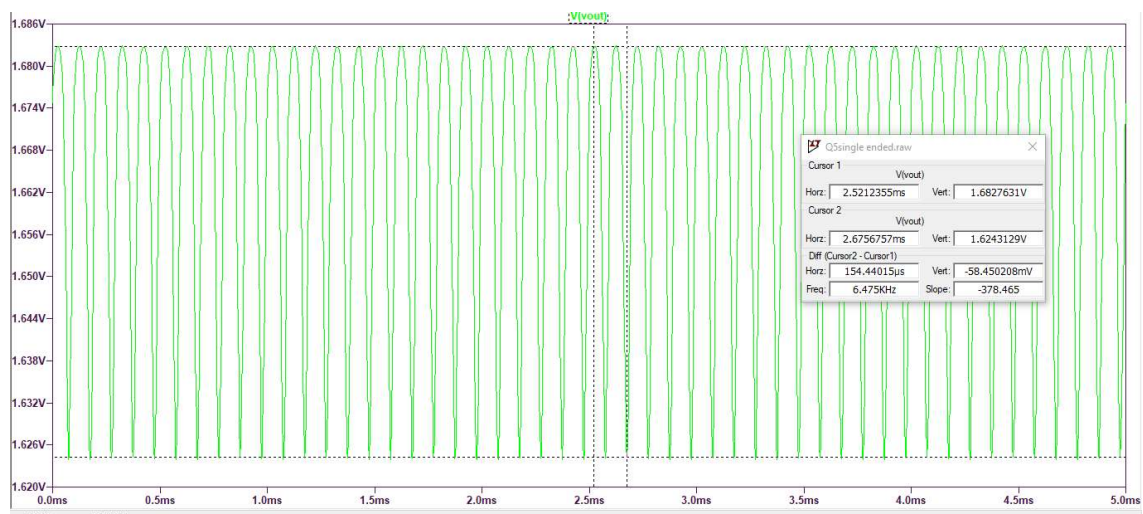
100m pp



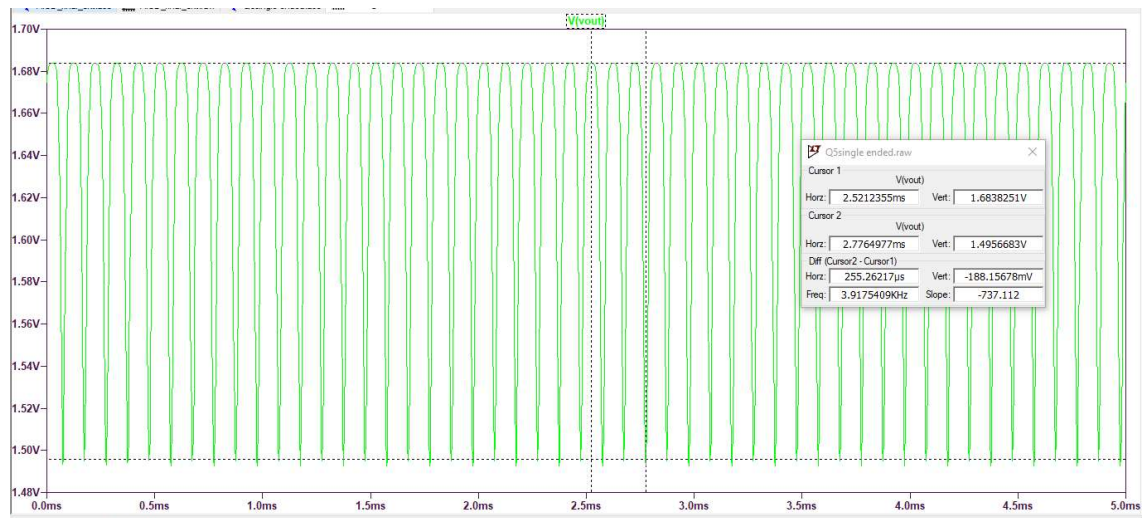
200m pp



300m pp



500m pp



900m pp

