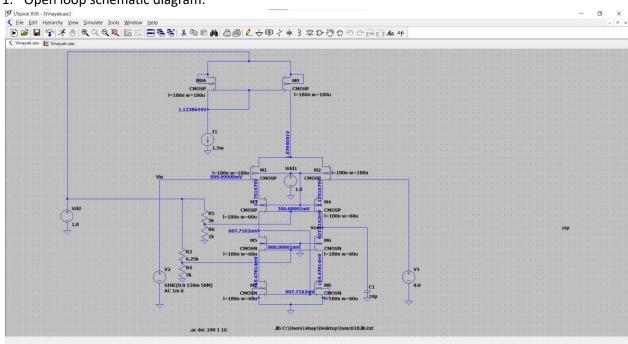
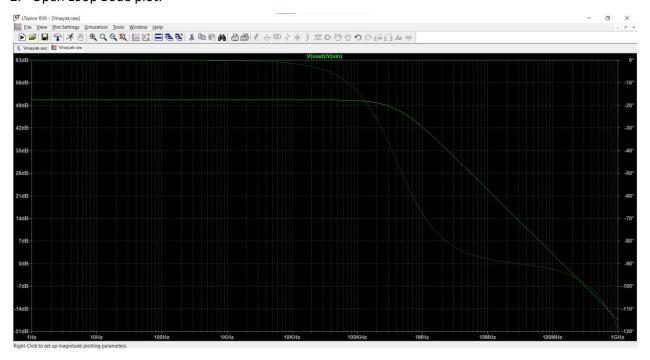
Gm Calculations:

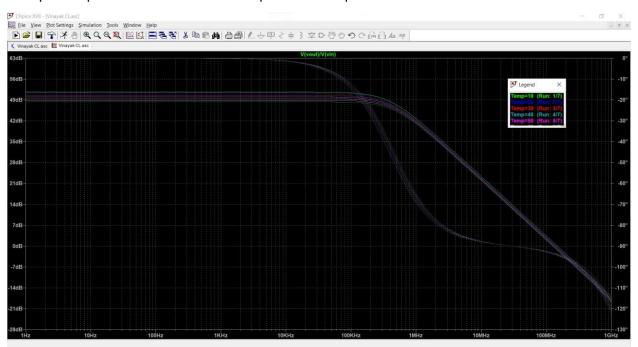
1. Open loop schematic diagram:



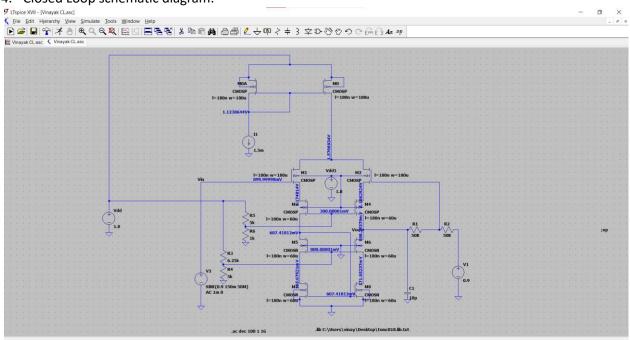
2. Open Loop Bode plot:



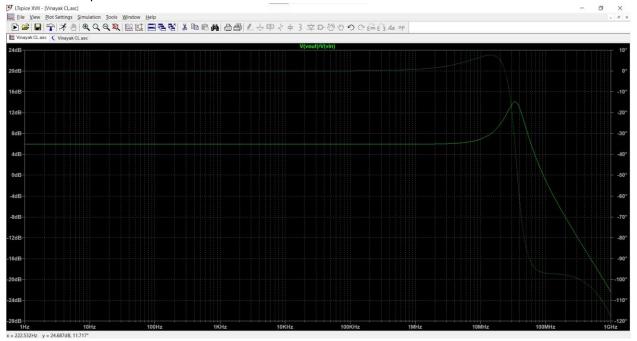
3. Open Loop Bode Plot Variation for temperature sweep of 0°C to 70°C:



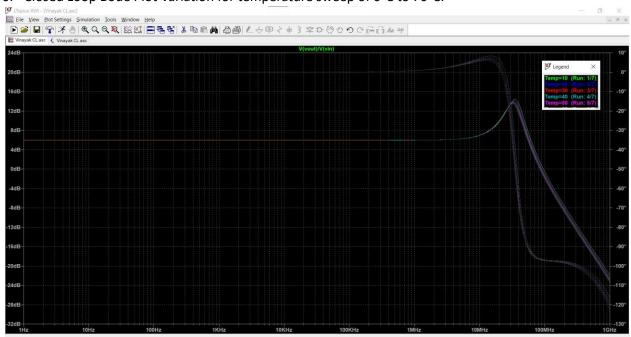
4. Closed Loop schematic diagram:



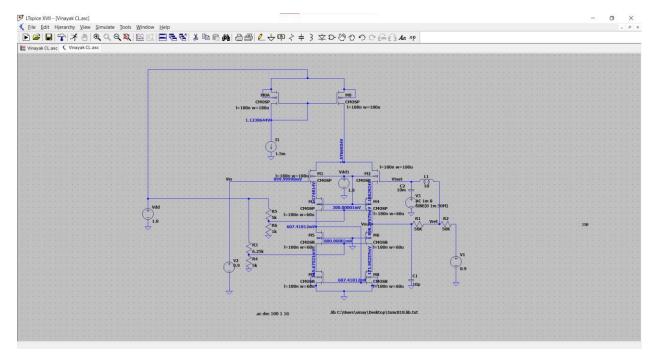
5. Closed Loop Bode Plot:



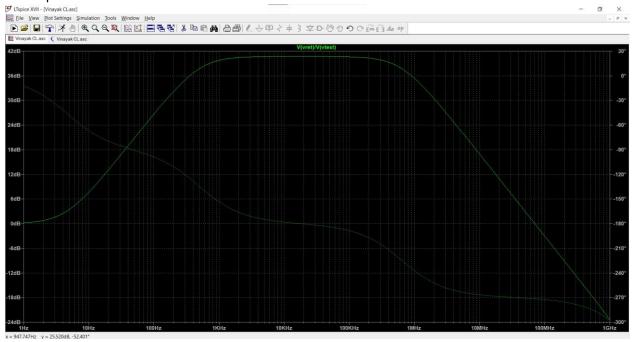
6. Closed Loop Bode Plot Variation for temperature sweep of 0°C to 70°C:



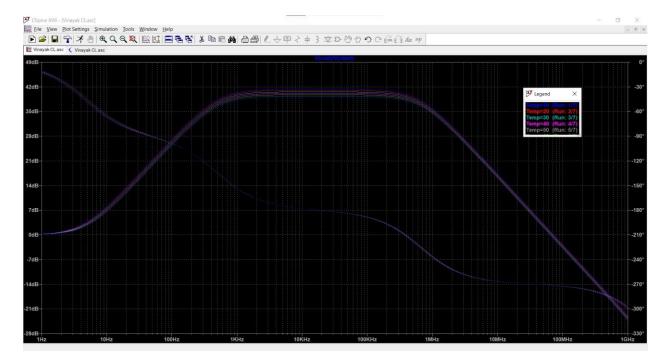
7. Loop Gain schematic diagram:



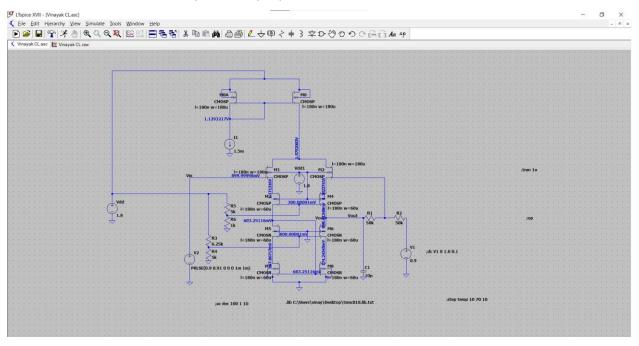
8. Loop Gain Bode Plot:



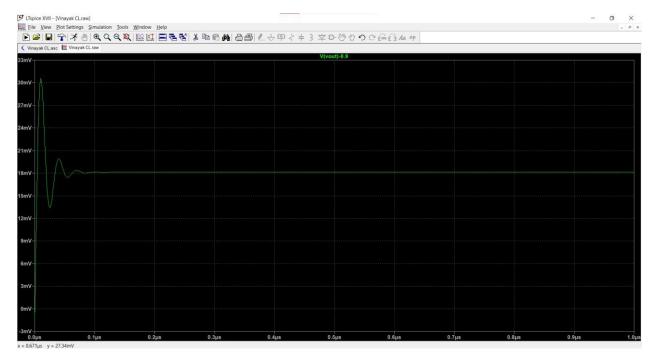
9. Loop Gain Bode Plot Variation for temperature sweep of 0°C to 70°C:



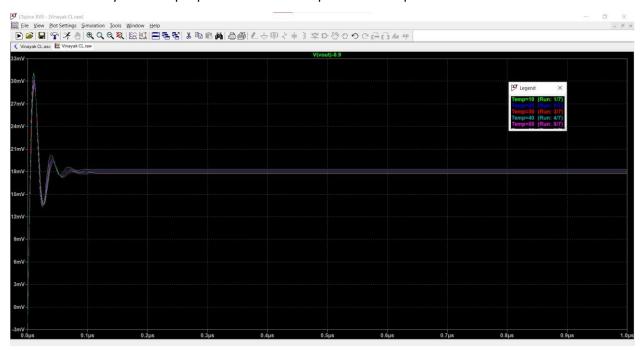
10. Schematic for Transient analysis for step input of 0.01V:



11. Transient response for step input of 0.01V:



12. Transient analysis for step input of 0.01V for temperature sweep of 0°C to 70°C:

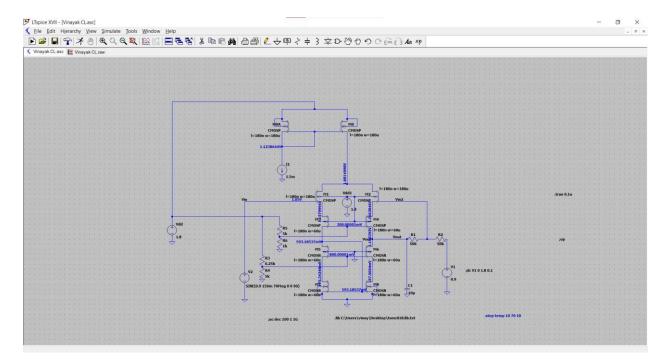


Steady State Error Calculation:

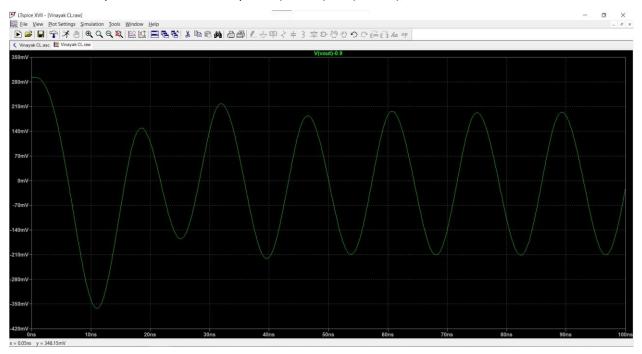
Steady state error calculation =

$$\frac{V_0}{V_1} = \frac{1}{H} \left(\frac{GH}{1+GH} \right)$$
 $H_c = \frac{1}{2}$
 $\frac{V_0}{V_1} = (2) \left(\frac{3m \cdot R}{1+9m \cdot R} \right) = Rx \left(\frac{6.28m \times Solc}{1+6.28m \times Solc} \right)$
 $\frac{V_0}{1+6.28m \times So} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{V_0}{1+6.28m \times Solc} = \frac{6.28m \times Solc}{1+6.28m \times Solc}$
 $\frac{$

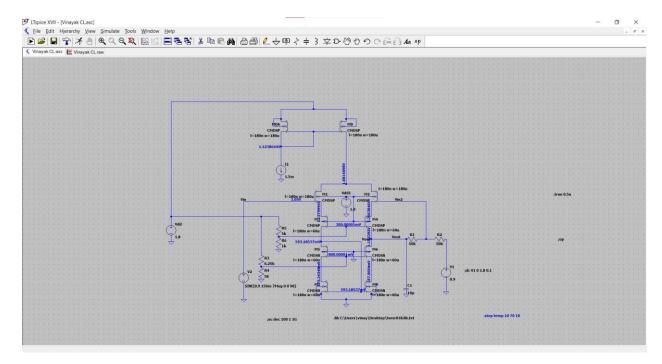
13. Schematic for Transient for Sinusoidal input of (150mv)COS(W_{3dB}*t), W_{3dB}= 2π *70MHz=439.82 Mrad/sec:



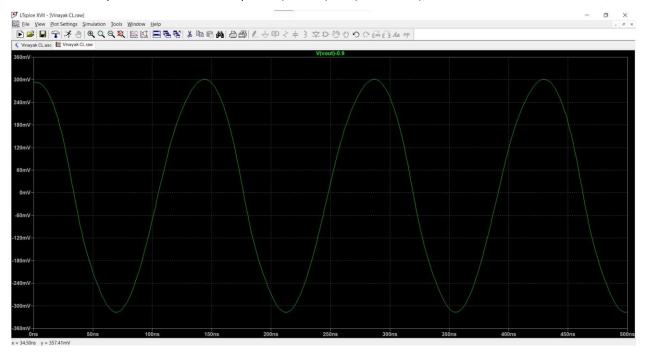
14. Transient response for Sinusoidal input of (150mv)COS(W_{3dB} *t), W_{3dB} =2 π *70MHz=439.82 Mrad/sec:



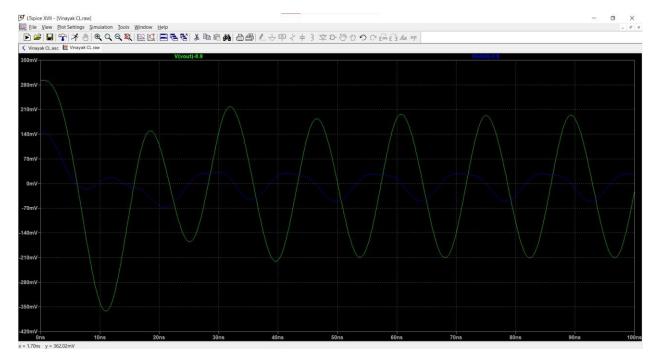
15. Schematic for Transient for Sinusoidal input of (150mv)COS(W_{3dB}/10*t), W_{3dB}= 2π *7MHz=43.982 Mrad/sec:



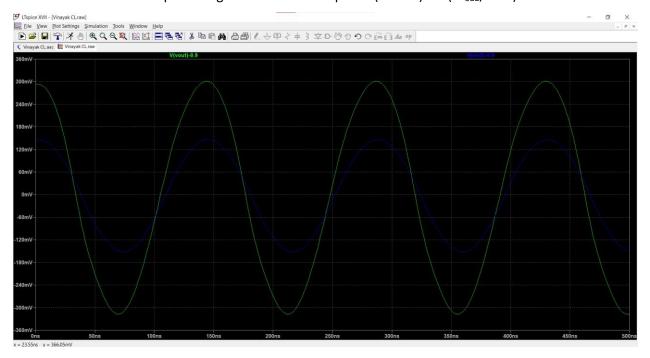
16. Transient response for Sinusoidal input of (150mv)COS($W_{3dB}/10*t$), $W_{3dB}=2\pi*7MHz=43.982$ Mrad/sec:



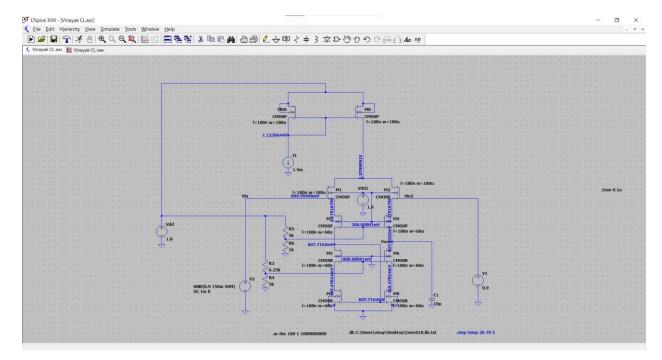
17. Difference between input voltages for Sinusoidal input of (150mv)COS(W_{3dB}*t):



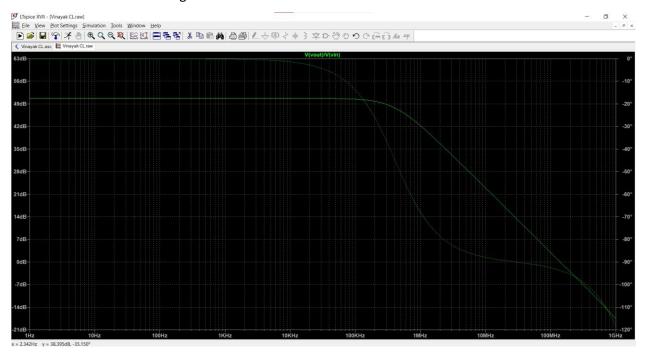
18. Difference between input voltages for Sinusoidal input of (150mv)COS($W_{3dB}/10*t$):



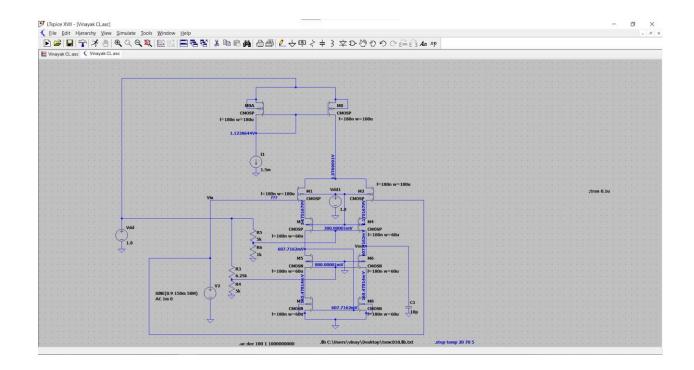
19. Schematic for differential gain:



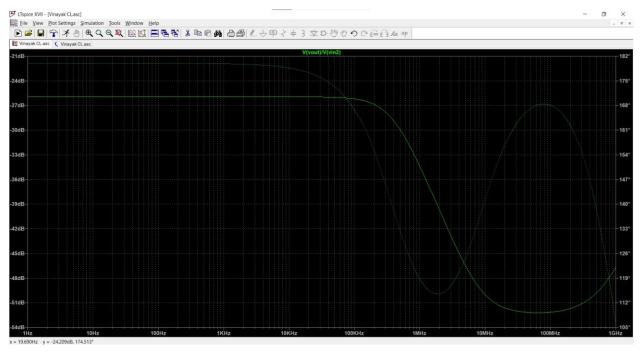
20. Bode Plot for differential gain:



21. Schematic for common mode gain:

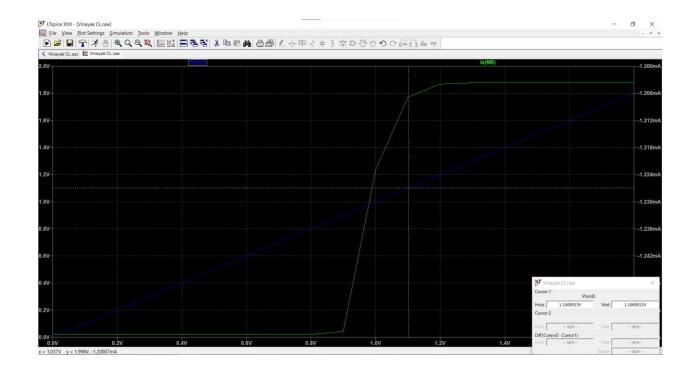


22. Bode Plot for common mode gain:



23. ICMR-:

V1 Sweep from 0 to 1.8Volt & Current Io is observed. At edge of saturation, VBIAS value is noted as: 1.1V



Parameters of MOSFET:

Semiconductor Device Operating Points:

--- BSIM3 MOSFETS ---

Name:	m3	m4	m0a	m0	m2
Model:	cmosp	cmosp	cmosp	cmosp	cmosp
Id:	6.27e-04	6.32e-04	1.50e-03	1.26e-03	6.32e-04
Vgs:	-3.07e-01	-5.98e-01	0.00e+00	-4.53e-01	-2.87e-01
Vds:	5.67e-01	2.88e-01	6.76e-01	2.23e-01	3.90e-01
Vbs:	1.19e+00	9.02e-01	6.76e-01	2.23e-01	6.14e-01
Vth:	-6.82e-01	-6.80e-01	-5.09e-01	-5.10e-01	-5.76e-01
Vdsat:	-1.76e-01	-1.85e-01	-1.46e-01	-1.45e-01	-1.09e-01
Gm:	5.58e-03	5.13e-03	1.59e-02	1.29e-02	9.18e-03
Gds:	1.63e-04	4.43e-04	2.92e-04	1.16e-03	2.37e-04
Gmb	1.44e-03	1.33e-03	4.77e-03	3.91e-03	2.57e-03
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:	3.81e-14	3.81e-14	1.14e-13	1.14e-13	1.14e-13
Cgdov:	3.81e-14	3.81e-14	1.14e-13	1.14e-13	1.14e-13
Cgbov:	1.21e-19	1.21e-19	1.21e-19	1.21e-19	1.21e-19
dQgdVgb:	1.28e-13	1.29e-13	3.86e-13	3.87e-13	3.79e-13
dQgdVdb:	-3.80e-14	-3.82e-14	-1.14e-13	-1.15e-13	-1.14e-13
dQgdVsb:	-8.98e-14	-8.99e-14	-2.67e-13	-2.67e-13	-2.60e-13
dQddVgb:	-5.84e-14	-5.87e-14	-1.75e-13	-1.76e-13	-1.72e-13
dQddVdb:	3.80e-14	3.83e-14	1.14e-13	1.15e-13	1.14e-13
dQddVsb:	2.55e-14	2.56e-14	7.93e-14	7.95e-14	7.40e-14
dQbdVgb:	-1.14e-14	-1.12e-14	-3.65e-14	-3.53e-14	-3.55e-14
dQbdVdb:	-2.71e-17	-2.82e-16	-2.13e-17	-1.29e-15	-9.93e-17
dQbdVsb:	6.49e-16	5.89e-16	-5.86e-15	-6.10e-15	-2.56e-15
	_	_	_	_	_
Name:	m1	m6	m5	m7	m8
Model:	cmosp	cmosn	cmosn	cmosn	cmosn
Model: Id:	cmosp 6.27e-04	cmosn 6.32e-04	cmosn 6.27e-04	cmosn 6.27e-04	cmosn 6.32e-04
Model: Id: Vgs:	cmosp 6.27e-04 -2.75e-01	cmosn 6.32e-04 6.28e-01	cmosn 6.27e-04 6.34e-01	cmosn 6.27e-04 6.07e-01	cmosn 6.32e-04 6.07e-01
Model: Id: Vgs: Vds:	cmosp 6.27e-04 -2.75e-01 4.02e-01	cmosn 6.32e-04 6.28e-01 7.26e-01	cmosn 6.27e-04 6.34e-01 4.42e-01	cmosn 6.27e-04 6.07e-01 1.66e-01	cmosn 6.32e-04 6.07e-01 1.72e-01
Model: Id: Vgs: Vds: Vbs:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00
Model: Id: Vgs: Vds: Vbs: Vth:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01
Model: Id: Vgs: Vds: Vbs: Vth: Vdsat:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02
Model: Id: Vgs: Vds: Vbs: Vth: Vdsat: Gm:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03
Model: Id: Vgs: Vds: Vds: Vbs: Vth: Vdsat: Gm: Gds:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04
Model: Id: Vgs: Vds: Vbs: Vth: Vdsat: Gm: Gds: Gmb	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03
Model: Id: Vgs: Vds: Vbs: Vth: Vdsat: Gm: Gds: Gmb	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00
Model: Id: Vgs: Vds: Vbs: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: dQgdVgb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19 3.79e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.21e-19 3.79e-13 -1.14e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb: dQgdVsb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVgb: dQgdVgb: dQgdVgb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13 -1.72e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13 -7.20e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13 -7.23e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13 -7.33e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13 -7.33e-14
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb: dQgdVgb: dQddVgb: dQddVgb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13 -1.72e-13 1.14e-13	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13 -7.20e-14 4.92e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13 -7.23e-14 4.93e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13 -7.33e-14 4.98e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13 -7.33e-14 4.97e-14
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb: dQgdVdb: dQddVdb: dQddVdb: dQddVsb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13 -1.72e-13 1.14e-13 7.39e-14	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13 -7.20e-14 4.92e-14 2.85e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13 -7.23e-14 4.93e-14 2.89e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13 -7.33e-14 4.98e-14 3.01e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+01 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13 -7.33e-14 4.97e-14 3.01e-14
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb: dQddVgb: dQddVgb: dQddVgb: dQddVgb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13 -1.72e-13 1.14e-13 7.39e-14 -3.55e-14	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13 -7.20e-14 4.92e-14 2.85e-14 -1.44e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13 -7.23e-14 4.93e-14 2.89e-14 -1.43e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13 -7.33e-14 4.98e-14 3.01e-14 -1.40e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13 -7.33e-14 4.97e-14 3.01e-14 -1.41e-14
Model: Id: Vgs: Vds: Vds: Vth: Vdsat: Gm: Gds: Gmb Cbd: Cbs: Cgsov: Cgdov: Cgdov: dQgdVgb: dQgdVdb: dQgdVdb: dQddVdb: dQddVdb: dQddVsb:	cmosp 6.27e-04 -2.75e-01 4.02e-01 6.25e-01 -5.76e-01 -1.08e-01 9.14e-03 2.27e-04 2.56e-03 0.00e+00 0.00e+00 1.14e-13 1.21e-19 3.79e-13 -1.14e-13 -2.60e-13 -1.72e-13 1.14e-13 7.39e-14	cmosn 6.32e-04 6.28e-01 7.26e-01 -1.72e-01 5.43e-01 8.51e-02 9.75e-03 2.62e-04 2.29e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.58e-13 -4.91e-14 -1.03e-13 -7.20e-14 4.92e-14 2.85e-14	cmosn 6.27e-04 6.34e-01 4.42e-01 -1.66e-01 5.43e-01 8.78e-02 9.59e-03 3.14e-04 2.27e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.59e-13 -4.91e-14 -1.04e-13 -7.23e-14 4.93e-14 2.89e-14	cmosn 6.27e-04 6.07e-01 1.66e-01 0.00e+00 5.01e-01 9.25e-02 8.93e-03 8.61e-04 2.23e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.96e-14 -1.05e-13 -7.33e-14 4.98e-14 3.01e-14	cmosn 6.32e-04 6.07e-01 1.72e-01 0.00e+00 5.01e-01 9.26e-02 9.03e-03 8.16e-04 2.26e-03 0.00e+00 0.00e+00 4.94e-14 4.94e-14 1.46e-19 1.61e-13 -4.95e-14 -1.05e-13 -7.33e-14 4.97e-14 3.01e-14