$$n = 1 + N_{factor}\frac{C_d}{C_{ox}} + \frac{(C_{dsc} + C_{dscd}V_{ds} + C_{dscb}V_{bseff})\left(\exp(-D_{VT1}\frac{L_{eff}}{2l_t}) + 2\exp(-D_{VT1}\frac{L_{eff}}{l_t})\right)}{C_{ox}} + \frac{C_{it}}{C_{ox}}$$

$$C_d = \frac{\varepsilon_{si}}{X_{dep}}$$

B.1.3 Mobility

For mobMod=1

$$\mu_{eff} = \frac{\mu_o}{1 + (U_a + U_c V_{bseff})(\frac{V_{gsteff} + 2V_{th}}{T_{OX}}) + U_b(\frac{V_{gsteff} + 2V_{th}}{T_{OX}})^2}$$

For mobMod=2

$$\mu_{eff} = \frac{\mu_o}{1 + (U_{a\,+} U_c V_{bseff})(\frac{V_{gsteff}}{T_{OX}}) + U_b(\frac{V_{gsteff}}{T_{OX}})^2}$$

For mobMod=3

$$\mu_{eff} = \frac{\mu_o}{1 + [U_a(\frac{V_{gsteff} + 2V_{th}}{T_{OX}}) + U_b(\frac{V_{gsteff} + 2V_{th}}{T_{OX}})^2](1 + U_c V_{bseff})}$$