

mos_pass_c.sqproj

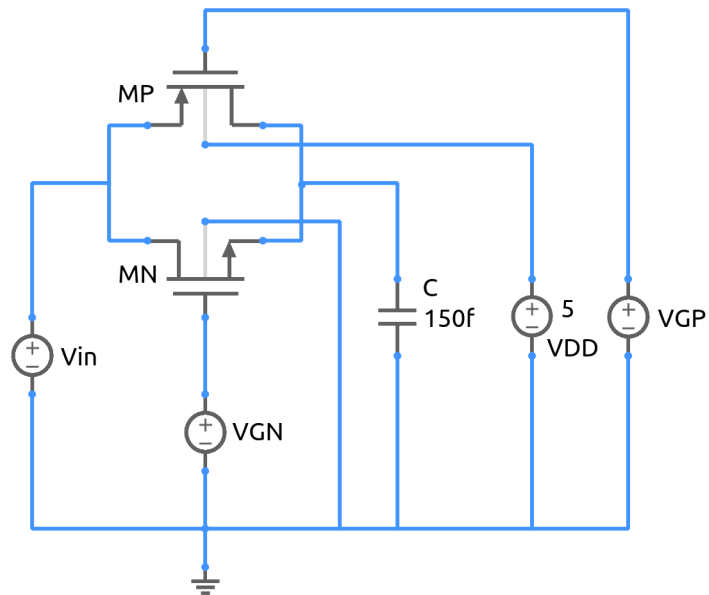


Figure 1: CMOS transmission gate.

Fig. 1 shows a CMOS transmission gate. The input voltage, the gate voltages for the n - and p -transistors, and the output voltage are shown in Fig. 2 as a function of time.

Exercise Set

1. Explain the operation of the transmission gate with the help of the waveforms in Fig. 2.
2. Compare the output voltage of the CMOS transmission gate with that of the NMOS transmission gate (`mos_pass_n.sqproj`).

References

1. R. J. Baker, H. W. Li, and D. E. Boyce, *CMOS Circuit Design, Layout, and Simulation*, Prentice-Hall India, 1998.

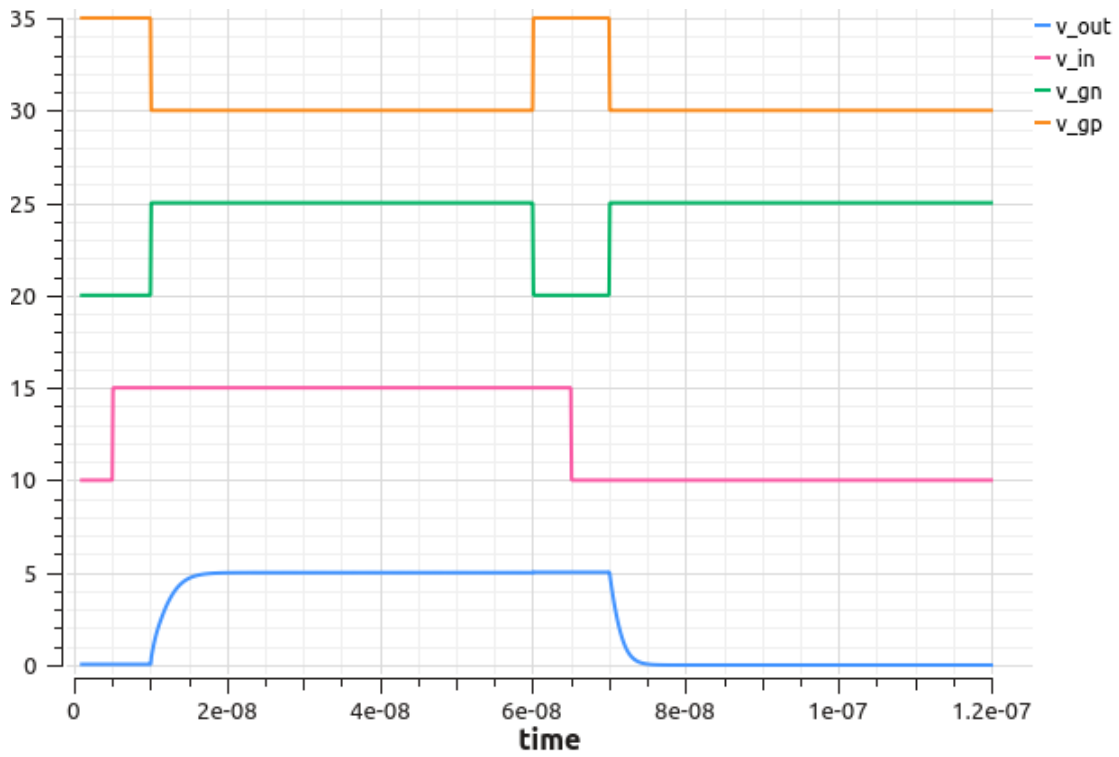


Figure 2: Simulation results for the CMOS transmission gate shown in Fig. 1. Note that the plots are offset by 10, 20, 30 for clarity.