

ELEC-313
Lab 5: CMOS Circuits

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1 Objective

The objective is to construct and observe the operation of a CMOS inverter and NAND gate.

2 Equipment

- ALD1105 Dual N-channel and P-channel matched pair MOSFET
- Power supply: HP E3631A
- Oscilloscope: Agilent 54622D
- Function generator: HP 33120A

3 Schematics

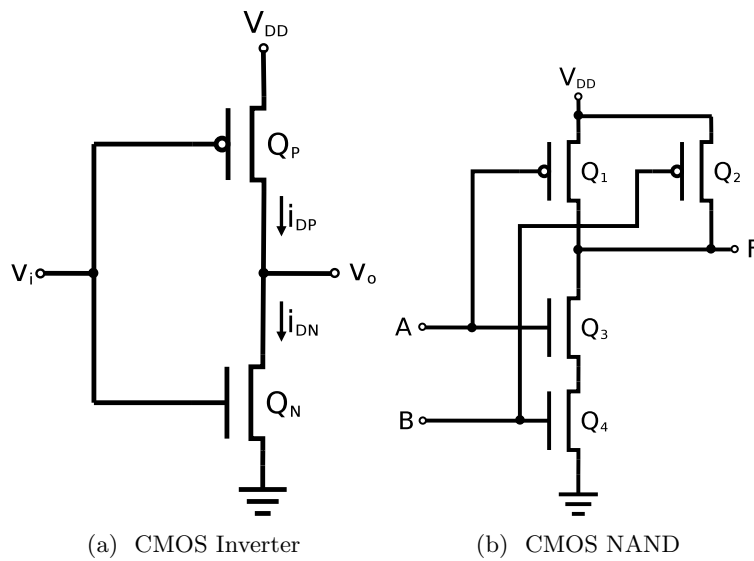


Figure 1: Circuits used in this lab.

4 Procedure

4.1 CMOS Inverter

4.2 CMOS NAND

5 Results

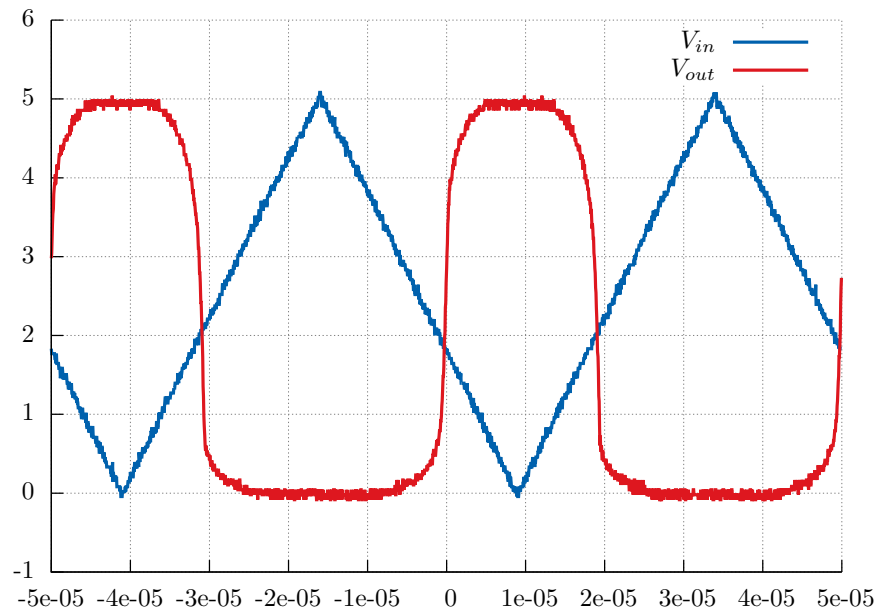


Figure 2: Output of CMOS inverter

6 Conclusion

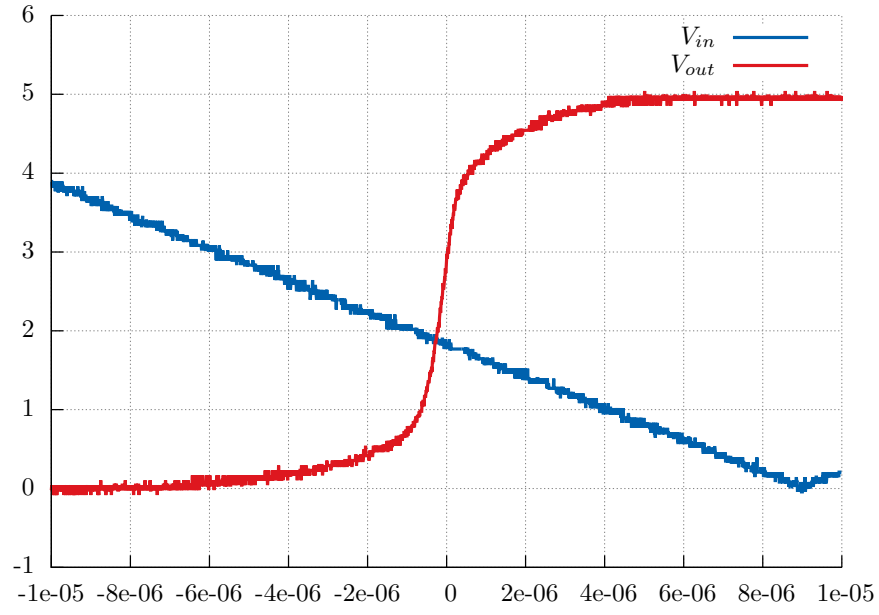


Figure 3: Data 2

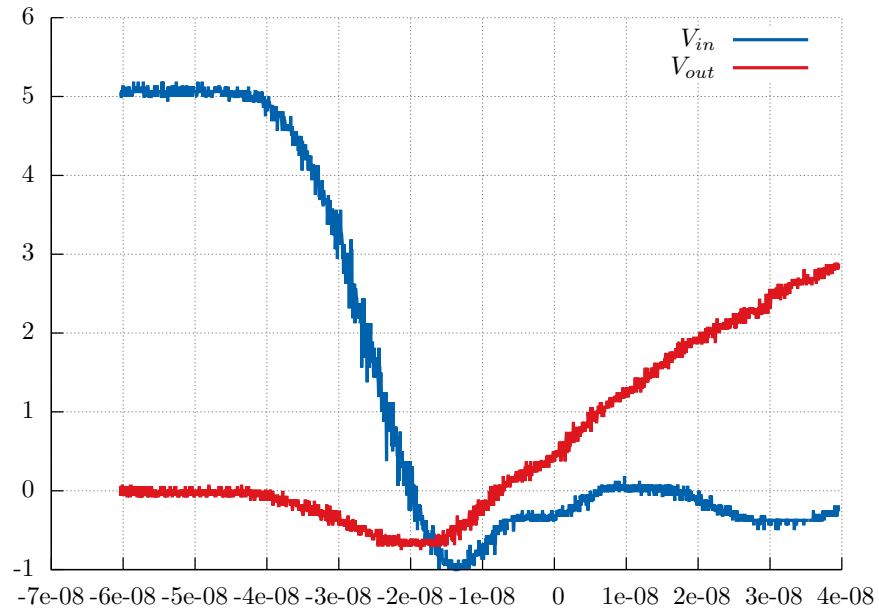


Figure 4: Data 3

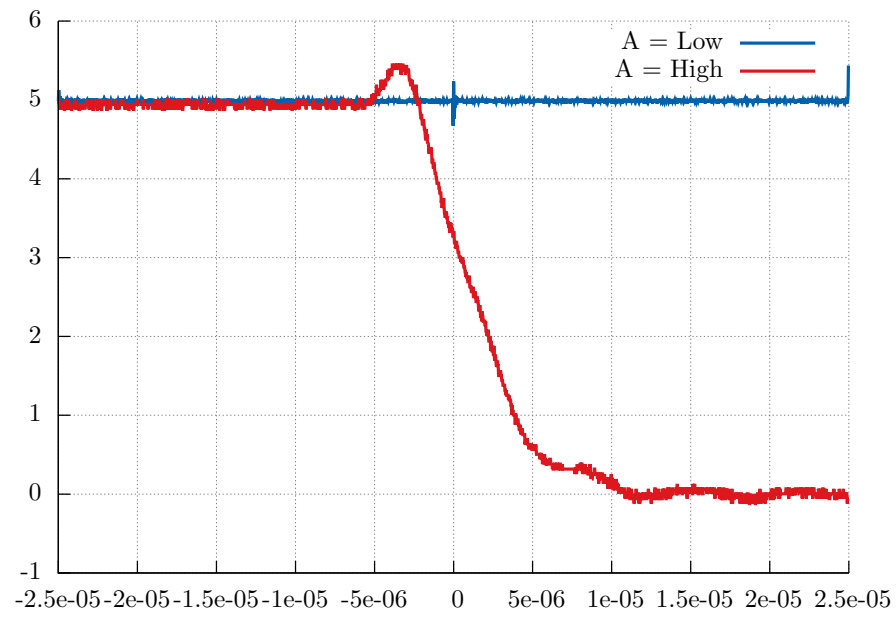


Figure 5: Output of CMOS NAND gate