

1 Experiment No. 3

2 Experiment Title

Design and Analyze 2 Input NAND and AND Gates Using 1-Finger and 2-Finger MOS on MICROWIND 3.0

3 Objective

The main objectives of this report are:

- To design and simulate a CMOS inverter using MICROWIND 3.0.
- To ensure proper compliance with Design Rule Check (DRC) requirements during the design process.
- To design and simulate a tri-state inverter using MICROWIND 3.0
- To analyze the functionality and switching characteristics of both CMOS and tri-state inverters.

4 Theory

5 Schematic Layout

6 Specification

7 Output Waveshape

8 Discussion

Figure 1