

Installation of TSMC 180 nm Technology Files

in LT SPICE

NMOS & PMOS Characterization

Sanjay Vidhyadharan

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- 1. Download the following files from my webpage https://sanjayvidhyadharan.in/Downloads
 - (a) tsmc018.lib(b) cmosn.asy(c) cmosp.asy

tsmc_180_nm.zip and extract it

2. Download LTSPICE and Install it

LT SPICE Webpage

https://sanjayvidhyadharan.in/Downloads

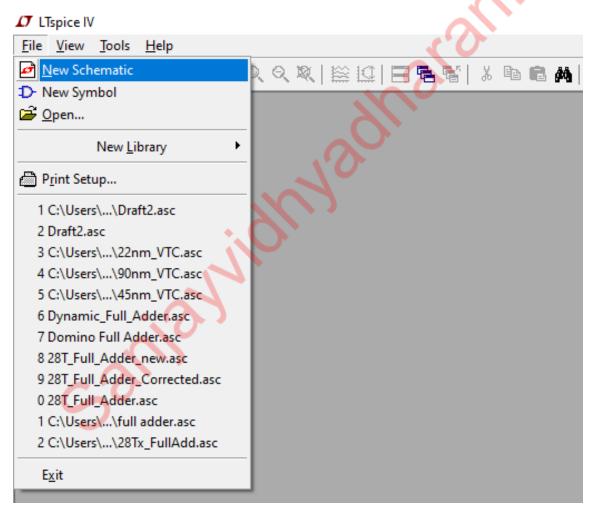
LT_SPICE_Instaltion_Files.rar and extract it

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3. Open LTSPICE. And open a New Schematic from File tab.



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4. Open LT SPICE, Open New Schematic and Click on the Component tab (looks like a AND gate) on the new schematic window.

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5. Note the path of the LT SPICE lib file

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6. In the folder C:\Users\Monua\Documents\LTSPICE\lib\sym

Paste (a) cmosn.asy (b) cmosp.asy

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7. In the folder C:\Users\Monua\Documents\LTSPICE\lib\sub

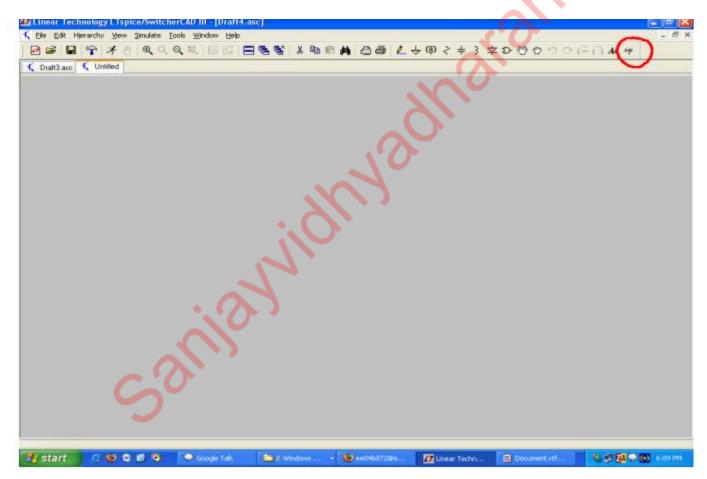
Paste

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(c) tsmc018.lib

CMOS INVERTER

5. Click on the SPICE Directive tab as shown below:-



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CMOS INVERTER

5. Select SPICE Directive and Type .INCLUDE tsmc018.lib

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	Type Ctrl-M to start a new line.		

6. You can select cmosn or cmosp from component menu and set the required W and L.

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