CNT Interconnect models in Verilog-A

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Example of Circuit Benchmark for Interconnect model

Compact RC model: including Quantum resistance and capacitance; as well as electrostatic capacitance
Verilog-A code ➔ Symbol in Cadence

- Easy to integrate on your Architecture schematic.
Other type of CNTs Interconnects

Pristine SWCNT interconnect

Doped SWCNT interconnect
Verilog-A code ➔ Symbol in Cadence

- Easy to change the CNT dimension and doping concentrations.

> L: length of CNTs.
> Dmax: Diameter of CNT
> Contact resistance Rc: can be varied between 1 to 10 kΩ.
> Doping concentration Nc: can be varied between 2 to 8.