

PDK summary

PDK ID: Silvaco Radiofrequency Demo
PDK version: 1.1.6.R
PDK release date: 10/07/2009
Fab/Foundry name: Silvaco Demo
Technology name: -

(1) Certified Simucad EDA tool versions for this PDK version:

Gateway 2.8.25.R
 SmartSpice 3.10.8.R
 SmartSpiceRF 1.5.10.C
 Expert 4.4.22.R
 Guardian 4.4.22.R
 HIPEX 3.2.16.R
 SmartView 2.22.8.R

(2) Important procedures for PDK version migration:

1. **EXPERT - LOADING EXISTING PROJECT (.eld file) with NEW TECHNOLOGY (.tcn file)**: Please use the new technology (.tcn) file included in this version of PDK when opening existing projects (.eld) at the first time with this version of PDK, to update technology setting. Please make sure that you have backup of project files before doing this procedure. To enable to select a technology (.tcn) file in “Load Project” window, it is necessary to select (check) options “Use external technology file for eld projects” and “Identify layers by name” in “Preferences” window (Menu: Setup→Technology→General). Please refer to Expert manual “4.2.1: Technology File Selection” for more detail.
2. **SYMBOLS (.body file)** – Update to new symbols (.symbols): Please update your schematics to the latest workspace (simucad-radiofrequency-demo_sbcd .workspace).
3. New devices added into pdk.
4. Documentation updated.

(3) Changes for this PDK version (see below list for change code legends):

1. New devices and models added into pdk - rfnmos2v, rfnmos3v, varactor, mimcap, rpoly_rf.
2. change in model file SBCD_rf.lib
3. NDL capability has been added into PDK for all devices.
4. updates to the drc and lvs files.
5. Provided new example circuits – LNA, mixer, vco and switched-capacitor (sc)

Change Codes**Affected Tool Functions:**

Code A: Gateway - Schematic Edit
Code B: Gateway - Spice Net Generation
Code C: Gateway - LVS Net Generation
Code D: Gateway - NDL Net Generation
Code E: Gateway/SmartSpice - Spice Simulation
Code F: Gateway/SmartView - Wave View
Code G: Expert - Layout Edit
Code H: Expert - Pcells
Code I: Expert - NDL
Code J: Expert/Guardian DRC - DRC
Code K: Expert/Guardian NET - Net extraction
Code L: Expert/Guardian LVS - LVS
Code M: Expert/Hipex RC - RC extraction
Code Z: Others

Change Reasons:

Code 1: Bug fix
Code 2: Fab/Foundry file update
Code 3: Function improvement
Code 9: Others