

## PDK summary

**PDK ID:** dongbu-i13sh  
**PDK version:** 0.1.1.R  
**PDK release date:** 07/23/2010  
**Fab/Foundry name:** DONGBU  
**Technology name:** 1533IL13SH IMAGE SENSOR 0.13UM 1P3M  
 1.5V/3.3V Process

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### **This PDK supports the following devices:**

- \* 1.5V normal N/PMOS, 3.3V normal N/PMOS, 3.3V Medium Vt. NMOS.
- \* PNP Bipolar Transistor, NPN Bipolar Transistor.
- \* MIM CAPACITOR (mimcap\_1p0).
- \* N+POLY w/o Silicide, N+POLY w/i Silicide, P+POLY w/o Silicide, P+POLY w/i Silicide, N+DIFF w/o Silicide, N+DIFF w/i Silicide, P+DIFF w/o Silicide, P+DIFF w/i Silicide.

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### **(1) Certified SILVACO EDA tool versions for this PDK version:**

Gateway: 2.12.10.R  
 SmartSpice: 3.16.12.R  
 SmartView: 2.24.14.R  
 Expert: 4.8.8.R  
 Guardian: 4.8. 5.R  
 Hipex: 3.4.7.R

### **(2) Important procedures for PDK version migration:**

N/A.

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

Initial release of the partial PDK (symbols and pcells).

## **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