

Datasheet

PDKs for IHP



NI AWR Design Environment supports several IHP process design kits (PDKs) for use by mutual customers. These PDKs offer:

- Symbols and schematics (Cadence compatible)
- Scalable models with RF accuracy, including:
 - Fully-scalable layout PCells
 - Basic digital standard cell libraries
- Monte Carlo statistical/mismatch simulation
- Advanced layout utilities
- Accurate EM simulation featuring:
 - Pre-defined substrate definitions and stackups
 - Pre-configured extraction/full-wave modeling for RLCK

Current PDKs include:

Process	Description
SG25H4	0.25 μm BiCMOS with SiGe npn-HBTs with $f_T/f_{\text{max}} = 200/220$ GHz (formerly SG25H1)
SG25H3/H3P	Similar to SG25H4 but with SiGe npn-HBTs with $f_T/f_{\text{max}} = 110/180$ GHz, higher breakdown voltages up to 7 V, and optional pnp-HBTs with $f_T/f_{\text{max}} = 90/120$ GHz
SG13S	High-performance 0.13 μm BiCMOS with npn-HBTs with $f_T/f_{\text{max}} = 250/340$ GHz, 3.3 V I/O CMOS, and 1.2 V logic CMOS
SG13G2	Similar to SG13S but with much higher bipolar performance of $f_T/f_{\text{max}} = 300/500$ GHz

IHP PDKs work seamlessly with the latest version of NI AWR Design Environment. Contact your local NI AWR software representative for more information or visit IHP site (ihp-microelectronics.com) for additional details on these PDKs.

“I have been using the IHP SG13 process in NI AWR Design Environment for multiple tapeouts with first-pass success. I’m very satisfied with the quality of the PDK and the results for my designs.”

Leigh Milner, Macquarie University

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