

MIXED-SIGNAL/RF SUBCOMMITTEE MINUTES AMS/RF PROCESS CHECKLIST WORKING GROUP

Date: January 30, 2007
Location: Nangate Inc., Menlo Park, CA USA
Time: 10:00AM (PST)

Attendees:

- Thomas Moerth – Austriamicrosystems
- David Cheksis – Jazz
- Philippe Jansen – IMEC
- Owen Li – Nvion
- Chelsea Boone – FSA
- David Schwan – Sirenta
- Ken Brock – Nangate

Summary:

- This first meeting had a good mix of members representing the fabless, foundry, and EDA perspectives on the Process Checklist to keep it informative and relevant for the target audience and beneficial to those who produce them.

Discussion Items:

- Propriety of Process Checklist – It was decided that the Process Checklist will have no NDA required being public document for print and web. We have previously discussed including the content as a future part of the FSA Hard IP Quality Risk Assessment Tool.
- Target audience – The checklist is targeted for the design manager, product manager, business unit manager or foundry manager of an AMS/RF fabless or fab-lite (or IDM considering going fab-lite) company who is investigating AMS/RF processes for manufacturing a design or family of designs.
- Process Types – We will add the number of devices as a figure of merit, change Bipolar to NPN and PNP and develop some form of indicator between #instances and parameterized cells to describe number of devices.
- Process Attributes – We will add multiple voltage options (core/I/O), info on dielectric and metal material and well options (e.g. triple well).
- Mixed-Signal – We will add digital library section that includes number of core, I/O, memory (RAM, ROM, etc.) and interface circuits, # tracks, ring oscillator performance, and gate density (gates/mm²).
- Process maturity – Dave from Jazz to develop nomenclature and definitions for development pre-production and production designations to be included in the user's guide to the process checklist.
- Turn Around Time – After much discussion we agreed to include number of layers, standard cycle times (weeks), and MPW availability.
- Device Attributes – We will include passive device attributes for resistors (material, sheet rho, temperature coefficient), capacitors, inductors, varactors and diodes as was done for active devices on page 3.

Next Meeting for AMS/RF Process Checklist Working Group:

- March 6, 2007 at 10:00AM (PST) at Nangate