

Minutes of CMC Meeting Phone Meeting, May 18, 2005

Companies/Universities Represented:

AMD, IBM, Mentor Graphics, Philips, Renesis, ST Microelectronics, Synopsis, UC Berkeley.

Jane (UC Berkeley) reported that the items with a status of "A" in their presentation (attached) would be completed for a beta release at the end of June. This release will be tested by CMC members and when approved released as an official release. The following additional items were discussed for inclusion in this release.

Change the flicker noise equation as suggested in the IBM Noise proposal (attached). UC Berkeley suggested a slightly different equation which did not add the parameter w_{0flk} . We decided to use the IBM proposal because it was already implemented in some commercial simulators. Will be added to beta.

Add and overall scaling parameter for fitting the thermal noise. This will be added. Will be added to beta.

Add two more noise sources to the body so that body contacted thermal noise is correctly calculated. Will be added to beta.

Add an instance parameter $delvto$ to adjust the v_t on an instance by instance basis. Will be added to beta.

Install the BSIM4 GIDL equations into BSIMSOI. This will be done for the June beta. AMD has some TCAD results that suggest additional change are needed for GIDL but these will require too much work to include in this beta.

Add a parameter to model the additional gate area introduced by a body contact. Will be added to beta.

Model the effect of portion of the poly in a body contact which as doping opposite the active FET gate. This was deemed to complicated to complete for the beta release.

Add an instance parameter for number of fingers. Will be added to beta.

The problem with N_{bc} reported by AMD will be fixed as part of the bug fixes.

IBM, and ST Microelectronics presented additional requests and AMD has additional requests on the UC Berkeley list. These requests will be discussed at the June CMC face-to-face meeting. The chairman encouraged companies with items they want worked on to bring additional information and data to the June meeting.

This meeting was conducted in accordance with the GEIA Legal Guides and GEIA Manual of Organization and Procedure.