

IBIS Interconnect Decision Time

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IBIS Interconnect
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Overview

- Ports is Terminals
- EMD
- IBIS Component
- IBIS Component Decisions
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- Conclusion

Ports is Terminals

- We need to agree that we are now going to use the words “Terminal” (pl. “Terminals”) to describe the terminal nodes of an IBIS-ISS subckt call and S element Touchstone file.

EMD

- We have all agreed that the current EMD draft accurately describes the external and internal Terminals of an EMD.
- We have all agreed that in the current EMD draft the Model Interconnect Protocol (MIP - Interconnect Branches) accurately describes the terminal nodes of any IBIS-ISS subckt call and S element Touchstone file required by IC Vendors and Users, and that can be used by EDA Vendors to generate required simulations.
- Decisions:
 - In coupled (crosstalk) interconnect models should we support:
 - All connections treated as both victim and aggressor.
 - Only specific connections can be treated as victim.

IBIS Component

- We all agree that there are Pin, Die-Pad and Buffer Terminals
- We all agree that there needs to be a mechanism to define additional Supply Die-Pads

IBIS Component - Decisions

- Will we enhance IBIS to allow two pins be connected to a single Die-Pad?
- Will we enhance IBIS to allow stacked memory die?
- Will we enhance IBIS to allow >1 die chips (without treating them as one die chip)?
- Will we enhance IBIS to define a bare die IBIS Component?
 - Do we allow a new keyword [Die Pad] to replace [Pin]?
 - Do we define a “Bare Die” Component as follows?
 - Same number of die pads as pins.
 - The EDA tools shall treat each corresponding pin and die pad terminals as if there was a 0.0 Ohm resistor between them.

IBIS Component - Decisions

- Which of the following methods will we use to describe IBIS Component Packages?
 - BIRD 125
 - MIP containing Interconnect Branches similar to that described in EMD
- Which of the following methods will we use to describe IBIS Component On-Die Interconnect?
 - BIRD 145
 - MIP containing Interconnect Branches similar to that described in EMD
- Will we allow the following Precedence for Package and On-Die Interconnect models?
 - Pin
 - Model
 - Component

IBIS Component - Decisions

- In coupled (crosstalk) interconnect models should we support:
 - All connections treated as both victim and aggressor.
 - Only specific connections can be treated as victim.

Conclusion

- Before we can proceed, we need to Decide.
- How are we going to make these Decisions.