

Date – 15/June/2012

Minutes of the IEEE-1149.1 Working Group Friday meeting

Attendees:

Adam Ley
Bill Bruce
Hue Wallace
Brian Turmelle
Carl Barnhart
Craig Stephan
CJ Clark
Ken Parker
Roland Latvala
Dharma Konda
Dave Dubberke
Heiko Ehrenberg
John Braden
Peter Elias

Meeting called to order at 8:30 am MST (Arizona)

Current Draft: P1149 1 Draft 20120604.pdf

The agenda for the meeting today:

- 1) Revised MODE Tables
- 2) Nested excludable segments.

Some notes from today's call:

Revised Mode Tables

Carl has reworked the existing mode tables by identifying 6 unique mode signals and using them consistently across all the mode tables. This is a nice improvement upon the 2001 version of the tables.

It was discussed the TMP persistence on should block inputs when those inputs could otherwise affect on chip tests.

Mode6 is the highz signal decode for global high impedance signal.

Carl has added the precedence to the tables from 1 thru 4, with 1 being the highest priority, for Instructions or (conditions) that affect the mode signal states.

We had some discussion whether or not the INIT_XXX and CLAMP_XXX instructions should assert the mode signal. It was generally felt that they should all assert mode = 1, so Carl will make those edits in the tables where needed.

Nested excludable segments

We continued this past week's reflector discussions of hierarchical segments and how best to reset them.

Carl has proposed two new reset keywords: DOMPOR and HIERRESET:

- The DOMPOR would reset the nested excludable segment when its domain power is applied
- The HIERRESET would use the parent SEGSEL flop to force a reset of the nested segments while the parent is excluded. The advantage of this method is that it ensures all nested segments are brought online in their collapsed state.

CJ thought there are applications where one doesn't want to collapse the nested segments (ie: core1, core2 testing), and it would be more desirable to simply preserve the existing state of the nested segments to minimize the number of scans required once the segments are brought back online. For this the DOMPOR would be more desirable than HIERRESET.

Dharma mentioned that POR, TRST, and System PCI Reset are the most commonly used.

John felt we as engineers may be over thinking the problem and adding extra complexity.

Ken wanted to ensure that the boundary register is not affected by excluded segments. Carl confirmed the boundary register and init-data register do not allow nesting so no issue for them. The nesting only applies to design specific TDRs.

Carl pointed out that software resets are allowed, but there should be recommendations that hardware also powers up segments into their collapsed states.

There were no objections to Carl's proposal of these two new reset keywords.

Meeting adjourned: 10:03am MST

Action Items:

- Continue discussions over the reflector this week.
- CJ mentioned a motion should be made this coming Tues, to not allow any new changes to the draft, so that we can close out on the existing items such as the CLAMP_RELEASE question and BSDL REGISTER_CONSTRAINTS shift reduce conflicts.

Next Friday Meeting:

- Next Friday meeting is on 22-June-12

