Date – 03/08/2011

Attendees: CJ Clark, Bill Tuthill, Dave Dubberke, Carl Barnhart, Wim Driessen, Brian Turmelle, Craig Stephan, Roland Latvala, Adam Ley, Adam Cron, Carol Pyron, Heiko Ehrenberg, Francisco Russi, Bill Eklow, John Braden, Ted Cleggett,

Missing with pre-excuse Ken Parker,

Missing: Lee Whetsel, Neil Jacobson, Ted Eaton, Mike Richetti,

Agenda:

1) Patent slides
2) Further review of Clause 6, 7 and 8

Meeting Called to order at 11:00 am EST

Minutes:

Review Patent Slide
Carl will post new version of draft to website after today’s meeting

Continuation of Clause 6 review
Figure 6-9 State diagram for Persistence Controller
Rules mimic for Tap Controller.
Initialization mimics Tap Controller.

Motion to adopt changes made to date to Clause 6 into draft without prejudice to future discussion or future changes.
Adam C seconds
No one opposed
Motion passes

Clause 7 discussion
Very few changes made to this Clause
7.2.1b rule moved to 8.1.1
7.2.1b was a rule about how the test logic responds to instructions. Better suited for section 8.1.1
Moved text to describe the rule to 8.1.1
Clarified the text. “test logic responses to” rather than “actions resulting from”
Leaving b) with a pointer to 8.1.1 to avoid renumbering rules.
Francisco: add comment or rule regarding the state of TCK
Carl: descriptive text made it clear that the use of the word actions was different than in 6.2, because of execution of internal self test.
Francisco: action in state-machine. And action in instruction register.
Carl: took out the word action. Now Test Logic Responses. In regard to
instruction register. The word “actions” was being used differently and modified rule to
make it clear
Adam L: Seems like the original rule and the new rule stands in conflict with the
test mode persistence controller.
Carl: controller isn’t an instruction. So it is not subject to this rule.
Adam L: controller is part of test logic.
Carl: test logic response is to set the state of the controller.
CJ: consider note or language that exempts clamp hold
Adam L: seems like an explanatory note is in order.

Motion to adopt changes made to date to Clause 7 into draft without prejudice to future discussion or future changes.
Francisco seconds
No one opposed
Motion passes

Clause 8 discussion
8.1
Only change was the rule that was moved down to 8.1.1
Permission g modified
Clarification that Rule e and Permission g ensures that the operation of the
test logic is determined only by the current instruction plus data currently in the selected
test data registers.
Adam L: suggests adding “controller states” to clarification.
Paragraph is slightly modified from descriptive text from 7.2.1 rule
b/permission f
Carl had distributed this change in email prior but this was not updated on
website.
8.2
Public includes standard instructions
Private instructions are device specific
Recommendation to support IDCODE/CLAMP/ICRESET/HIGHZ
Recommendation h ) Ken wants merged into permission f)
CJ: rules introduce “products” and not “IC” or “component”
Carol: h needs to be reworded
Carl: if we remove if and add ClampHold and ClampRelease to f
Carol: agrees and remove h
CJ: text for h) might make better note
Carl: move to description.
CJ: note next to permission might highlight why this is done

Carl feels that 8.2 needs some work and will not move to accept changes now
Carl makes a motion to adopt changes in 8.1

CJ has some questions on 8.1.1e
   Does not allow family of instructions

Carl: nothing in the rules to prevent a family
Adam C: instead of terminating talk about the new instruction activating?
Carl: intent is that when an instruction is loaded there is nothing going on
that is not defined as part of that instruction.
   CJ: likes Adam’s suggestion
   Carl: Changes rule e) to add “unless the new instruction supports the same
response”

Francisco: would use term active instruction rather than terminate
CJ: word of response is leading people to think of the output of test.
   Adam C: suggests “override”.
   CJ: hung up on Response
   Roland: hung up on terminate
   Carl: What do you do with a process that is kicked off by an instruction
when that instruction goes away??
   CJ: thinks that the addition gets us closer

This topic will be taken off line with an email discussion.

Meeting adjourned: 12:06 pm EST.

Next Meeting: 3/15/2011 11:00 am EST

Motions Made and Seconded

1. Motion to adopt changes made to date to Clause 6 into draft without
   prejudice to future discussion or future changes.
   a. Motion Passed Unopposed

2. Motion to adopt changes made to date to Clause 7 into draft without
   prejudice to future discussion or future changes.
   a. Motion Passed Unopposed

NOTES:

IEEE 1149.1- 2011 Boundary Scan Working Group Minutes

Meeting time: Tuesdays 11:00 AM (EST)  (Recurring)

AUDIO INFORMATION
- Computer Audio (Recommended)
To use computer audio, you need speakers and microphone, or a headset.
- Telephone conferencing
Use the information below to connect:
  Toll: +1 (218) 862-1526
  Participant code: 11491

FIRST-TIME USERS
To save time before the meeting, check your system to make sure it is ready to use Office Live Meeting.

TROUBLESHOOTING
Unable to join the meeting? Follow these steps:
1. Copy this address and paste it into your web browser:
   https://www.livemeeting.com/cc/intellitech/join
2. Copy and paste the required information:
   Meeting ID: F9R6S6
   Entry Code: k/d6<@M6j
   Location: https://www.livemeeting.com/cc/intellitech
If you still cannot enter the meeting, contact support.

NOTICE
Microsoft Office Live Meeting can be used to record meetings. By participating in this meeting, you agree that your communications may be monitored or recorded at any time during the meeting.

Current Issues listed and who will champion that issue.
1. Observe only. – Ken and Carl
2. Directionality linkage. - CJ
3. Power Pins. - Heiko
4. Pairing power pins with functional I/O - CJ
5. Sample / Capture. – Carol (Freescale) & Roland
6. TRST included in PCB level diagram. – Adam L.
7. Slow to Fall/Rise signaling issue – CJ
8. “No Connect” – Ken and Francisco.
9. Device ID – Still needs work
10. Low-Voltage self observe shorts coverage problem – JJ & Intel
11. Init – Carol & Carl

Action Items:
- CJ will post 1149.1 draft on website with line numbers to make it easier to refer to items in discussion
• Comment #10 CJ will take action to look at possibilities to add to the 1149.1WG website a document which shows which standards are based on 1149.1
• Comment #8 CJ will make changes to draft for observe only
• Comment #7 CJ will get in touch with Doug to get input regarding Comments
• Comment #5 CJ will Add a figure and little text to address TRST use with interconnection of components
• Comment #4 Adam L to add comment about TRST. Update figure 6.8
• Comment #3 Adam L will update language for any proposed change for this section.