Date - 11/13/2012

Attendees: CJ Clark, Adam Cron, Bill Bruce, Bill Eklow, Bill Tuthill, Brian Turmelle, Carl Barnhart, Carol Pyron, Craig Stephan, Dave Dubberke, Dharma Konda, Francisco Russi, Hugh Wallace, John Braden, John Seibold, Josh Ferry, Ken Parker, Peter Elias, Wim Driessen,

Missing with pre-excuse: Adam Ley,

Missing: Lee Whetsel, Matthias Kamm, Mike Richetti, Neil Jacobson, Ted Cleggett, Brian Erickson, Scott Wilkinson, Jason Chodora, Roger Sowada, Kent NG, Sam McMillan, Sankaran Menon, Ted Eaton, Heiko Ehrenberg, Jeff Halnon, Rich Cornejo, Roland Latvala,

Agenda:

- 1) Patent Slides and Rules of Etiquette
- 2) Use LiveMeeting "Raised Hand" to be recognized and take the floor
- 3) Recognition Awards
- 4) Ballot comments with 'Refer to WG'.
 - a. Broken CH-RESET/Global reset (ballot comment due to input from Jason Doege)
 - b. Other Refer to WG status comments.
- 5) New Business

Meeting Called to order at 10:30 am EST

Minutes:

Review Patent Slide – Slide Presented to the Group.

Solicited input from anybody who is aware of patents that might read on our standard.

No Response

Review of Working Group Meeting Guidelines

No Objections

Recognition awards

Kathryn Bennett for her services as the program manager and liaison to IEEE 1149.1

Carol Pyron for service as Vice – Chair and substantial technical contribution Carl Barnhart for devoted work as editor and his substantial technical contribution Bill Tuthill service as Secretary

Ken Parker for his career contribution to the standard and record over 200 ballot comments.

Chair also recognizes the work of all that have worked on the standard.

Ballot Comments with 'Refer to WG'

#154104 - CH-RESET/Global Reset

How do we deal with the reset that is going to be global?

Jason Doege's comment was that one test data register could have the ability to reset that register but keep the IO using ClampHold.

Might need to do a fair amount of setup for this.

How do you do that if all the resets are block? If segment select or 1500 architecture gets corrupt than you would have to go through a reset/repower that would force you to go through an initialization to get back to open your segment select. Jason thinks we need something more granular to be able to control a single reset.

Only one CH-reset signal in the entire chip.

CJ suggests a local reset. Put a bit in the scan chain on a test data register that controls other resets on the chip. Would require a POR reset connected to it. But it itself would be driving bits on inputs of other flops. Can already do this today but no way to describe it in BSDL

Another method would be to assign ResetI and ResetO

Carl – would prefer the local reset idea. As a designer he would probably use a flop in the chain.

If you have the local reset with field reference. What resets the field?

Does the flop that does the reset pulse1 or pulse0?

Should it be a static level?

Carl – if you issue a TRST forces a tap reset and ch-reset. Does it force local reset?

CJ – would leave that to the designer because they can tag the register.

Carl –when you reset the field reference flop do you want it to reset the resets that it controls?

CJ- yes.

Carl – or would you want TRST to not reset everything

CJ – would not use TAPRESET as the method to reset it as it wouldn't be different than disturbing TAPRESET to everything.

Would use a POR reset.

CJ - p1687 there is a reset but no rules on how to implement.

Needs some rules.

Carl- would be for design specific TDR

CJ - can't deliver standard to community without the resets broken out.

Carol – do have local resets. BIST engines are locally resettable.

CJ – what is your definition of a local reset

Carol – register that does reset across multiple registers that can be scanned.

CJ – do you do it synchronously with the clock?

Carol – they are synchronous.

CJ – this is more abstract

Carol up to the designer a lot of times as how it is mentioned

John B – local reset would be valuable.

Dharma – TRST is only confined to BS related logic. Might not want TRSET to reset mission logic

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Carl – If we have to scan the same register to set the reset bit, why can't I just can the register to set the reset

Always can do a local reset if we can scan the reset values in.

CJ – scan chain has to be expanded to do it. Chain could be long.

A lot of shifting to do to get to each register.

CJ – would like to right up something to support local resets. Would just be calling out the field in the BNF.

Carol – a reset bit in one TDR can be referenced to reset bits in other TDR?

CJ – no reason to restrict it.

Ken – Point of Order.

If in the process of all these comments that we are looking at, what is the level of magnitude of a comment that we would say it was too big of a change is it deemed too much of a change to the standard that was originally balloted on.?

CJ – not sure it has to do with the size of the change, but with the brokenness.

Carl – is the question "at what point do we have to re-ballot"

CJ – we have to re-ballot anyway

Ken – Ballot recirculation is a different thing.

CJ – you could change your vote on the incremental material that is provided

Hugh – definition of broken - the standard the way it is no one could implement it.

If this is a convince thing than we should be doing it

Carl – it is broken by your definition. PDL tools wouldn't know what the state of the registers are. Can't document the resets.

Hugh – after we fix it do we go back to the ballots to accept it

CJ – goes to ballot recirculation. And can vote no on the change.

Ken – question is more that led to believe that if you vote to approve you could not vote to no during recirculation.

CJ – does this affect your position?

Ken – brought the question up as a general question.

Sees things being thrown out on a conversation at ITC. And it hasn't be fleshed out. Could be something highly disruptive to the rest of the standard.

CJ – this is a ballot comment and not something from ITC

Hugh – the solution may be from ITC.

Ken – would be in favor in studying it further

Carl – has to be fleshed out. Not in final form.

#151350. Next Refer to WG.

Comment from Colin. Compliance Enable pin.

CJ – why is this a "Refer to WG"?

Carl – not sure what the issue is.

CJ – this is 2001 text.

Carl – added comment that this is 2001 text. Note to the working group and no one responded.

CJ – going to mark it as a no change.

CJ – anyone on the call feel we haven't explained Compliance Enable?

Hugh – does anything we added change this? That would be the question to ask

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Carl – no impact here.

#152164 - Refer to WG

Carl – Just wanted people to confirm that change to rule d is acceptable.

CJ – ok. We can change this to done.

#152167 - Refer to WG.

Carl – you can block TRST with a TMP controller. Not sure this statement means anything. Always have TRST available.

CJ – can design a chip without TRST. For a mechanism for a 4 pin device to get out of the TMP controller.

CJ – statement deleted. Can live with that.

Carol – would make a motion to flesh out CH-Reset with what needs to be added into the document to have a more complete proposal.

Ken seconds.

Yes

Bill E. Carl B. Dave d. Hugh W. Bill T. Carol P. Dharma K. Josh F. Brian T. Craig S. Francisco R. Ken P.

Abstain

Peter E.

Motion passes

12 Yes

0 No

1 Abstain

Meeting adjourned: 12:00pm EST.

Summary of Motions Voted on

1 Motions voted on

- Motion to flesh out CH-Reset with what needs to be added into the document to have a more complete proposal.
 - o Motion passes 12/0/1

Next Meeting: 11/20/2012 10:30 AM EST

NOTES:

1149.1 working group website - http://grouper.ieee.org/groups/1149/1/

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