

Date – 11/01/2011

Attendees: CJ Clark, Bill Tuthill, Brian Turmelle, Adam Cron, John Seibold, Ken Parker, Craig Stephan, Dave Dubberke, Sankaran Menon, Heiko Ehrenberg, Josh Ferry, Francisco Russi, Jeff Halnon, Dharma Konda, Carol Pyron, Ted Eaton, Bill Eklow, Wim Driessen, Roger Sowada, Carl Barnhart,

Missing with pre-excuse Adam Ley, Roland Latvala,

Missing: Lee Whetsel, Neil Jacobson, Mike Richetti, Ted Cleggett, Matthias Kamm , Peter Elias, Brian Erickson, Bill Bruce, John Braden,

Agenda:

- Review changes in Clause 11
- 1) Patent Slides and Rules of Etiquette
- 2) *Review of Carl's draft changes Clause 11 and BSDL*
Motion to accept changes in Clause 11
Subject to further refinement
- 3) Review of Reset_val and CHRESET TAPRESET
- 4) PDL Level 1
- 5) mixed R_F/R_A
- 6) Homework assignments

Meeting Called to order at 10:40am EST (new starting time)

Minutes:

Review Patent Slide – Reminder sent out over email.

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

No responses.

Review of Working Group Meeting Guidelines

Review of Clause 11

Register Specifications

Added statement allowing control only cell

Changed description of “length of boundary scan register” to “length of boundary scan register segment assembled”

Rule k added note saying when it does not apply to Boundary Scan segment that is powered down (excluded) the segment has no effect on the flow of signals (no control of its IO)

Carol: if registered shared between device ID and boundary Scan register does that segment need to be always on?

Carl: Exempting to restore data if you have a excludable segment.

Carol: how does it work with ClampHold.

Carl: it ignores ClampHold when it is excluded.

interfere
Carol: if we did a ClampHold and then do an ID instruction would that

Carl: that would be non compliant

Register Operation

Took into account variable length of boundary scan register

segment
Rule f all cells associated with a specific port shall appear within a single

port
Carol: doesn't feel this is realistic. Should talk about domain rather than

Carl: change port to token port ID

Carol: is port a single pin

Carl: port is an object in the port list

Carol: ok.. Can agree with that.

Carl: not talking about broad things like a bus. These are individual pins

segment
Francisco: a full segment rule. Hard to have a control cell outside the

that are within segments
Ken: can't have a control cell in an “always on” domain fanning to ports

CJ: right. Need the control cells in the segment

Sankaran: agrees that you don't need to have an IO outside the segment.

CJ: Rule F will keep people in line to design with test in mind

Rule g new name- segment selector used

Rule h new name – segment selector used

refinements as needed
Heiko - Motion to accept changes in clause 11 as written subject to further
Vote 1

Brian Seconded

No Discussion

Vote.

Bill T. YES

Craig YES

Heiko YES

Ken Yes

Brian YES

Dave YES

Jeff YES

Roger Yes

Carl YES

Dharma YES

John S. Yes

Carol YES

Francisco YES

Josh Yes

14 Yes

0 No

B8.14 Boundary Scan register description

Rewritten to account for segments. Use segment selector and domain control cells to make that happen.

Boundary Length

Boundary Register

Boundary register segment

Carol: if you have a single segment that you want to include do you have segment the entire boundary register

Carl: you cannot use both boundary register and boundary segment in the BSDL.

If you use boundary segment you need to also use register assembly.

CJ: do you need a semantic check to look for only 1 segment. Should we allow only 1 segment?

Carl: there is nothing to prevent that.

Ken: the implication of segment is that it is switchable.

Carl: No, it can be fixed or switchable depending on how it is implemented.

CJ: you can do a register assembly of 4 segments and not care about power. If you want to make them switchable then you can add the mux and power control.

Carl: a segment is a defined part of a register. If you create a register field statement and the field is not the same as the register, than that name is the name of the segment. That is how a segment is getting defined.

A boundary segment looks just a boundary register segment.

Register Assembly

Rule C - bit 0 is closest to TDO

Carol: in a BSDL and boundary register. You can randomize?

Carl: yes still the list

Carol: can you do that in the boundary segment list?

Carl: yes

Carol:

Rule D: the register assembly list must be

Rule e: any register segment between SEGSEL and SEGMUX segments shall be executable

CJ: should be consistent that the Register Assembly should determine the length.

Heiko: would like to leave the

Carl: the documented length is the minimum length of the boundary register with the switchable segments turned off

Ken: in the past the boundary length was the maximum

Carol: not a problem to put it in there. Have multiple iterations with the tools.

CJ: if you boundary register than you can use the boundary length register. If you are using segments

Josh: likes to have the double check

CJ: find little value (extra work) to go off and calculate what that boundary length is.

Carl: several people have said they do the work and would like that information.

Heiko: would like to see it be the maximum length.

Carl: even if that isn't what you get when you power up the board.

CJ: needs an example for everyone to see.

Ken and Carl both like the double check of having the maximum length stated in the BSDL

Carl: more comfortable having the length in the BSDL

Francisco: any problems supporting both lengths max and min

Carl: no problems syntactically.

Carol: could be consistent with current usage, show the maximum, and secondary field showing the minimum

Carl: when you power up all the lengths are excluded so the boundary register length should reflect the segments being excluded. The length is the length at power up

CJ: the register assembly tells the tools what are there. And wouldn't look at the length.. it would figure it out based on the register assembly and which bits should be collapsed on reset.

Do we need the double checking?

What is the length of the register if we require it for register_assembly

Jeff Halnon: any time we have segment register the idea of a single length is not appropriate. Valid reasons why you want to know the max and min. we should remove the idea of boundary length , if we have register assembly, we should have just max length, min length. So you can see the two ends.

CJ: Would be adding 2 attributes to the register_assembly

Ken: you could also take the boundary length statement and change the integer at the end and add a (min,max)

Flat register would use old syntax

Segment would show min and max

Carl: use the deferred character in the boundaryRegister

CJ: leave the boundary register in register access section.

Changing the parsing of BSDL (and BSDL Generation) will add extra burden to the tool vendors

• **Meeting adjourned: 12:00 EST.**

Next Meeting: 11/08/2011 11:00 AM EST

1 Motions Made

Motion made by Carl to accept changes for clause 9 subject to further refinement.

Motion passed

HomeWork Status

John has passed his examples in to the working group. CJ is running them through the parser.

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Carol – is still working on examples
Heiko is still working on examples.
CJ is still working on port assignments

Homework assignments.

Heiko and Carol's assignments are outstanding and will be done for next week's meeting

CJ will have examples of port assignments

Bill E – work on more concrete example and definition of the ESSID register

NOTES:

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

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[ppppp11491p*pp03820#](tel:ppppp11491p*pp03820#)

JOIN the meeting as GUEST – will have to ask to present

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

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