

**Date – 09/06/2011**

**Attendees:** CJ Clark, Bill Tuthill, Brian Turmelle, Adam Cron, Adam Ley, Carl Barnhart, Dharma Konda, John Seibold, Ken Parker, Dave Dubberke, Heiko Ehrenberg, Josh Ferry, Bill Eklow, Francisco Russi, John Braden,

**Missing with pre-excuse** Carol Pyron,

**Missing:** Lee Whetsel, Neil Jacobson, Mike Richetti, Ted Cleggett, Matthias Kamm , Roland Latvala, Craig Stephan, Roger Sowada, Ted Eaton, Wim Driessen, Peter Elias,

**Agenda:**

1. **11:00** Patent Slides and Rules of Etiquette
2. Carl's proposal for cell types and cell value (see below)
  - Allows extensions to R\_A and R\_F without re-defining R\_A or R\_F in its entirety
  - Should CAPUPD be a standard cell?
    1. There may be no other test method on the 1149.1 TDRs, capturing the output of the update may be the only way to get visibility. Describing it would help educate.
3. *B.8.14.3.8 – Proposal for listing both <input spec> and <disable spec> for all bidirectionals.*
4. *On Friday Carl volunteered to write up Ken's proposal. Carl did not write this up (see email). For this meeting, I do not see something concrete to vote on here. Move to next meeting?*
5. ECID
6. PDL Level 1
7. mixed R\_F/R\_A
8. Homework assignments

**Meeting Called to order at 11:07 am EST**

**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

Discussion on Carl's proposal for Cell Types and Cell Values

Heiko makes motion to accept Carl's proposal for cell types and cell value

Brian Seconds

Discussion

Carl: Will allow extensions for Register\_Attributes and Register\_Fields without redefining the entire Register\_Field or Register\_Attributes. There is no extension for reset keywords because he feels they are covered already

Ken: Does not have an option either way.

CJ: thinks of it as a Safety to have in case we didn't think of everything.

CJ calls a vote as discussion was very light

Motion passes

Yes (Bill T., Brian T., Carl B. , Dave D., Dharma K., Heiko E., John S.)

No (Adam L.)

Abstain (Adam C., Josh F., Ken P)

\*note Bill E., John B., and Francisco R. joined the meeting after the vote was cast.

Josh Ferry noted he was removed from the reflector

CJ has added Josh back to the reflector. Josh noted the flood of emails

B.8.14.3.8

Ken would like to move the vote on his proposal due to the lack of review.

Carl was able to write up the proposal but had some questions

Is <input spec > going to be restricted to only types of IN or both IN and OUT.

Ken: Shares the question. Still have as a group a question as to what we mean about receiving capabilities of a pin. What do we mean with an input spec.

Carl: right does it apply to in or in/out

Adding Open1/Open0 on a BiDIR covers everything

CJ: real value of input spec is on the Input.

BiDirs are not typically not tied off.

Trying to get better diagnostics for pins without self monitoring capabilities

BiDirs have Self Monitoring

BiDir has minimal value. Only have to deal with it when the Output is Z

Allowing Open1 and Open0 this will allow it to sense if there is a 1 or a 0

Try to deprecate the Z on the BiDir.

Carl: easier to write the spec on types of IN

CJ: thinks we have everything captured and is concerned that we are going to put a lot of work into the BSDL and only brings very minimal value

Ken: should assume every possible case and make sure it is covered. Saying someone won't do it isn't a guarantee that they won't

CJ: we are writing a spec and not a tool. Don't want to put into the Standard language to cover all cases (even the crazy ones) Want to guide with the best practices and not make it easy for someone to do "the wrong thing"

ECID

Bill E:

Not a big deal but 3-5 years it will  
Should do something to facilitate this when it comes around  
Should we have an ECID instruction in PDL?  
Proposal to make ECID\_READ an instruction to hold us over.  
Should handle of the cases  
Instruction will allow us to be ready in 3-5 years when this comes

CJ:

Having the instruction is Known. Do we add an ECID clause?

Bill E: can write up something

CJ: poles the group to see if there is anyone unfamiliar with the idea.

Bill E: more than just an ID. Also a chip ID. Shows wafer and die location information.

CJ: a unique number that tells a lot of things. Tied to database

Bill E: when we get into Die Stacking it will be important to track the dies in the stack.

CJ: no objection. Comes down to where is the text in the clause

Carl: would recommend a motion for adoption

Francisco: maybe a concept of multiple device id registers. Should be able to do the ECID\_READ instruction. Have a compliance enable to select the ECID.

CJ: wording on the clause for ECID will be very similar to device ID

Possible to share registers of the Device ID for the ECID

Francisco : brings up a topic for the 32 bit device ID register as there may not be enough bits for the manufactures

CJ: hold that for later. Not predicting that will be in this standard

Bill E: need to differentiate from a Device ID. Would be important for someone to not confuse between the two.

Carl: all you are asking for a standardized instruction that can be recognized by software

Bill E: Yes.

CJ: just a copy and modify of Device ID

Carl: actually User Code

CJ: yes.

CJ: should add name for the ECID\_READ register

CJ: do we need to go through a headcount vote to proceed. Does anyone object to Carl writing this up

Adam C: are we going to dictate the method to get the ECID?

CJ: just going to leave that open. Just saying that when we Scan this TDR we would expect the value to be there. What you do to get the value in the TDR is up the designer.

Carl: instruction is easy. Getting into the TDR is difficult

Bill E: Most important thing now is to get the Instruction in Place. So people have a standard notion of a register and able to read the data out

CJ: should be consistent.

Carl: could create ECID\_READ reserved proc name in PDL. To allow the test software to recognize it.

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CJ: had suggested it in a previous conversation

Ken: DO IT!

Francisco: how do we spec the capture value of the register

Carl: we don't. Just reserve the name.

The Group was polled to see if there were any objections to having Carl add the ECID text to the draft.

There were no objections so Carl will write up a clause on ECID that we will be able to read and vote on

Notes for ITC-2011 –

CJ has submitted an updated poster session

Tuesday meeting 9/20 will be canceled during ITC

Informational meeting for public on 9/20 in the AM

- **Meeting adjourned: 12:02 EST.**

**Next Meeting:** 9/13/2011 11:00 AM EST

1 Motion Made

Motion to accept Carl's proposal for cell types and cell value

Motion passed with 7 yes, 1 No, and 3 Abstain

HomeWork Status

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

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

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

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