

**Date – 05/19/2014**

**Attendees:** CJ Clark, Adam Ley, Bill Tuthill, Brian Turmelle, Craig Stephan, Dharma Konda, Dwayne Burek, Frans de Jong, Gobinathan Athimolom, Gurgen Harutyunyan, Ismed Hartanto, Jon Colburn, Josh Ferry, Mike Ricchetti, Philippe Lebourg, Tapan J Chakraborty, Teresa McLaurin, Zahi Abuhanmdeh

**Absent with Excuse :** Bob Gottlieb, Steve Sunter,  
**Not Present for  $\frac{3}{4}$  of meeting:**

**Missing:** Bill Huott, Carol Pyron, Jim Wilson, Kent Ng, Kevin Gorman, Saman Adham, Tom Waayers, Heiko Ehrenburg, Dave Armstrong, Marc Hutner, Roger Sowada,

**Agenda:**

- 1) Patent Slide
- 2) Clause 4 changes/tweaks to Fran's state machine
  - a. Addition of disable\_1149\_10 via TAP
  - b. Motion to approve?
- 3) Clause 6 changes/tweaks there. Updated figures again to hopefully make more clear.
- 4) Clause 7 BSDL changes. Adding more material here to make clear.
- 5) New Business

**Meeting Called to order at 11:05 am EDT**

**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

**Section 4.1**

Updated Frans's state machine

Updated states to match draft text

Updated description

Gave exit mechanism as well as enable mechanism for 1149.10 recognized

Frans – would remove bubble for Disable\_1149\_10\_recognized. Not a state

The middle bubbles – are they states or not? Is there any preparation that needs to happen? If not than it is a fall through – a transition from Mission Mode state to PEDDA HSJTAG state.

CJ – There are only really 2 states. Mission mode or PEDDA enabled.

Frans – if the bubbles mean nothing more than pass thru than we should make them arcs.

CJ – we could leave them and define what they mean?

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Frans – Would have to remove blue bubbles if they are not states. Wouldn't be a correct State Diagram if these are just transitions.

CJ – The question is do we recognize these as states?

CJ – are we effectively communicating what the standard is doing?

Josh – Sees value in diagram. People might having a problem calling it a state diagram. Might be more of a flow diagram. Might want to change the name of the diagram to avoid confusion.

Dharma – flow diagram should not look like state diagram.

Tapan – Is the intent the diagram is a state machine?

Frans - Yes, it was intended as a state diagram.

Tapan – what do we mean by 1149\_10\_recognized?

CJ – like INIT\_SETUP in dot one. It's a setup routine in PDL.

CJ – can't show everything in one picture. Should be clear that enabling 1149.10 Interface is a method that enables the PEDDA. Figure is strong enough to relay that.

CJ – the blue bubbles in the diagram appear to be states as they would take a clock cycle or more.

We can pick up this discussion on the Reflector.

CJ – added second procedure in rule d to disable 1149\_10 mode and put it back into mission mode.

### Clause 6

Changed figure 6.1 to show clearer ordering

Reset Packet. Clause 6.4

Added method to reset the target ID other than a power cycle.

Section 6.4.2 b updated

Table 6.3 – shows LSB is the first transmitted. Time 0 is on right hand side. Shows how the bits will be shifted out.

CJ – pretty close to having something that is solid.

Scan Packet – Standardizing on bit transfer direction of left to right. MSB on left. And LSB on right to show LSB transmitted first.

Frans – in Figure 6-7 GROUP is not defined. Mentioned in rules but doesn't give enough information.

CJ – ok. Thought there was a section but will add more information on

Tapan – We had a discussion one day on it. But don't think it is in text.

CJ – rule 6.6.2.e mentions GROUP but will expand on what is written.

Deleted rule 6.6.2.c. It was a tool rule and not necessary. If there are any issues with that respond on reflector.

Frans – Figure 6-8 should we start with number Zero when counting for Channel Select?

CJ – For the most part things are Zero Based.

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CJ – channel select word number can't select a Zero. The Zero case means that there is no words that follow.

Channels themselves start at Zero. But ChannelSelect word zero would not make sense.

Clause 7

Section 7.1.1

Added BSDL definitions.

Wanted to bring in 1149.1 BSDL. Not the whole thing but to remind people what is the syntax of the BSDL file and added asterisks to show what is not required.

Section 7.4.3

Added more explanations.

**Next Monday (5/26) is a US Holiday (Memorial Day). There will be no meeting.**

Please use reflector to review what is in the Draft.

Please send comments to reflector.

Anything that needs to be fixed. Or comments on State Diagram.

Call for New Business

No new business

**Motion to Adjourn: Philippe**

**Seconded: Frans**

**Meeting adjourned: 12:03 pm EDT**

**Next Meeting:**

June 2<sup>nd</sup>, 2014 11:00am

*Motion Summary*

*0 motions made*

*Action Items*

~~*Bill Tuthill—10-21-2013—Add minutes and Attendance spreadsheet to the website.*~~

~~*CJ—11-11-2013—Reach out to ATE industry and Probe Industry to get update on future of ATE equipment to see which data speeds and protocols they are heading towards.*~~

*Philippe – Look into alternative method to create control information (pause, start, terminate, etc.) rather than using K characters in packet.*

*Bob – create a case study to show use of Attributes*

*Frans – will start some block diagrams of a simple use case to help illustrate the current architecture*

*Dwayne – present to the group his ideas for a simplified scheme – Direct Interface.*

NOTES:

1149.10 working group website - <http://grouper.ieee.org/groups/1149/10/>

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