

Date – 09/14/2015

Attendees: CJ Clark, Adam Ley, Bill Tuthill, Bob Gottlieb, Brian Turmelle, Craig Stephan, Dharma Konda, Dwayne Burek, Gobinathan Athimolom, Ismed Hartanto, Jon Colburn, Josh Ferry, Tapan J Chakraborty,

Absent with Excuse:

Not present for $\frac{3}{4}$ of meeting:

Missing: Bill Huott, Carol Pyron, Jim Wilson, Kent Ng, Kevin Gorman, Tom Wayers, Heiko Ehrenburg, Dave Armstrong, Roger Sowada, Zahi Abuhanmdeh, Saman Adham, Teresa McLaurin, Philippe Lebourg, Steve Sunter, Gurgen Harutyunyan, Frans de Jong, John Braden, Marc Hutner, Mike Ricchetti,

Agenda:

- 1) Patent Slides
- 2) Review/Discuss Clause 9
- 3) New business
- 4) Adjourn

Meeting Called to order at 11:00 am EST

Minutes:

Review Patent Slide – Slides Presented to the Group.

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

No other responses noted.

Clause 9 PDL

Enable and disable procedures.

Clause 4 rules d, e and f, we specify the procedures in PDL already.

Do we want to move these rules into the section in PDL or do we want to just reference them?

Josh- reference the rules. Already clear just point them out

Brian – referencing it is fine.

No one spoke up to move the rules to clause 9.

Section 9.1.2 Specifications will describe the commands and will reference rules in clause 4.

Disable and Enable
Additional rules in Clause 9 for PDL?
Iproc_enable
Iproc_disable

Level0 or level1 iProc
Do we want to add parameters?
Do we want to restrict the procedure so the tool will just execute the procedure and not ask for detail?
Please think of any additional rules that are needed.
Brian – would there be any difference between what you would enable on a chip tester versus board test?
CJ – channels might differ. The compliance doesn't differ.
Enabling and disabling compliance.
You don't get the other channels unless you do the channel bonding.

Bob – might want to have one lane in mission and other in DOT10test mode.
Jon – ways to configure so they are sliced up.
CJ – so what are thoughts? Need ability to apply compliance on a group of lanes or a don't care? Enabling compliance means that we enabled compliance and the designer
Bob – can't think of a case where we would want the flexibility
Jon – could be different environments where we only want to contact select pairs.
CJ – as editor thinking what just heard is that you are enabling compliance and the chip will be designed to enable compliance to a set of lanes and number of channels would be up to channel bonding. Hearing what we have is ok.
Bob – if we have multiple HSTAPS on a chip how are specifying those?
CJ – at the moment the procedures are designed to be chip level procedures. We are enabling compliance all or nothing.
Bob – not sure we would do it, but that is the case I was thinking of.
CJ – TAP accessible TDR's and having bits to specify enable the HSTAPS with these bits.
CJ – will leave it as is and see if it meets the needs as we go.

Disable Raw Mode
Ability through the TAP to turn it off.

Do we need more for Clause 9?
Bob – everything we want to be able to control from 1149.1 goes here?
CJ – as editor, the only thing you need to enable DOT10 through the tap is in procedure. There shouldn't be anything else needed to get DOT10 to function.
Bob – the disable RAW mode isn't required to get in and out of DOT10? Option to get out of it if we are in this infinite RAW mode.
Is there any other cases like that, where we would want the TAP to assist. Would like to think about it.
CJ – right. As a group let's think about if there are any other procedures needed to get things going in DOT10

IEEE 1149.10 High Speed JTAG Working Group Minutes

Dwayne – nothing to get it processing packets. Once in the DOT10 mode it starts processing packets?

CJ – yes. There is nothing extra to send in.

Clause 10

Compliance Verification

Need to supply steps to verify compliance and working as expected.

The editor will start to outline the steps in the coming weeks.

Ismed – for clause 10 do we specify the compliance at the PHY level? How far do we say that it is compliant?

CJ – the compliance of the HSTAP and PEDDA. Not going to look at board level compliance. Not been envisioned that way but up to the group to decide.

Ismed – up to user to define PHY protocol?

CJ – compliance is the HSTAP and PEDDA. But open to the discussion.

CJ – up to the group but since we support all different protocols we would leave to the user the physical layout. We are piggy-backing the mission mode connections and use the mission mode protocol as a guideline.

Call for New Business

No New Business

Motion to adjourn: Ismed

Seconded: Tapan

Meeting adjourned: 12:00pm EST

Next Meeting:

September 21th, 2015 11:00am

Motion Summary

0 motion 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.*~~

IEEE 1149.10 High Speed JTAG Working Group Minutes

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.

Adam—invite someone from IEEE to speak on IEEE benefits of standardization at WG meeting

Call for Essential Patent notes

Adam Ley 12/1/2014

PN, TTL, AN

7348796, METHOD AND SYSTEM FOR NETWORK-ON-CHIP AND OTHER INTEGRATED CIRCUIT ARCHITECTURES, DAFCA INC.

Steve Sunter 11/17/2014

1. US 7610532 "Serializer/de-serializer bus controller interface" Avago, granted 2009
2. US 7739567 "Utilizing serializer-deserializer transmit and receive pads for parallel scan test data" Avago, granted 2010
3. US 8543876 "Method and apparatus for serial scan test data delivery" Altera, granted 2014

NOTES:

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

Here is the WebEx conference link.

<https://meetings.webex.com/collabs/meetings/join?uuid=MAG12PB7HN5W24AM2EOKIOM9KS-KERT>

You can use VOIP on your computer or dial-in using the phone number below.

Audio Connection

+1-415-655-0001

Access code: 194 196 960