

Date – 11/03/2014

Attendees: CJ Clark, Adam Ley, Bill Tuthill, Bob Gottlieb, Brian Turmelle, Craig Stephan, Dharma Konda, Frans de Jong, Gobinathan Athimolom, Jon Colburn, Josh Ferry, Steve Sunter, 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, Dwayne Burek, Zahi Abuhanmdeh, Mike Ricchetti, Saman Adham, Gurgen Harutyunyan, Teresa McLaurin, Philippe Lebourg, Marc Hutner, Ismed Hartanto,

Agenda:

- 1) Patent Slide
- 2) Discussion of draft 41
 - a. Draft 41 is on the website in private area
 - b. Added definition of striping and channel bonding
 - c. Updated and added rules for striping

Meeting Called to order at 11:09 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 Draft 41

Clause 7 has not changed much in the last few meetings and may be ready to vote on.

CJ is adding a small update and will send out to reflector.

Possible vote up or down next meeting??

Definitions added for striping and channel bonding in Clause 8.

Channel Bonding.

Figure 8-1 shows four lanes and how data would be transmitted from ATE to HSTAP using channel bonding.

Striping.

Round Robin striping approach.

Only method supported

Rules for channel bonding have been updated

SOP will be on the first lane

EOP can happen on any lane so there is a variable number of idle packets.

Bob – Single lane HSTAPs might be easier. And having multiple Single Lane HSTAPs for extra bandwidth. As long as flexibility for both exists that is ok.

Would have it going to independent cores that had their own HSTAP and wouldn't need to sync much if any between the HSTAPs.

CJ – interconnect between dies in a multi-die IC. This configuration may need some synchronization.

Bob – makes sense to have both options.

Steve – striping done in SERDES already? Would it be built into it already? Here you show it happening in the PEDAs

Bob – sometimes there is a tendency to overload the DFT on top of the interface. We try and avoid using the de-skew logic. You could but you are using the same training methods to bring up the link and that may require more logic and work than needed.

Steve – so does that mean we should be looking to synchronize across multiple PEDAs?

Bob – maybe. And when are the cases we need to do that? Keep chains separate between them, but there will be cases where there are interconnects between them.

CJ – For clarification – There are not multiple PEDAs in described in chapter 8. Multiple PEDAs are in the architecture Bob was looking to do with multiple HSTAPs. Chapter 8 was showing a Channel Bonding scenario with only one PEDAs. Also trying to be independent of the protocol on the wire. Putting the logic for striping into the PEDAs will keep the logic from being specific to a protocol

Need to come up with permissions and recommendations for section 8

Send New Business request to reflector

Please use reflector to review what is in the Draft.

Please send comments to reflector.

Anything that needs to be updated or you would like discussed

Motion to Adjourn: Bob

Seconded: Steve

Meeting adjourned: 11:37 EST

Next Meeting:

Nov 10th, 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.*~~

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

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