

IEEE 1149.10 High Speed JTAG Working Group Minutes

Date – 01/25/2016

Attendees: CJ Clark, Adam Ley, Bill Tuthill, Bob Gottlieb, Brian Turmelle, Craig Stephan, Dharma Konda, Gobinathan Athimolom, Heiko Ehrenburg, Josh Ferry, Mike Ricchetti, Steve Sunter, Tapan J Chakraborty,

Absent with Excuse:

Missing: Bill Huott, Carol Pyron, Jim Wilson, Kent Ng, Kevin Gorman, Tom Wayers, Dave Armstrong, Roger Sowada, Zahi Abuhanmdeh, Teresa McLaurin, Philippe Lebourg, John Braden, Saman Adham, Ismed Hartanto Frans de Jong, Gurgen Harutyunyan, JF Cote, Jon Colburn, Marc Hutner, Dwayne Burek,

Agenda:

- 1) Patent Slides
- 2) Old Business: Discuss Recommendation/Figure with b-s register and P1149.10
- 3) MEC and ballot formation.
 - a. Changes can be made after MEC. MEC takes a month.
 - b. Ballot pools good for six months.
 - c. Should consider voting in the coming week on going to MEC and forming ballot pool. (This is not the same as 'going to ballot').
- 4) Step through v83 changes
 - a. A note was added to Step 13 to remind the reader that by that step 2**16-1 packets (containing config, target data and CRC32s on all data) have been sent from HSTAP to PEDDA and back successfully in verification. (There was a concern brought up that a zero bit TDR was needed to verify the design from HSTAP to PEDDA). The note further reminds that more patterns can be applied if desired to test HSTAP to PEDDA interface by simply sending random SCANR packets to the receiver. An alternative is also using iRAW packet verification steps (see Clause 10). all RAW data also goes in and out of the PEDDA as well such that it can count it. Editor Note: Clause 10 is an informative section on design verification not silicon test.
 - b. Updated PACKET_MAP to use Scan_Group only
 - c. Updated SCA to include a list of SC that don't overshift.
 - d. Updated Clause 10 verification algorithm to deal with both scan-channels which don't overshift and unequal length scan-channels.
- 5) New Business
- 6) Adjourn

Meeting Called to order at 11:05 am EST

Minutes:

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Review Patent Slide – Slides Presented to the Group.

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

No responses noted.

Discuss b/s register figure for p1149.10

How to exclude Boundary Scan register from HSTAP

Do we include it and where do we put it??

Rule or informative??

Version 83 Changes

Compliance Verification

Updated Step 13

Scan Channel Association

NO_OVERSHIFT ADDED

More updates to Compliance Verification section

Added more steps

Motion to Adjourn – Bill

Seconded – Brian

Meeting adjourned: 11:57am EST

Next Meeting:

February 1st 2016 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.*~~

~~*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*~~

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***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