

**Date – 10/26/2015**

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

**Absent with Excuse:**

**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, Dwayne Burek, Marc Hutner, ,

**Agenda:**

- 1) Patent Slides
- 2) Review of Josh's PDL command document
  - a. Changes sent last week
  - b. Do we have enough to motion to include this in the draft subject to further refinement?
- 3) New Business
- 4) Adjourn

**Meeting Called to order at 11:04 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.

Review of PDL commands.

Josh likes the write up of the commands.

Group was asked if there any reservations in include write-up with the PDL section.

No one objected

Josh makes motion to include PDL\_commands version 4 (amended) in the main drafts subject to further editorial or other changes as necessary.

Bill seconds motions

## IEEE 1149.10 High Speed JTAG Working Group Minutes

11-Yes

Bill T	Craig S	Ismed H	Mike R
Bob G	Dharma K	Jon C	Tapan C
Brian T	Gobi A	Josh F	

0-No

2-Abstain

Adam L	Dwayne B
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Motion passes.

11 Yes 2 Abstain

Call for New Business

Bob wants to discuss the Raw Mode

How does Disable\_RAWMODE work?

CJ – COUNT used. If you switch and off by a couple of bytes not sure if that has any ill effect.

Count of 3(bytes) Still have to do format on 32 bit boundary and encoding. Count is not precise because you need to allow for the rest of the data. Can't drop data when count goes to zero, would need to account for extra data.

Maybe there should be something in the rules to better describe that?

Bob – yea. Need to think about it more.

Bob – use model for this is that we have some test content that isn't working. Would put a raw mode command before it and put the whole think in a loop back to make sure data is getting on and off the die right.

Bob – going over some examples will help clear it up

Call for any more New Business

No more new Business

Motion to Adjourn – Bob

Seconded – Tapan

**Meeting adjourned: 11:35 am EST**

**Next Meeting:**

November 2<sup>nd</sup> 2015 11:00am

***Motion Summary***

***Motion made***

*Include PDL\_commands version 4 (amended) in the main drafts subject to further editorial or other changes as necessary*

*Passes*

*11 Yes 0 No 2 Abstain*

## IEEE 1149.10 High Speed JTAG Working Group Minutes

### *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.*~~  
~~*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