

## IEEE 1149.10 High Speed JTAG Working Group Minutes

### **Date – 03/10/2014**

**Attendees:** CJ Clark, Adam Ley, Bill Tuthill, Bob Gottlieb, Brian Turmelle, Craig Stephan, Dharma Konda, Josh Ferry, Jon Colburn, Roger Sowada, Tapan J Chakraborty, Teresa McLaurin,

**Absent with Excuse :** Marc Hutner, Frans de Jong,

**Not Present for ¾ of meeting:** Dwayne Burek, Dave Armstrong, Philippe Lebourg, Gobinathan Athimolom,

**Missing:** Bill Huott, Carol Pyron, Jim Wilson, Kent Ng, Kevin Gorman, Saman Adham, Tom Waayers, Heiko Ehrenburg, Gurgen Harutyunyan, Zahi Abuhanmdeh, Mike Ricchetti, Ismed Hartanto, Steve Sunter,

### **Agenda:**

- 1) Patent Slide
- 2) Clause 4 Discussion
  - a. The current wording is trying to capture the essence of the HSTAP and methods of compliance.
- 3) Motion proposal: “Motion to accept Clause 4 subject to further editorial changes”
- 4) Clause 5 Discussion
- 5) New Business

### **Meeting Called to order at 11:10 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

A quorum was not met so there was no vote for clause 4.

A straw man poll was taken in the interim to gauge the group’s acceptance of Clause 4

Straw man poll results-

Bill yes	Bob yes.	Brian Yes
Craig yes	Dharma Yes	Jon no response
Josh Yes	Roger Yes	Tapan yes
Teresa Yes	Adam no feedback.	

Discussion about Flow chart submitted by Frans.

Bob – Flow chart. If we get NO on Compliance, where do we go into Mission mode?  
CJ – not comfortable with term mission mode. Chip itself may be in mission mode. What this is describing is if pins for tap are in mission mode or 1149.10 modes. Node flow from power up to 1149.10 test. So if no compliance enable mechanism interface is to be compliant after power up.

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Bob – This flow doesn't handle if it is a shared interface(both mission and test). Don't have a flow that leaves it alone.

CJ – You couldn't have it shared and have it follow the no's. If it is shared you will have one of these.

Bob – Doesn't feel flow isn't complete.

CJ – if it is shared you would have to have a yes on one of the decisions.

CJ – flow chart of what you do operationally. Not what the rules are.

Bob – the rules may be what Frans was trying to get at.

CJ – You don't need compliance enables if it is dedicated interface.

Bob – you would if it was shared.

CJ - The flow chart is what you do with one of the compliances. Just operational. What do you do after power up?

Bob – if the port is dedicated it will flow down and be in test.

Flow chart updated to add mission mode decision block to allow for mission mode only interface and to not go into 1149.10 test

Teresa – if you say no to everyone than you go to test? Must be dedicated interface?

CJ – if you don't supply TAP, compliance pins, compliance char than you have an HSTAP that is dedicated to test.

Teresa – is that what was not obvious?

Bob – right. Looks like if we don't set up any of the 3 things than we will go right to 1149.10 tap. Which isn't right unless it is dedicated tap.

Flow chart updated to reflect that if none of the 3 things than decision point if dedicated or stays in mission mode.

### Clause 5

Packet encoder/decoder distribute

Discussion on Rules text

Bob – don't want to add more to right side. No more restriction on right side is good.

CJ – sufficient for appropriate scan channel interface. Or do we need to enumerate that?

Bob - examples are good.. Don't need to explain more.

Teresa- examples are needed.

CJ – still more work to do on clause 5

### Clause 6

CJ – added clock packet. Need some method to adjust clock for shifting.

Also added user defined packet so someone can do something that we haven't anticipated. Need to create syntax for that packet.

CJ – is there a need to adjust clock.

Bob – indirectly specifying how the clocks

CJ – right. Other information in PEDDA that could be used to adjust clocks.

Bob – need to think about it more. Good point though.

### Clause 4

No further discussion.

Call for new business  
No new business

**Motion to Adjourn: Philippe**  
**Seconded: Bill**

**Meeting adjourned: 11:52 EDT**

**Next Meeting:**  
March 17<sup>th</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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**Notes**

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