

Date – 4/13/2015

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

Agenda:

- 1) Patent Slide
- 2) No meeting on April 27th (VLSI Test Symposium conflict)
- 3) Draft 55. This incorporates the changes of V54 (in a different color) and V55.
 - a) Changes due to WG vote for 32 bit formatting
- 4) New business

Meeting Called to order at 11:05 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.

Draft 55 Review

Review of changes made based on motion from last meeting to create boundaries of 32 bits.

Updated rules and permissions

Total packet length will be multiple of 4 byte length

Packet ends with 4 EOP characters

IDLE come in multiple of 4

Error character + 3 bytes

Xoff/Xon must be 4 bytes and before SOP

Clear characters must be in multiple of 4

Config packet looks the same.

SOP 1 byte, Config 1 byte, Target ID 2byte - one frame

CRC32 on one frame

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- EOP multiple of 4
- Reset Packet
 - Reformatted for 32 byte boundaries
 - Type field increased to 16 bits
- Raw Packet
 - Padded with 0's in first word. SOP/RAW + 0x0000
- Scan Packet
 - Needs to be adjusted to be in new 32 bit boundary format.
 - #PAYLOAD shall be a integer multiple of packet frames
- Scan Channels
 - Examples need to be fixed for alignment
- Bond Packet
 - Padded with 0's in first word. SOP/BOND/ + 0x0000

Alignment size removed from attributes

Craig – scan packet added was after payload frames. Might make more sense to put it after the channel select bytes. That is what it is associated to. Would make the number of payload field 32 bit align

CJ - #Payload is only 16 bits.

Now that it represents number of frames it was shortened down from 32. At 32 bits the counter was much larger than ever needed

Motion to adjourn: Tapan
Seconded: Bill
Meeting adjourned: 11:47 pm EST

Next Meeting:
April 20th, 2015 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*~~

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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