Minutes of SAS PHY Working Group conference call December 7, 2006 T10/07-004r0

Attendance:

Mr. Bryan Kantack	Agilent Technologies, Inc.
Mr. Paul von Stamwitz	AMCC
Mr. Jesse Jaramillo	Amphenol
Mr. Kevin Marks	Dell, Inc.
Mr. Ramez Rizk	Emulex
Mr. Barry Olawsky	Hewlett Packard Co.
Ms. Carrie Cox	IBM Corp.
Mr. James Rockrohr	IBM Corp.
Mr. George O. Penokie	IBM Corp.
Mr. Schelto van Doorn	Intel Corp.
Dr. Mark Seidel	Intel Corp.
Mr. Gabriel Romero	LSI Logic Corp.
Mr. Keith Maloney	LSI Logic Corp.
Mr. Paul Wassenberg	Marvell Semiconductor, Inc.
Mr. Galen Fromm	Molex Inc.
Mr. Michael Rost	Molex Inc.
Mr. Robert Watson	PMC-Sierra
Mr. Rick Hernandez	PMC-Sierra
Mr. Alvin Cox	Seagate Technology
Mr. Benoit Mercier	STMicroelectonics
Mr. Stephen Finch	STMicroelectronics
Mr. Doug Loree	Toshiba
Mr. Kevin Witt	Vitesse Semiconductor
Mr. Larry McMillan	WDC

24 in attendance

Review of items using 06-496 as the basis and considering the 07-001 discussion.

Kevin has included an additional pk-to-pk value of 1300 mV to cover noise that is added to the transmitted signal. Is this something that should be added?

Pk-to-pk and mode voltages to measure de-emphasis?

The mode-based voltage measurement method is not widely understood. Alvin will provide a definition of mode voltage measurement.

Use of return loss plots and impact to the DC requirements in the tables.

Do we lose the mismatch and does it even matter?

Can it be dropped?

Is it covered by common mode?

Do return loss numbers cover what these try to address?

Schelto and Alvin to investigate background of the DC values.

Barry will make some measurements to determine if the low frequency issues are being captured.

Barry to propose a set of loss values for a zero length test load.

Should the reference transmitter be allowed to optimize de-emphasis to determine if the channel is compliant?

Alvin brought up this issue since the receiver is the only end that is optimized during standard SAS operation. The OIF standard optimizes both the transmitter and receiver in

the StatEye simulation, but since SAS has no provision to tune the transmitter, Alvin did not consider transmitter de-emphasis tuning as a fair expectation to determine channel compliance. Most implementations will probably tune de-emphasis based on the known channel characteristics. Disk drives typically have not provided the “handles” to allow this tuning, so a “fixed” transmitter de-emphasis may be supported, but it should be allowed to be adjusted.

Alvin to get a STA opinion on 10e-15 channel simulation requirement.

Next call: 12/14/2006

Agenda: Review of above action items and continue specification discussion.

Weekly teleconferences scheduled for Thursdays at 10 am CST:

PARTICIPANT INFORMATION:

Toll Free Dial in Number: (866) 279-4742
International Access/Caller Paid Dial In Number: (309) 229-0118

PARTICIPANT CODE: 3243413

Webex information:
https://seagate.webex.com/seagate

Topic: SAS-2 PHY WG
Date: Thursday
Time: 10:00 am, Central Standard Time
Meeting number: 826 515 680
Meeting password: 6gbpsSAS

No call on 12/28.