

Attendance:

Mr. Bernhard Laschinsky	Agere Systems
Ms. Fei Xie	Agilent Technologies, Inc.
Mr. Chris Heard	Amphenol
Mr. Marc Cartier	Amphenol
Mr. Jesse Jaramillo	Amphenol
Mr. Greg McSorley	Amphenol
Mr. Kevin Witt	Dallas Semiconductor
Mr. Kevin Marks	Dell, Inc.
Mr. Ramez Rizk	Emulex
Mr. Barry Olawsky	Hewlett Packard Co.
Mr. Dan Colegrove	HGST
Dr. Mark Seidel	Intel Corp.
Mr. Michael Jenkins	LSI Logic Corp.
Mr. Gabriel Romero	LSI Logic Corp.
Mr. Marc Marlett	LSI Logic Corp.
Mr. Galen Fromm	Molex Inc.
Mr. Hock Seow	NEC Electronics America, Inc.
Mr. Tim Symons	PMC-Sierra
Mr. Robert Watson	PMC-Sierra
Mr. Rick Hernandez	PMC-Sierra
Mr. Joseph Chen	Samsung
Mr. Edward Chang	Samsung
Mr. Alvin Cox	Seagate Technology
Mr. Benoit Mercier	STMicroelectronics
Mr. Mahbubul Bari	Vitesse Semiconductor
Mr. Larry McMillan	WDC
Mr. Ramya Dissanayake	

27 in attendance

Agenda:

1) 07-063r3 SAS-2 6Gbps PHY specification [Cox]
<http://www.t10.org/ftp/t10/document.07/07-063r3.pdf>

Reviewed 07-162 Effect of Crosstalk on HP25 SNR Margin [Jenkins]
<http://www.t10.org/ftp/t10/document.07/07-162r0.pdf>

This includes crosstalk of HP-19. Mike is going to provide additional data, so the "vote" on the number of taps for the reference receiver model has been postponed to 4/5.

Discussion continued on the number of taps, amount of transmitter de-emphasis, crosstalk impact, and noise considerations.

Barry will contact Amphenol with specific questions regarding additional experience they have with crosstalk testing. New Amphenol contacts on the call today can be emailed at the following:
chris.heard@amphenol-tcs.com
marc.cartier@amphenol-tcs.com

Concerns were expressed regarding the low levels of crosstalk included in the modeling.
2) Reviewed the update to the transmitter equalization testing.

Alvin will make a couple of changes based on today's discussion.

3) Jitter test patterns

Briefly reviewed the two FCAL proposals mentioned by Mike Jenkins:

These are 8G Fibre Channel documents describing test patterns which he would like to propose for consideration in the 6G SAS spec. The motivation for new patterns is that scrambling made previous patterns far too pessimistic. Even in the unlikely event that a CJTPAT-like pattern did occur, scrambling which includes the frame header would now ensure that it did not repeat.

The 1st presentation describes what is now termed JSPAT, a 500-bit, spectrally rich payload pattern for TX jitter testing. The 2nd presentation describes JTSPAT, a pattern with sequences like CJTPAT but within the 1e-12 probability of occurrence.

- SJPAT for 8GFC PWS and WDP, <http://www.t11.org/ftp/t11/pub/fc/pi-4/06-787v0.pdf>
- Proposal for 8GFC Jitter Test Pattern, <http://www.t11.org/ftp/t11/pub/fc/pi-4/06-655v1.pdf>

Both of these patterns have been voted into the 8GFC draft spec.

SAS concerns:

- The size of the patterns.
- These patterns depend on negative starting disparity which FCAL has, but SAS and SATA do not. That would make a SAS implementation twice as large if the starting running disparity is not forced to negative for this test.
- CJTPAT is already used and built into designs. Is there really a need to change?

Next teleconference 4/5, 2007

No teleconference 4/12.

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Webex information:

<https://seagate.webex.com/seagate>

Topic: SAS-2 PHY WG

Date: Thursday

Time: 10:00 am, Central Daylight Time (GMT -05:00, Chicago)

Meeting number: 826 515 680

Meeting password: 6gbpsSAS

SAS-2 PHY face-to-face 4/16 – 4/17 in Houston. See link below for details. Hotel cut-off is 4/2.

SAS Phy WG Apr 17 9a-6p [Houston, TX](#) / Elliott
 Apr 18 9a-2p