SAS PHY Teleconference Monday, September 30, 2002   T10/02-400r0

Attendance:

Richard McMillan   Adaptec
Bernhard Laschinsky   Agere
Bill Gintz
Lafe Moon   Data Transit
Doug Wagner   FCI
Takeshi Okuyama   Fujitsu
Rob Elliott   HP
Barry Olawsky   HP
George Penokie   IBM
Andrew Cable   Intel
Mike Jenkins   LSIL
Russ Brown   Maxtor
Ting Chan   Qlogic
Alvin Cox   Seagate
Al Kramer   Seagate
Mike Jensen   ST Microelectronics

16 people in attendance.

1. External connector (Cox)

Reference T10/02-391r0. Review and vote on proposal.

Cox will update the proposal to specify which connector (thumbscrew
version) SAS will use. Verified signal order to be consistent with
another standard. Cable characteristics are controlled by the
compliance point requirements.

2. Common mode specification (Brown)

Reviewed common mode proposal. 1 V is probably too low for the
transient level. Jenkins, Cable, and McMillan to check on acceptable
level, probably in te range of 1.2 V. Brown to check bandwidth for
ability to detect problems. Maximum common mode signal component
considered too low. Cox to post report by Bruce Johnson. What do we do
with TBD's for Y1 and Y2. Should we drop the values and let the Y
values be supplier-unique?

3. Define conditions for "loss of signal"

Based on the impact to the system, what defines a loss of signal? One
bit?
Voltage level loss? Etc.

All to review specification use of "loss of signal" and determine if
necessary. Suspected carry-over from FCAL concerning optical connection
rather than copper.

Discuss on next call.

4. Review what PHY group wants to count on the SMP REPORT PHY ERROR
LOG.

List below made intially by PHY working group. Is this what we want?
What interactive errors stop counts on others?

PHY group suggested error report items in order of significance:

* Loss of signal
* OOB signal detected but can't negotiate OOB (expander log)
* Speed negotiation at each speed (count of successes for G1, G2, ?)
* Disparity error count
* Illegal character count
* CRC error count
* Loss of synchronization

PHY group to reconsider list as is currently proposed. Juzer has
provided the following link that should be considered when evaluating
the need for this log page.

www.reed.com/Papers/EndtoEnd.html

The paper presents a persuasive but heuristic argument of the end-to-
end principle. The principle suggests that functions (like loss of
signal and other error check functions) placed at low levels of a
system may be redundant or of little value when compared with the cost
of providing them at that level.

Seagate input that log page is needed.

5. Status of proposals:
  a) Test load
  b) Test patterns
  c) OOB signaling levels

All are pending.

6. New items

None.

7. Meeting schedule

Due to T11 meeting next week, the Monday call wil be moved up to
Thursday, October 3, 2002.

Next call:

SAS PHY Teleconference Thursday, October 3, 2:00 pm - 4:00 pm CDT

PARTICIPANT INFORMATION:

All Participants should use the following information to reach the
conference call:

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

PARTICIPANT CODE: 3243413

Webex information:

Meeting Summary
Meeting Name: SAS PHY WG
Scheduled Time: 10/3/2002 at 1:45PM (GMT -05:00) Central Time, USA &
Canada (DayLight Time).
    Meeting Number: 281981011
    Any meeting attendee can use this number to join the meeting, at
    https://seagate.webex.com/join/

    Password: morecommon