Meeting minutes from April 20 2005 channel ad hoc conference call:

Presentations:
Agenda: (Charles Moore presenting)
May 4,11 next teleconferences
May 11 corrected date for request for presentations for the interim meeting.

Charles Moore presented his view of link budget model (from agenda presentation)
Comments:
Rich Mellitz: Good approach but needs work on the processes inside the boxes.
Need to correlate to results from various system simulations.
Fulvio: Item 4 page 8: What do you think the RX slicer margin includes?
Charles: amplitude required by slicer to determine H vs L.
Fulvio/Charles:Duty cycle distortion penalty is included in the final eye not the intermediate eye. Is this acceptable?

General channel pulse response discussions.

Justin: Why is crosstalk added after RX eq?
Charles: it is in reality added before the RX but in order to preserve the form of the link budget it is added after the initial eye is formed. We may want to take into account the effects fo the RX eq. on the crosstalk. Assumption is that the DFE based RX will pass on crosstalk w/o affects.
Petre: If we assume the crosstalk is uncorrelated than the crosstalk will have no effect on the RX eq. settings.

Adam: should we have link budget table?
Charles: Creation of the table and filling in the numbers would be separate tasks.
We should look at what other groups have done as a starting point.
We could start with Petre's list.
**Adam will work with Charles and Petre to generate list.

Informative AC parameter analysis presentation: (Rich Mellitz)
Matlab program
Rich used the word horizontalized

Joe: Believes there is a lot of room to possibly pass failing channels.

Charles: Note this is currently only for an informative spec so it does not have to be perfect.
Adam: Believes the informative channel model must reject all bads channels. i.e. more stringent than the normative.
Discussion about the setting of the bar on the graph. i.e. how much margin should we have.
John: the ACR will take into account the crosstalk.
Mike: Does anyone have analytical proof that the methodology is valid?
Charles: We do not have an analytical proof for this method and that is why it will be informative instead of normative.
Rich: Referred to previous IEEE presentation for some analytical material.

Anirudha: Stubs longer than 70-80mm are causing the ripple in the channel. How does this method address these channels?

John: The method of smoothing out the channel ripple by adding line card attenuation is consistent with Rich's presentation.

Bill: Believes that a small change in the data could fail a large number of channels.

Rich: Asked for more input on channels: Both S parameters and measured data.
i.e. new Peters channels are now available on the data base (as of today)

Next presentation: (Rich Mellitz)

Normative channel pulse response report

Conclusion: using the channel pulse response is not going to work for a normative channel model.

Fulvio: His data shown on page 8 uses the same MSE for both voltage and timing and therefore his data is not valid. (Fulvio's data was the only one that showed good correlation.)

Results are shown w/o crosstalk. But did include package.
Rich: results with and w/o crosstalk did not change the correlation.
Joe: Proposed that people verify their data for errors.

Rich Mentions the use of Fairy dust as a possible solution to the problem.

Charles: soliciting contributions for first eye.

Tom Palkert