

ad hoc report on TP2 conference calls

Calls between
Portland (7/04) and Ottawa (9/04)

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Agreed objectives

- Present a proposal for TP2 signaling parameters* and associated conformance testing at the September Meeting.
- The work must consider and provide tradeoff information among component cost, test cost, [power,] and optical power penalties.

*Time and/or frequency domain parameters; not optical geometries, coupling, etc.

History

- Call dates
 - 7/30, 8/6, 8/19, 8/26, 9/2, 9/9, 9/16, 9/21
- Presentations
 - 8/6 - organizational, Lindsay
 - 8/19 - penalties vs. simulated lasers, Hanberg/Lobel
 - 9/9 - cost vs. performance tradeoffs (verbal), Van Schyndel
 - 9/9 - penalties vs. experimental waveforms, Swenson
 - 9/16 - TP2 test framework proposal, Lindsay
 - 9/23 - TP2 test framework proposal(2), several
 - 9/23 - draft TP2 ad hoc summary, Lindsay
- Most presentations are on task force web site

Progress

- Specific discussions about costs, laser types, etc. have been informative, but...
- Efforts have shifted to working directly on test framework and specs - 2 approaches:

LR Mask only

- +Familiar, common, intuitive
- +Uses LR instrumentation
- Mostly qualitative
- Does not distinguish correctable/uncorrectable
- Indirect prediction of performance at TP3
- No clear tie to link budget, may allow penalties not in current budget

vs

New proposal

- +Close ties to link budget, good control of penalties
- +Distinguishes correctable/uncorrectable, promotes design flexibility
- +More direct prediction of performance at TP3
- +Quantitative
- Requires equipment upgrade for many
- New approach, unfamiliar for some; not a quick/intuitive test

- Consensus building around new proposal
 - also interest in an informative graphical view

Ottawa presentations

- Ad hoc report (this presentation)
- Comparison of EDC-enabled link performance using measured waveforms from 2.5G and 10G lasers
 - Swenson, ClariPhy
- PIE metrics and mask testing
 - Ewen, JDSU
- New TP2 test and specification framework proposal
 - many

Future

- TP2 work needs to continue
 - Coordinate and be compatible with
 - Channel modeling groups
 - TP3 group
 - Choose/refine test framework and methods
 - Determine/refine detailed specifications
- Organization
 - Continue separate TP2 meetings