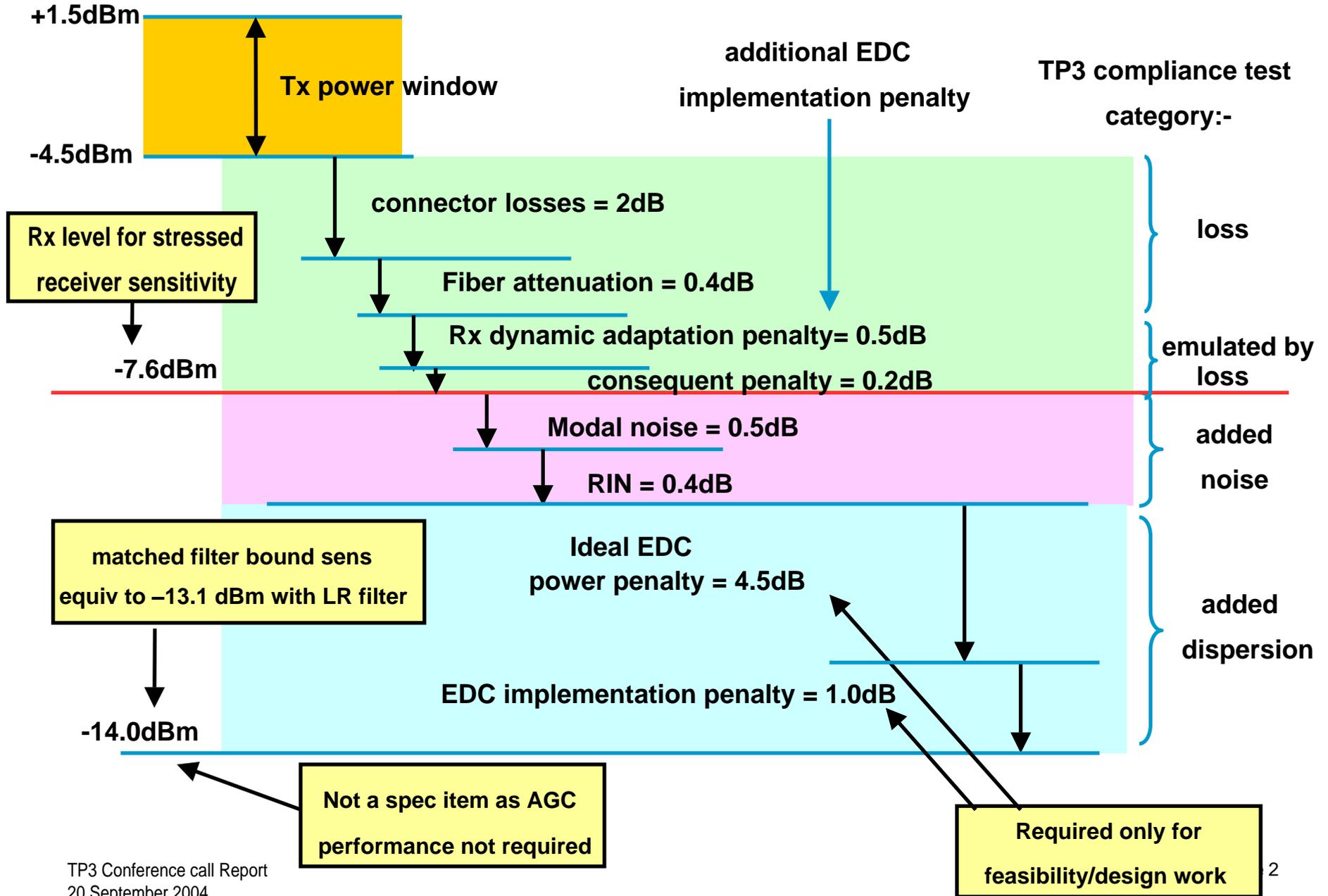


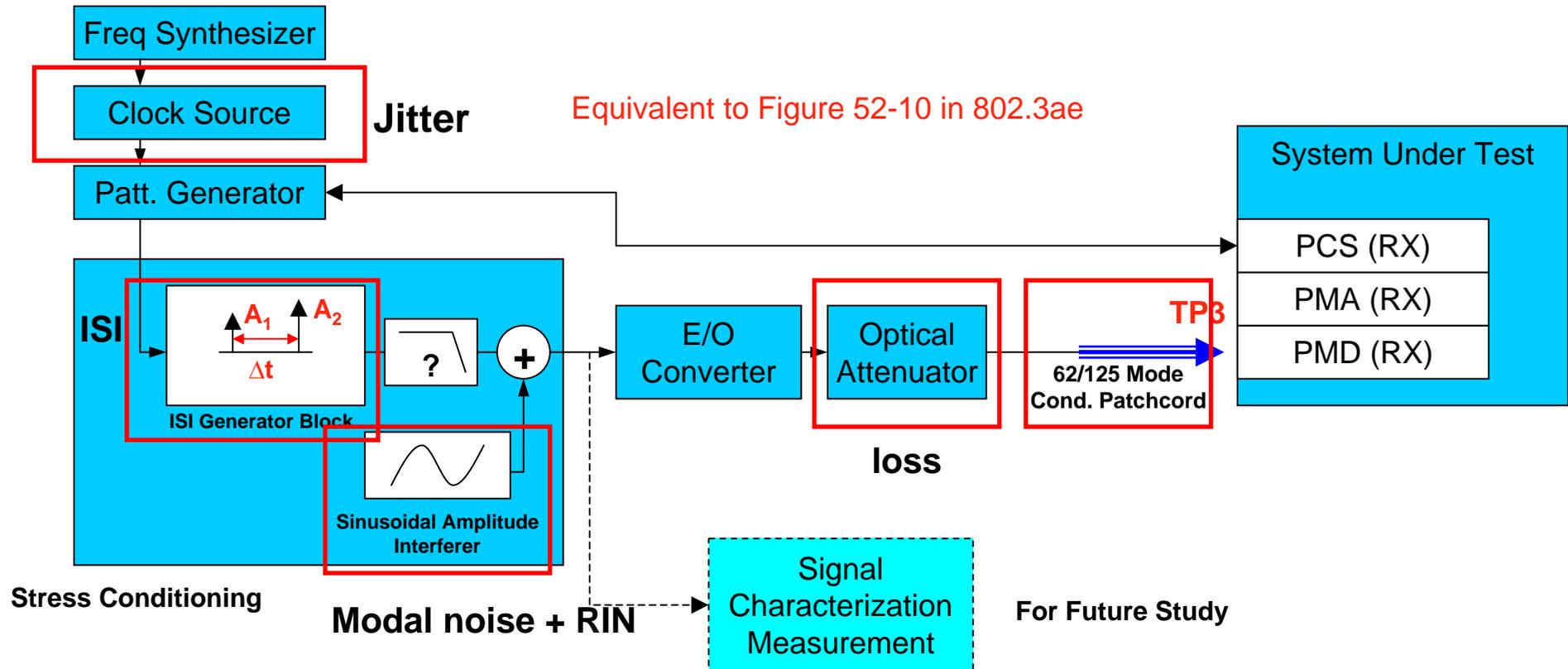
Report from Conference Calls on TP3 Specification

- **Review of link budget**
- **Low Aronson /Jens Fiedler Oregon Proposal**
- **Philosophical debate**
- **Review of Stressors**
 - **ISI (static + time varying)**
 - **Modal noise + RIN**
 - **Jitter**
 - **Optical mode conditioning**
- **Conclusions & Further Work**

Interpreting the EDC Link Budget (OMA)

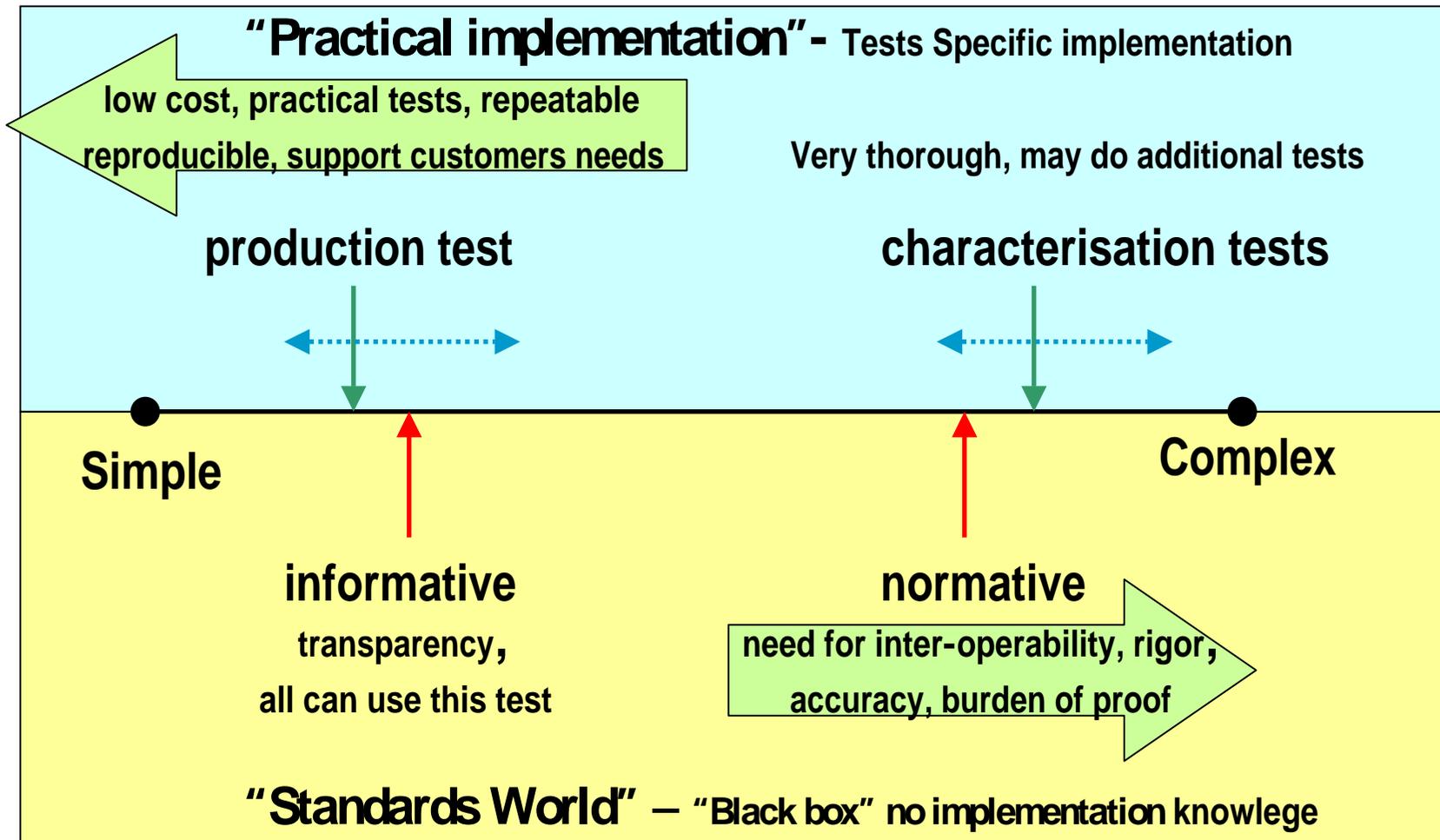


Lew/Jens Oregon Proposal



- Leverages strongly off 10GBASE-LR
- Motivated to keep it simple whilst still represent all the key stressors
- Motivated to have practical test with reproducible results

Philosophical Debate – simple vs complex?



- How much do we concern ourselves with practical implementation?
- To what extent do we want alignment with practical implementation choices?
- **Group favors simple but NOT at the expense of rigor**



- **Presentation by Petre Popescu and Piers Dawe**
 - Tested “3 impulse model” fitting to Cambridge delay profiles with reasonably good fits achieved
 - Open issues:-
 - which delay profile sets to choose?
 - How much can the parameters be restricted to ease implementation and yet still be valid (fixed equal delays?)
- **Presentation? by Willcocks and Weiner (Phyworks) on characteristics of “3 impulse” test**
 - Explored PIE-D and PIE-L vs a range of normalised 3 impulse channels
 - useful tie-in with outstanding questions in Petre’s work
 - Proposed 1.0 UI and $a=0.55$
 - Proposed modulation of this for dynamic effects
- **Measurements by Venu Balasubramonian (Scintera) on impact of E-O-E non idealities**
 - Results to date indicate electrical ISI generator will be acceptable
- **More work on representing time varying channel**
- **No measurement data presented either**

Modal Noise + RIN

- **Lew suggested that we model modal noise + RIN as a sinusoid noise source**
 - **some reservations with a suggestion of using a PRBS**
- **Infineon doing some work on this area**

Jitter

- **Lew suggested a single high frequency jitter test (around 40-80MHz)**
- **Tom Lindsay has investigated this further and recommends an additional separate test (not part of normative stressed test) to test the loops ability to track low frequency jitter (5UI @ 40kHz)**

Optical Mode Conditioning

- **The group felt that a regular (Gigabit style) mode conditioning patch cord would be sufficient**

Conclusions and Further Work

- **Key Findings to date:-**
 - **“3 impulse” model is looking promising**
 - **Assessing proposal for parameters and use of modulation for time varying effects**
 - **Electrical ISI generator approach appears valid**
- **Further Work items:-**
 - **Need to select and validate impulse response and determine what restrictions are acceptable**
 - **Develop technique for testing for time varying fluctuations**
 - **channel adhoc is characterizing time varying fluctuations**
 - **Establish suitable noise model for modal noise and RIN**
 - **Agree required jitter test**
 - **Develop simplified normative test**
 - **Build and validate test**