Channel Modelling Ad Hoc

Task 1 – Static Channel Model

• Several meetings held –

• Review of Gen67, OM3 and CTM approaches by Task 1

• Outcomes include (motions to this meeting)

  • Confirm 108 fiber set and Gen67 Monte Carlo sets as recommended baseline 62.5µm FDDI-grade fiber models for 10GBASE-LRM specifications (Jonathan and John A)

  • Adoption of wavelength scaled Monte Carlo set for OM3 (Petar)

  • Adoption of Connector Transfer Matrix approach for dealing with connectors (John E and Petar)

  • Decision to carry out (low level) development of OM2 models

FDDI and OM3 Fiber Models

- Following models available on web site

  - 108 fiber set for FDDI (support Jonathan Ingham)

  - Monte Carlo fiber sets (Gen54 and Gen67) – assuming Gen67 adopted at this meeting, this should be version used. – NB 500MHz.km truncation agreed (John Abbott)

  - Wavelength scaled Monte Carlo set for OM3 (Petar Pepeljugoski)

- Models being widely used, for example by

  - Acuid, Agilent, Big Bear, Broadcom, Corning, JDSU, Georgia Tech, OFS, Optium, Panduit, Phyworks, RSoft etc

- Model outputs and documentation available at http://www.ieee802.org/3/aq/public/tools/index.html

Connector Transfer Matrix (CTM) for FDDI Grade

- Methodology based on Petar Pepeljugoski's approach for OM3 (already distributed)

- Connector transfer matrices generated by John Ewen and Petar Pepeljugoski

- Allows generation of simulation sets for connectors

- Ewen/Pepeljugoski CTM checked against independently generated Cunningham approach

- Good agreement, even without using exactly the same parameters, indicates calculations not extremely sensitive to these choices

- CTMs available as Matlab and Excel files

- Motion to this meeting