

A decorative border in the top-left corner of the slide, consisting of a vertical stack of colored lines (blue, yellow, red, green) and a horizontal stack of colored lines (red, yellow, green, blue) meeting at a black right-angled triangle.

Report from serial ad hoc

Piers Dawe

Portland, Oregon, July 2001

Issue list: big, stuck or closed

- Open, big issue
 - Technical feasibility
- Open, lesser issues
 - See next slide
- Minor but stuck issues
 - Spectral width measurement standard
 - Calculation of dispersion penalty at 1310 nm serial
- Closed issues
 - Equipment level or component level standard?
 - Review 1310 serial risetime removal proposal

Technical feasibility

- Issue open as of Monday
 - Meeting Monday evening
 - Report by Vipul

Minor but stuck issues

- 1310/1550 spectral width measurement standard
 - Is more appropriate to multimode lasers
 - No change in last two months
- Calculation of dispersion penalty at 1310 nm serial
 - Still under- and over-estimated
 - Error < 0.5 dB
 - Recently criticised by ITU-T SG15
 - No other change in last two months

Closed issues

- Equipment level or component level standard?
 - Equipment level
- Review and refine 1310 serial risetime removal proposal
 - No complaints received
 - New link model in draft available to calculate trade off
 - Now proposed for 850 nm

Issue list: lesser, open

- Open, lesser issues
 - Jitter spec values and test procedure
 - Optical power measurement in network maintenance
 - Need for optical return loss (ORL) specification
 - Test patterns
 - Tx maximum power and Rx overload, LR/LW
 - 850 nm risetime removal
 - Test fibers for 1310 dispersion penalty measurement
 - Reconcile many table numbers with possible errors on the order of 0.5 dB
 - Liaison letter from ITU-T SG15 needs handling

Open issues 1/6

- Jitter spec values and test procedure
 - Need to refine the spec numbers
 - Very hard to relate to SONET jitter specs
 - Addition of sinusoidal jitter is controversial
 - Meant to establish dsensitivity/dJ or to screen for jitter resonance
 - Agreed to substitute 0.05 UI SJ for 0.05 UI DJ, instead of adding the SJ
 - Not sure how accurate and convenient the measurement method is

Open issues 2/6

- Optical power spec and measurement in network maintenance
 - Concern that mean power relates poorly to useful power
 - *Needed input from network equipment vendors, network builders, operators; little received*
 - Complaint from ITU-T SG15 just received
- Need for optical return loss (ORL) spec
 - Doesn't apply on multimode fiber
 - Thought not needed at 1310 nm
 - Agreed that needed at 1550 nm
 - *Our opinion needs review by cable experts*

Open issues 3/6

- Test patterns
 - Ben's group and report
 - Clause 52 incorporates, will edit to tidy up this week
 - *Verification of test patterns needed*
- Tx maximum power and Rx overload, 1310 serial
 - Would be desirable to lower max power if compatible with reasonable Tx tolerancing
 - Detailed calculations under way

Open issues 4/6

- 850 nm risetime removal
 - Propose harder mask to represent faster risetime
 - Still haven't chosen one "needs more work" e.g. MMF modelling
- Test fibers for 1310 dispersion penalty measurement
 - Necessary fibers may not be available
 - Draw out truth table for when special fiber is needed?
 - Thought not much penalty anyway
 - No progress

Open issues 5/6

- Reconcile 1310 serial link attenuation: draft states or implies both 6.5 and 7 dB
 - 7 dB was what we started with
 - Comment resolution this week to recover consistency
- Review table values around stressed and nominal receive sensitivity and receiver eye opening penalty.
 - Under way
- Review table values generally
 - Under way

Open issues 6/6

- New this week: liaison letter from ITU-T SG15 needs handling

Conclusions

- Most of clause is stable
- Still some detail to be chewed through
 - Spec numbers and test procedures

but,

- *Need experimental verification of many things*