Cl **00** *SC* *P* *L* # **108**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Lindsay comments on D0.1 have been resolved or overtaken by events.

Suggested Remedy

Withdraw all unresolved Lindsay comments from the D0.1 ballot process.

Response *Response Status* **O**

Cl **00** *SC* *P* **1** *L* **1** # **69**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

You don't need 'TM's in the page headers. I believe the guidance is, use TM for the trademarked thing the first time it is mentioned, then don't repeat it. I don't know if a project in progress would be trademarked anyway - you could enquire.

Suggested Remedy

Remove the unnecessary 'TM's

Response *Response Status* **O**

Cl **00** *SC* **52.15.2.3** *P* *L* # **89**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

If we are to be really thorough, the PICS major capability for 10GBASE-LR should have its description changed.

Suggested Remedy

Change 'Device supports longwave (1310 nm) operation LAN PHY' to 'Device supports longwave (1310 nm) operation LAN PHY over single-mode fiber'

Response *Response Status* **O**

Cl **00** *SC* **General** *P* **14** *L* **28** # **51**

Swanson, Steven Corning Incorporated

Comment Type **E** *Comment Status* **X**

There is an incosistency in how material is included; in some cases, material is duplicated in Clause 68 and in others a reference is made to text or Figures in other clauses.

Suggested Remedy

Develop consistent methodology and implement. In this particular case, I would rather include the figure for the cabling model here rather than reference Figure 38-7 or Figure 52-14.

Response *Response Status* **O**

Cl **30** *SC* **5.1.1.2** *P* *L* # **76**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

aMAUType list needs another entry

Suggested Remedy

Add entry for 10GBASE-LRM after 10GBASE-LR.

Response *Response Status* **O**

Cl **30B** *SC* **2** *P* *L* # **77**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

TypeValue list needs another entry

Suggested Remedy

Add entry for 10GBASE-LRM after 10GBASE-LR.

Response *Response Status* **O**

Cl **44** *SC* **1.4.4** *P* *L* # **67**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Need to extend table 44-1. Need to extend the following sentence 'The 10GBASE-R family of physical layer implementations is composed of 10GBASE-SR, 10GBASE-LR, and 10GBASE-ER.'

Suggested Remedy

Add additional row and column to table 44-1. Change sentence to '... 10GBASE-SR, 10GBASE-LRM, 10GBASE-LR, and 10GBASE-ER.'

Response *Response Status* **O**

Cl **45** *SC* **2.1.10** *P* *L* # **92**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Table 45-11 10G PMA/PMD Extended Ability register bit definitions This table needs extending to advertise 10GBASE-LRM PMA/PMD ability.

Suggested Remedy

Extend the register set in table: 1.11.15:2 Reserved 1.11.1 10GBASE-LRM ability

Response *Response Status* **O**

Cl **45** *SC* **2.1.6.1** *P* *L* # **91**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Table 45-7 10G PMA/PMD control 2 register bit definitions This table may need extending to control a 10GBASE-LRM PMA/PMD type. As the 3 bits have been used up with 8 PMD types, one could define bits 1.7.2:0 the same for LRM as they are for LR, and set 1.7.3 to 1.

Suggested Remedy

Extend register set in table per comment. Change first sentence of text to '...using bits 3 through 0.'

Response *Response Status* **O**

Cl **68** *SC* **1** *P* **2** *L* **28** # **84**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

Fuzzy pictures, filesize bloat.

Suggested Remedy

Replace with the proper ones and/or adjust distiller settings.

Response *Response Status* **O**

Cl **68** *SC* **10.1** *P* **16** *L* **11** # **88**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

'can by found' should be:

Suggested Remedy

can be found

Response *Response Status* **O**

Cl **68** *SC* **10.3.6** *P* **17** *L* **27** # **90**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

52.15.3.11 does not agree with 68.7. And you can combine 68.10.3.6 and 68.10.3.7 as you have combined the normative text in 68.7.

Suggested Remedy

Combine 68.10.3.6 and 68.10.3.7. Contents one table with just three items, I think.

Response *Response Status* **O**

Cl **68** *SC* **4.1** *P* **3** *L* **18** # **49**

Swanson, Steven Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial

Suggested Remedy

Modify first sentence to read ""....is standardized at test points TP2 and TP3 as shown in Figure 68-2.""

Response *Response Status* **O**

Cl **68** *SC* **4.3** *P* **3** *L* **54** # **68**

Dawe, Piers — Agilent

Comment Type **E** *Comment Status* **X**

Redundant words presumably copied from 68.4.2. Compare 52.4.3.

Suggested Remedy

In 68.4.3, delete 'to the MDI according to the optical specifications in this clause.' (In 68.4.2, don't delete the same words.)

Response *Response Status* **O**

Cl **68** *SC* **4.3** *P* **3** *L* **54** # **50**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial; redundant text.

Suggested Remedy

Delete ""....to the MDI according to the optical specifications in this clause.""

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **10** # **72**

Dawe, Piers — Agilent

Comment Type **E** *Comment Status* **X**

Missing full stop

Suggested Remedy

45.2.1.9.5.

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **13** # **52**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Incorrect reference.

Suggested Remedy

Replace ""...10GBASE-R..."" with ""...10GBASE-LRM...""

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **22** # **110**

Weiner, Nick — Phyworks

Comment Type **T** *Comment Status* **X**

Following Piers's observation, last time, that FAIL OMA need not be so small, I suggest that FAIL OMA can be 10dB smaller than OK OMA.

Suggested Remedy

Change Receive Conditions entry, for FAIL to ""Input optical power in OMA < Receiver power in OMA (min) in Table 68-4 - 10dB""

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **32** # **54**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial

Suggested Remedy

Replace ""...must..."" with ""...shall...""

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **37** # **55**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial

Suggested Remedy

Modify sentence to read: ""...amplitude of the modulation of the optical signal and implementations that respond to the average optical power of the modulated optical signal.""

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **6** # **73**

Dawe, Piers — Agilent

Comment Type **E** *Comment Status* **X**

Gratuitous capitals. We should follow the style guide, not just precedent.

Suggested Remedy

'Signal Detect' should be 'signal detect' (more than once).

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **7** # **70**

Dawe, Piers Agilent

Comment Type **E** *Comment Status* **X**

If PMD_SIGNAL.indicate is a function with SIGNAL_DETECT its subject, then would there be no space between them: example log(x).

Suggested Remedy

Remove space in 'PMD_SIGNAL.indicate (SIGNAL_DETECT)'.

Response *Response Status* **O**

Cl **68** *SC* **4.4** *P* **4** *L* **8** # **71**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Overdose of shalls. Compare 52.4.4.

Suggested Remedy

Change to 'PMD_SIGNAL.indicate is intended to be an indicator ...'.

Response *Response Status* **O**

Cl **68** *SC* **5** *P* **5** *L* **42** # **93**

Jaeger, John Big Bear Networks

Comment Type **T** *Comment Status* **X**

The operating range specified for the installed base of 62.5um multimode fiber does not adequately satisfy the market requirements. Based upon previous technical material presented within the Task Force and the recentadoption of the FDDI-grade Monte Carlo & 108 fiber sets, we can improve the industry acceptance of the PMD by specifying a longer operating distance.

Suggested Remedy

Change the 62.5um operating range to: '0.5 to 300'

Response *Response Status* **O**

Cl **68** *SC* **5.1** *P* **6** *L* **11** # **74**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

An RMS spectral width of 5 nm is much wider than any healthy laser emits, and could hypothetically give rise to a MPN penalty of ~0.2 to 0.3 dB at 220 m. We can eliminate the great majority of this at no cost.

Suggested Remedy

Change to 4 nm. Could go to e.g. 3.2 nm for negligible cost.

Response *Response Status* **O**

Cl **68** *SC* **5.1** *P* **6** *L* **15** # **75**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Suggested OMA minimum of -4.5 dB still seems appropriate. The main consideration here is transmit power tolerancing, which for typical to low extinction ratios is determined by the maximum MEAN power and the minimum OMA. A range of at least 5 dB is required for a cost effectiveness. However, the way of measuring signal strength can be improved. This relates to the study of TP2 waveform quality parameter.

Suggested Remedy

Insert new row for lower limit of metric of useful signal strength. Make the OMA minimum informative, value -4.5 dBm. Remove editor's note.

Response *Response Status* **O**

Cl **68** *SC* **5.1** *P* **6** *L* **35** # **78**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

The currently proposed requirements for a good optical launch have become less optimum as more is learnt about the fibres. Almost any restricted launch seems to have merit; an overfilled launch still seems a bad choice; an extremely well defined launch is pointless as the connectors degrade the definition. And specifically, we should consider center launch, especially for 50 um.

Suggested Remedy

Consider a definition of partial filling. Is numerical aperture any good for this?

Response *Response Status* **O**

Cl **68** SC **5.1** P **8** L **15** # **97**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Stressed eye OMA should reflect min Tx OMA, passive losses, and Consequent penalty. All other stresses are built into the test signal.

Suggested Remedy

Change to -6.6 dBm.

Response *Response Status* **O**

Cl **68** SC **5.1** P **8** L **18** # **98**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

SJ frequency is not defined. 802.3ae used a max frequency of 10x of actual CDR corner frequency. Common CDRs may use 4 MHz, but I expect others may be up to 8 MHz. 80 MHz may push limits of some test equipment, so a compromise is proposed.

Suggested Remedy

Use 60 MHz.

Response *Response Status* **O**

Cl **68** SC **5.1** P **8** L **20** # **99**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

SJ amplitude is not specified. I believe its purpose is to emulate uncorrelated clock jitter, not DDJ. In looking at some 10G electrical specs (XFP and CEI), it seems that non-DDJ of up 0.3 UI pk-pk can be a typical limit. Assuming a crest factor of approx 9 (mixture of some DJ and RJ), then the rms value is 0.033 UI rms. The crest factor for SJ is 2.828, such that SJ with an equivalent amount of rms jitter would be approx 0.1 pk-pk.

Suggested Remedy

Use 0.1 UI pk-pk. Other clock jitter in the test system should be minimized. The 0.1 UI value is for SJ and should not be compensated (reduced) due the presence of other jitter.

Response *Response Status* **O**

Cl **68** SC **5.1** P **8** L **24** # **100**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Although the RIN and MN values are subject to change, the TP3 group has determined a suitable method that should be adopted into the document. A RIN method typically does not actually measure noise spectral density. Flatness is assumed there and is specified elsewhere for this test, so a simple overall rms noise measurement is sufficient.

Suggested Remedy

Use rms noise value (based on 0.9 dB) = OMA/24.2. For a calibration method, I propose transmitting a square wave with the ISI turned off. Measure the OMA with the method defined in clause 52. With the Bessel Thomson 7.5 GHz filter in place, measure the rms noise with a narrow (0.01 UI wide) histogram on the logic one level, and adjust the noise level until the desired rms value is obtained. At least 1000 hits should be counted in the histogram. It is allowed to compensate for noise in the measurement system (O/E, scope, etc.).

Response *Response Status* **O**

Cl **68** SC **5.1** P **8** L **32** # **109**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Information for specs and method related to lindsay_02_0904 are missing.

Suggested Remedy

See separate document [lindsay_1_1104]: TP2 specs and method for D0.2 comments.doc.

Response *Response Status* **O**

Cl **68** SC **5.2** P **8** L **23** # **114**

Weiner, Nick Phyworks

Comment Type **T** *Comment Status* **X**

Static stressed received test in Table 68-4. Noise density: OMA ratio specified as parameter. Value TBD. Expressions and curves presented by Lew, Tom and myself indicate that -22dBe noise power: OMA power is appropriate. Assuming appropriate measurement bandwidth to be 7.5GHz, the Noise density: OMA ratio value should be -121dB/Hz.

Suggested Remedy

Noise power: OMA ratio value to be -121dB/Hz. Add footnote to specify calibration using o/e converter, 7.5GHz BT filter and expression Noise power: OMA ratio = 20.log(noise power/modulation power.filter bandwidth). Also that this ratio applies when the ISI generator is set to the identity transfer function.

Response *Response Status* **O**

Cl **68** SC **5.3** P **9** L **10** # **115**

Weiner, Nick Phyworks

Comment Type **E** *Comment Status* **X**

Table 68-5 includes editor's notes in the first two rows, proposing new wording.

Suggested Remedy

Accept the suggestions made in the editors notes in the first two rows of Table 68-5.

Response *Response Status* **O**

Cl **68** SC **5.3** P **9** L **11** # **101**

Lindsay, Tom ClariPhy Communicati

Comment Type **E** *Comment Status* **X**

I agree with editor's suggestions.

Suggested Remedy

Accept editor's recommendation. This remedy is also recommended for his note in line 13 of the same table.

Response *Response Status* **O**

Cl **68** SC **5.3** P **9** L **17** # **80**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Per D0.1#19, a dynamic penalty spec of <=0.5 dB would be very expensive and inaccurate to measure to, and should not be a separate item anyway. That being so, it becomes one of those 'below the surface' penalties that are wholly within the receiver and that the standard doesn't quantify. So it wouldn't appear in the optical power budget.

Suggested Remedy

In table 68-5, delete the row 'Receiver dynamic adaptation budget'. Recalculate the total.

Response *Response Status* **O**

Cl **68** SC **5.3** P **9** L **21** # **81**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Petar has shown that modal noise is a strong function of launch offset, and that for many offsets it is significantly smaller than 0.5 dB. Two ways to spend this benefit are: give it to the receiver, or relax the transmitter RIN spec.

Suggested Remedy

Reduce allocation for modal noise penalty to whatever is appropriate for launch. Either, adjust total and 'Simple stressed receiver sensitivity' (table 68-4) in step or, relax RIN spec in table 68-3 to keep the sum around 0.9 dB.

Response *Response Status* **O**

Cl **68** SC **6** P **9** L # **96**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

A definition and measurement method for OMA is required.

Suggested Remedy

Use the low frequency square wave definition and method per 802.3ae, clause 52. For TP3 calibration, the square wave pattern will be defined as 10 ones and 10 zeros, repetitive. This test method is not unique to Tx or Rx and should be at the same level as Extinction ratio and the Tx & Rx test headings.

Response *Response Status* **O**

Cl **68** SC **6.1** P **7** L **15** # **111**

Weiner, Nick Phyworks

Comment Type **T** *Comment Status* **X**

Test patterns for TP2 and TP3 compliance tests to be specified.

Suggested Remedy

Table to include enries for: RMS Spectral width, OMA and Extinction Ratio, Average launch power and Transmitted eye or waveform (as selected).

Response *Response Status* **O**

Cl **68** *SC* **6.1** *P* **8** *L* **20** # **79**

Dawe, Piers — Agilent

Comment Type **T** *Comment Status* **X**

There has been some debate about how big the clock sinusoidal jitter amplitude should be. Unlike in 802.3ae, we aren't expecting to need to add clock jitter to make up the jitter specified if the filter doesn't make enough; this time the ISI generator generates a great deal of jitter! There would be a small amount of true clock jitter to be emulated but that could be just 1-2 ps RMS. So the sine jitter to be applied here might be on the order of 0.02 UI pk-pk.

Suggested Remedy

If we can't pin this number down this time, make it TBD <=0.05 UI.

Response *Response Status* **O**

Cl **68** *SC* **6.2** *P* **7** *L* **19** # **112**

Weiner, Nick — Phyworks

Comment Type **T** *Comment Status* **X**

Need OMA and Extinction Ratio definitions and measurement methods.

Suggested Remedy

Change 68.6.2.sub-clause heading to ""OMA and Extinction Ratio measurements"", with text ""52.9.5 defines P1 and P0 as mean optical power for logic ""1"" and logic ""0"", respectively, and specifies how these are measured. OMA is given by P1 - P0. Extinction ratio is given by 10.log(P1/P0).

Response *Response Status* **O**

Cl **68** *SC* **6.2** *P* **7** *L* **19** # **86**

Dawe, Piers — Agilent

Comment Type **T** *Comment Status* **X**

re need for OMA measurement method: I think we can agree that it would be less confusing to keep the same definition of OMA across all 10G optical Ethernet, although EFM deliberately has a different definition. This does not mean that what 10G calls OMA is something we want to measure at all! At present, I believe it is likely be used as part of a stressed receiver calibration. If we are really concerned, it might be useful for measuring a strong transmitter (to avoid overload situations), although there's still the problem that a transmitter in mission mode emits a different pattern to that required by the method of 52.9.5. I don't believe this OMA is helpful for specifying a lower power transmitter and it is not appropriate for an optical signal in service (wrong pattern).

Suggested Remedy

Insert at the beginning of the subclause: 'For the purposes of this clause, optical modulation amplitude (OMA) is defined as in 52.9.5.

Response *Response Status* **O**

Cl **68** *SC* **6.2** *P* **7** *L* **21** # **113**

Weiner, Nick — Phyworks

Comment Type **E** *Comment Status* **X**

For clarity, separate ""reletionship between OMA and ER"" from OMA and ER measurement methods.

Suggested Remedy

Create new sub-clause ""Relationship between OMA and Extinction Ratio"" to follow ""OMA and Extinction measurements"" sub-clause. Sub-cluase to conatin current 68.6.2. content (other than the editor's note).

Response *Response Status* **O**

Cl **68** *SC* **6.2** *P* **7** *L* **47** # **85**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Figure 68-3 should be referred to where it first applies. It illustrates the transmitter specification as well as the relationship between OMA, average power and extinction ratio. There's also the little inconsistency (not a bug, problem or inaccuracy) that by using different patterns for defining OMA and extinction ratio (and assuming that average power is pattern independent), the diagram is not quite true. This point is made in 58.7.6, which we refer to.

Suggested Remedy

Move the figure, and copy and modify (*** shows the modifications) its calling sentence 'Figure 68–3 illustrates the region of transmitter compliance and also the ***approximate*** relationship between OMA, average power and extinction ratio.' into 68.5.1 Transmitter optical specifications. In this subclause, refer to the figure again 'Figure 68–3 illustrates the ***approximate*** relationship between OMA, average power and extinction ratio.'

Response *Response Status* **O**

Cl **68** *SC* **6.3** *P* **9** *L* **29** # **82**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

For extinction ratio specification and measurement procedure, I strongly believe that, whatever we decide for signal strength measurement, we should use the 'realistic pattern' approach taken in existing 10G optical Ethernet, Ethernet in the First Mile, and all SONET. This method can be implemented with a transmitter in mission mode, is familiar, and gives a measure that is more relevant of the usable signal than the alternative 'square wave' method. I would say 'just refer to 52.9.4' but various improvements and clarifications were spotted during EFM's development, hence the text proposed in comment D0.1#45. The sentence about test receiver frequency response might be modified by choice of TP2 waveform specification. But I propose we include it for now and review in a future meeting.

Suggested Remedy

Implement comment D0.1#45.

Response *Response Status* **O**

Cl **68** *SC* **6.3** *P* **9** *L* **29** # **106**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

We need a definition and measurement method for extinction ratio (ER). ER is not a critical parameter for LRM, so I am not going to drive one method over another.

Suggested Remedy

Option1 - use the low frequency square wave definition used for OMA per 802.3ae, clause 52, to determine P0 and P1. Otherwise, follow the method given in clause 52. For TP3 calibration, the square wave pattern will be defined as 10 ones and 10 zeros, repetitive.
Option2 - use the method given in clause 58.

Response *Response Status* **O**

Cl **68** *SC* **6.4.1** *P* **9** *L* **38** # **83**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Even if we can't decide yet if we do/do not like eye specifications, let us build out what we are considering.

Suggested Remedy

Delete 'Test procedure TBD. 52.9.7 and 58.7.8 have been suggested as references' and insert text per D0.1#22-24.

Response *Response Status* **O**

Cl **68** *SC* **6.4.2** *P* **10** *L* **22** # **59**

Swanson, Steven Corning Incorporated

Comment Type **TR** *Comment Status* **X**

Launch specifications unclear.

Suggested Remedy

Define launch conditions that the standard will support. The presence of encircled flux spefications suggests that center launch is not included.

Response *Response Status* **O**

Cl **68** *SC* **6.5** *P* **11** *L* # **107**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Need a low frequency jitter test.

Suggested Remedy

Propose 5 UI at 40 kHz sine jitter test condition.Use current Stressed eye generator figure but remove Gaussian noise and ISI generator. Keep all else as is. Use words for subclause 68.6.5.1 (modified by another comment) to specify requirements about BER, etc.

Response *Response Status* **O**

Cl **68** *SC* **6.5** *P* **11** *L* **43** # **102**

Lindsay, Tom ClariPhy Communicati

Comment Type **E** *Comment Status* **X**

If we stay with sine jitter, then this may be okay, but even then, phase modulation conveys the idea better.

Suggested Remedy

Change from frequency modulation to phase modulation. Also search for other instances of this in the document (such as in paragraph 68.6.5.1).

Response *Response Status* **O**

Cl **68** *SC* **6.5.1** *P* **12** *L* **31** # **103**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

The words are true, but the purpose of the test is not to determine the actual sensitivity, but rather to assure that the Rx meets BER under the stressed conditions.

Suggested Remedy

Reword paragraph to ""A BER of better than 1E-12 shall be achieved under the combination of the Static stressed receiver sensitivity OMA specified in Table 68-4, with each of the ISI ...""

Response *Response Status* **O**

Cl **68** *SC* **6.5.2** *P* **12** *L* **35** # **104**

Lindsay, Tom ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

What have we decided to do with this clause?

Suggested Remedy

Abandon this subclause unless it is deemed essential.

Response *Response Status* **O**

Cl **68** *SC* **6.5.2** *P* **12** *L* **38** # **95**

King, Jonathan Big Bear Networks

Comment Type **T** *Comment Status* **X**

Description of dynamic test should specify the rate of variation of the impulse response

Suggested Remedy

Amend second sentence to: Static ISI is applied, and then dynamically changing ISI is applied at a rate and magnitude as specified in Table 68-4, and with reference to the impulse response of Figure 68-7.

Response *Response Status* **O**

Cl **68** *SC* **6.5.2** *P* **8** *L* **15** # **116**

Weiner, Nick Phyworks

Comment Type **T** *Comment Status* **X**

Table 68-4. The stressed receiver sensitivity test is annotated with an editor's notes to indicate that it has not been adopted for inclusion. The static stressed receiver test has now received considerable attention and should be adopted.

Suggested Remedy

Remove editor's note from Static received sensitivity test in Table 68-4 and also from 68.6.5. New editor's note in in 68.6.5.2 to indicate that the dynamic penalty test has not been adopted.

Response *Response Status* **O**

Cl **68** *SC* **6.5.2** *P* **8** *L* **32** # **94**

King, Jonathan — Big Bear Networks

Comment Type **T** *Comment Status* **X**

Table 68-4 needs to specify the rate of variation of the impulse response, as well as the impulse response bounds for the dynamic ISI test.

Suggested Remedy

Add line to table Frequency of variation of dynamic ISI ..... TBD..... Hz

Response *Response Status* **O**

Cl **68** *SC* **6.5.3** *P* **13** *L* **25** # **60**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Clarification needed.

Suggested Remedy

Suggest defining the limits on a ""...linear electrical/optical converter"" The same text appears on Page 11, line 48.

Response *Response Status* **O**

Cl **68** *SC* **6.5.3** *P* **13** *L* **26** # **61**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Clarification needed.

Suggested Remedy

Sentence states: ""Other signal impairments, such as rise times, jitter and RIN should be negligible."" We need to define negligible.

Response *Response Status* **O**

Cl **68** *SC* **7** *P* **14** *L* **1** # **117**

Weiner, Nick — Phyworks

Comment Type **E** *Comment Status* **X**

Clarity may be improved by slight re-wording and new subclause

Suggested Remedy

Accept suggestions made in editor's notes on lines 1 and 6 of page 14.

Response *Response Status* **O**

Cl **68** *SC* **7.1** *P* **14** *L* **12** # **62**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial.

Suggested Remedy

Delete ""...Instalation"" at end of text.

Response *Response Status* **O**

Cl **68** *SC* **8** *P* **14** *L* **31** # **118**

Weiner, Nick — Phyworks

Comment Type **E** *Comment Status* **X**

Table 68-6 and Table 68-5 both include the fiber loss and connector loss values. May avoid the duplication by accepting suggestion made in editor's note.

Suggested Remedy

Accept the suggestion made in the editor's note on page 14, line 31.

Response *Response Status* **O**

Cl **68** *SC* **8** *P* **14** *L* **31** # **63**

Swanson, Steven — Corning Incorporated

Comment Type **E** *Comment Status* **X**

Editorial

Suggested Remedy

Modify first sentence to read: ""The channel insertion loss is given in Table 68-6.""

Response *Response Status* **O**

Cl **68** *SC* **8** *P* **14** *L* **45** # **105**

Lindsay, Tom — ClariPhy Communicati

Comment Type **T** *Comment Status* **X**

Not sure what is happening to this table, but if connector losses remain, the value should follow other instances.

Suggested Remedy

Use 1.5 dB.

Response *Response Status* **O**

Cl **68** *SC* **8** *P* **14** *L* **47** # **87**

Dawe, Piers Agilent

Comment Type **T** *Comment Status* **X**

Chromatic dispersion can't be 'TBD' if we are intending to work on existing cabling!

Suggested Remedy

Replace 'TBD' with the real info or a reference thereto. Is this best quoted in ps/nm or ps/nm/km?

Response *Response Status* **O**

Cl **68** *SC* **9.1** *P* **15** *L* **1** # **65**

Swanson, Steven Corning Incorporated

Comment Type **E** *Comment Status* **X**

Incorrect title.

Suggested Remedy

Change title to read: ""68.9.1 Optical fiber cable""

Response *Response Status* **O**

Cl **68** *SC* **9.1** *P* **15** *L* **3** # **66**

Swanson, Steven Corning Incorporated

Comment Type **E** *Comment Status* **X**

Incorrect reference.

Suggested Remedy

Reword to read: ""the fiber optic cable shall meet the requirements of IEC 60794-2-11,...""

Response *Response Status* **O**

Cl **68** *SC* **New** *P* **9** *L* **28** # **58**

Swanson, Steven Corning Incorporated

Comment Type **T** *Comment Status* **X**

No jitter specifications are noted.

Suggested Remedy

Add jitter specifications for 10GBASE-LRM.

Response *Response Status* **O**

Cl **68** *SC* **Table 68-1** *P* **4** *L* **22** # **53**

Swanson, Steven Corning Incorporated

Comment Type **T** *Comment Status* **X**

Table suggestions.

Suggested Remedy

""Input optical power in OMA <-30 dBm"" should read ""Input_optical_power in OMA <-30 dBm"" ""Compliant 10GBASE-R input signal with optical power in OMA >Receiver power in OMA (min) in Table 68-4"" should read ""Compliant 10GBASE-LRM input signal with optical power in OMA >Receiver sensitivity (max) in OMA in Table 68-4""

Response *Response Status* **O**

Cl **68** *SC* **Table 68-2** *P* **5** *L* **37** # **56**

Swanson, Steven Corning Incorporated

Comment Type **T** *Comment Status* **X**

EDC is intended to support the installed base of FDDI grade fiber; FDDI is specified at 1300nm on 62.5um fiber.

Suggested Remedy

Delete multimode fiber type column.Delete last two rows. Delete footnote. Modify bandwidth column to read: ""Minimum overfilled modal bandwidth at 1300 nm (MHz.km)"" Replace ""160/500 and 200/500"" with ""500""

Response *Response Status* **O**

Cl **68** *SC* **Table 68-5** *P* **9** *L* **6** # **57**

Swanson, Steven Corning Incorporated

Comment Type **T** *Comment Status* **X**

Title and content needs revised.

Suggested Remedy

Change title to read: ""Table 68-5 - 10GBASE-LRM link power budget"" Include the following parameters as row entries: Power budget Operating distance Channel insertion lossAllocation for penalties

Response *Response Status* **O**

Cl **68** *SC* **Table 68-6** *P* **14** *L* **45** # **64**

Swanson, Steven Corning Incorporated

Comment Type **TR** *Comment Status* **X**

Wrong connector insertion loss.

Suggested Remedy

Connector insertion loss should read 1.5 dB. If the editor's comment to refer to Table 68-5 is not accepted, we should add channel insertion loss to this table.

Response *Response Status* **O**