Cl **68** *SC* **68.4.1** *P* **25** *L* **52** # 1031

Swanson, Steve

Comment Type **TR** *Comment Status* **R**

Since FDDI fiber is not specified to support a center launch (and current analysis suggests that greater than 60% of the links would fail the center launch), the IEEE Draft P802.3aq should require the mode-conditioning patch cord per 38.11.4 as the specified launch. This is the same launch that has been previously specified for 1000BASE-LX on multimode fiber and 10GBASE-LX-4 on multimode fiber in the current Ethernet standard. If the Working Group elects to include the center launch, it should be included only as part of an informative annex.

SuggestedRemedy

Replace: ""The optical launch condition at TP2 is either the preferred launch or the alternative launch (at the userÆs choice), as specified in 68.5.1. A compliant PMD shall support both options. The launch is selected by using either a single-mode fiber offset-launch mode-conditioning patch cord or a regular multimode fiber patch cord inserted between the MDI and TP2, consistent with the media type.""

With: ""To ensure that the requirements of 68.5.1 are met, the 10GBASE-LRM transmitter output shall be coupled through a single-mode fiber offset-launch mode-conditioning patch cord as defined in 38.11.4""

Proposed Response *Response Status* **U**

REJECT.
This topic has been debated at length during previous revision cycles and there is clear consensus within the Task Force in favour of using both Offset Launch and Center Launch for 62.5um and 50um OM2 fiber types.

Comments, and voting results, on this topic during Draft 1.0 cycle are as follows:

Comment 52 - Include both offset and centre launch encirlced flux specs for 62.5um MMF - For: 31; Against: 0; Abstain: 6

Comment 56 - Include both offset and centre launch encirlced flux specs for 50um, OM2 MMF - For: 30; Against: 0; Abstain: 10

Yes:25
No: 6
Abstain: 8

Cl **68** *SC* **68.5.1** *P* **31** *L* **34** # 1047

Swanson, Steve

Comment Type **TR** *Comment Status* **R**

Despite the current thinking that forcing the end user to experiment with two launches to achieve a functional link is acceptable, the standard should specify what is required to guarantee an operable link. Users may elect to try alternative launches but it is unacceptable to encourage it in the normative part of the standard.10GBASE-LRM is no different than 1000BASE-LX and 10GBASE-LX-4 in that all three PMDs are intended to support the installed base of multimode fiber with a transmitter that the fiber is not designed to support. Both 1000BASE-LX and 10GBASE-LX-4 REQUIRED the mode-conditioning patch cord to ensure that the operating range could be met; there is no reason 10GBASE-LRM should be any different.

SuggestedRemedy

Change ""Optical launch for 62.5 Ám fiber:"" to read ""Optical launch for OM1 and 160/500 62.5 Ám fiber:"" to be consistent with text used for OM2 fiber.

Delete ""Preferred for both OM1 and OM2 fibers.

Delete ""Encircled flux for alternative launch"" on lines 36 and 37 for 62.5um fiber and on lines 41 and 42 for OM2, 50um fiber as well as the associated specifications in the second column for both OM1 and OM2 fibers.

Proposed Response *Response Status* **U**

REJECT.
See response to comment 1031.
Yes: 25
No: 5
Abstain: 7

Cl **68** *SC* **68.5.1** *P* **36** *L* **16** # 1050

Dudek, Mike

Comment Type **TR** *Comment Status* **R**

Table 68-4. This is further clarification of the comment 117 from draft 2.0 that had a lack of consensus.

What matters to the Receiver is the signal to noise ratio of the equalized signal (plus a maximum amount of distortion). The existing specification assumes OMA of the Tx will represent this quantity well, however this has been found not to be true. A more accurate measure of this quantity is (OMA - TWDP) and this quantity also has the advantage that inaccuracies in the measurement of OMA cancel out. We should use this more accurate measurement for the minimum required output signal amplitude. Also there is no need to restrict the average optical power so tightly.

SuggestedRemedy

Table 68-4 page 36.
Change Launch power in OMA min to -9.5dBm +TWDP. (but no less than -5.5dBm)
Change Average power min to -7.5dBm

Change Fig 68-11 (page35) to the accompanying figure. (without the differentiation of colors which are included to show the change from the existing figure).

Table 68-5 page 37.
Change Lowest power in OMA to -7.5dBm
Change Lowest Average power to -9.5dBm.

Proposed Response *Response Status* **U**

REJECT.
TWDP has not been shown to provide an approximation of the power penalty experienced when using a real receiver. The committee would wish to see evidence that the TWDP does provide this approximation before agreeing to the proposed change.
Yes: 16
No: 2
Abstain: 2

Cl **68** *SC* **68.5.3.1** *P* **32** *L* **24** # 1066

Dallesasse, John

Comment Type **TR** *Comment Status* **R**

Clause 68.5.3.1 is still very weak. Link adaptation time and adaptation penalties have not been specified by this document, and the body of work to support the assertion that the time variation of the channel is limited to 10 Hz, while a good starting point, is very thin. This is a complex topic that cannot be dismissed based upon a fairly limited data set. If the group is not willing to specify a test for adaptation time, it needs to at least highlight that the PHY vendor should provide a specification for it. The approach suggested below is consistent with what has been done in the past, such as in Clause 52.11, where manufacturers are encouraged to provide a specification defining the range of environmental conditions over which normative requirements are met.

SuggestedRemedy

Add sentance to end of section as follows:

""It is further recommended that manufacturers indicate in the literature associated with the PHY the minimum adaptation time over which the normative specifications in this clause are met.""

Proposed Response *Response Status* **U**

REJECT.
The committee believes that stronger statements on dynamic performance, beyond that already in Clause 68, are not required and are beyond the scope of Clause 68.
Yes: 21
No: 5
Abstain: 6

Cl **68** *SC* **68.6.9.1** *P* *L* # 1116

Dallesasse, John

Comment Type **TR** *Comment Status* **R**

See Paul Kolesar's comment #333 in recirculation package.

SuggestedRemedy

Per Kolesar's comment #333, or George's comment 369.

Proposed Response *Response Status* **U**

REJECT.

This is a proposal to reconsider a resolved comment.

21st July 2005
Motion to reconsider Draft 2.0 comment 333 (here as 1117)
Moved: Paul Kolesar
Seconder: John Abbott
Motion withdrawn by mover and seconder.