

CI 74 SC 74.1 P113 L15 # 60
Dawe, Piers J G Independentant

Comment Type TR Comment Status R

"The FEC sublayer can be placed in between the PCS and PMA sublayers" contradicts new text in 74.4.

SuggestedRemedy

After this sentence, insert "For 40GBASE-R and 100GBASE-R, the FEC sublayer can be placed between two PMA sublayers."

Response Response Status U

REJECT.

The text reads fine as is.

As the commenter points out placing the FEC between two PMA sublayers is explained appropriately in 74.4.

Adding the proposed text in 74.1 might confuse the reader.

CI 80 SC 80.3.2 P139 L27 # 71
Dawe, Piers J G Independentant

Comment Type TR Comment Status R

PMD:, for primitives issued on the interface between the PMD sublayer and the PMA sublayer called the PMD service interface.
b) PMA:, for primitives issued on the interface between the PMA sublayer and the PCS (or the FEC) sublayer called the PMA service interface.

SuggestedRemedy

PMD:, for primitives issued on the interface between the PMD sublayer and *a* PMA sublayer...
b) PMA:, for primitives issued on the interface between *a* PMA sublayer and the PCS,FEC or another PMA sublayer...

Response Response Status U

REJECT.

The above comment is made against unchanged text.

The text as it is written is technically correct and from the context it is clear that it refers to the PMA sublayer adjacent to the PMD sublayer.

CI 83A SC 83A.3.3 P399 L40 # 35
Petrilla, John Avago Technologies

Comment Type TR Comment Status A

There does not seem to be a hit ratio defined for the Tx or Rx eye masks in 83A or 83B. Note that a requirement for operation with a BER better than 1E-12 is not sufficient. For example clause 86 has the same BER requirement but uses 5E-5 hit ratios for eye mask tests. The hit ratio requirement for a eye mask should be explicit to reduce confusion.

SuggestedRemedy

Add the appropriate hit ratio requirement, e.g. 1E-5 or 1E-12, to Tables 83A-1 and 83A-2 or to 83A.3.3.5 and 83A.3.4.2 or 83A.5. Repeat in 83B.

Response Response Status W

ACCEPT IN PRINCIPLE.

Modify 83A.5
"Jitter values and eye masks are specified for BER 10-12."

The required hit ratio to verify is left to the implementer.

CI 83A SC 83A.5.2 P415 L23 # 110
Dawe, Piers J G Independentant

Comment Type TR Comment Status R

"The XLAUI/CAUI jitter tolerance test setup in figure 83A-15 or its functional equivalent". Functional specs are in e.g. 83.5 Functions within the PMA, 85.7 PMD functional specifications, and they are mostly about bits and bytes and topology. Here, we need the right analog, electrical behaviour.

SuggestedRemedy

Change "functional" to "electrical".

Response Response Status U

REJECT.

Functional is used in the context of testing (see 85.8.3.4 test fixtures for example). Functional is an appropriate discription for this figure illustration which embodies more than just electrical specifications.

Cl **83A** SC **83A.6.1** P**416** L**42** # **191**
Dawe, Piers J G Independant

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

Although "consult the relevant ... regulations to ensure compliance" might be good advice, network safety doesn't come into XLAUI/CAUI because XLAUI/CAUI isn't part of a network. There has to be a PMD (with its own environmental specifications) between the XLAUI/CAUI and any network.

SuggestedRemedy

Delete the heading "83A.6.2 Network safety". Also in 83B.

Response Response Status **U**

REJECT.

As commentor suggests, this is good advice. 1 connector can be used in XLAUI/CAUI making. It is an appropriate to point the user to safety standards for any physical instantiations

Cl **83B** SC **83B.2.2** P**428** L**10** # **108**
Dawe, Piers J G Independant

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

Following up on D3.0 comment 323: The low frequency jitter tolerance is the same for a receive side host input as for a transmit side input, and at the optical MDI. If the Tx side spec is 4 MHz, a real module might use e.g. up to 8 MHz. Host is allowed to generate 0.42 UI high probability jitter above 4 MHz, and is allowed to generate all of this below 8 MHz. The optical transmitter module is specified against 0.05 UI SJ above 4 MHz. The extra 0.37 UI will break it. There may be a similar issue on the receive side.

SuggestedRemedy

Need to e.g. control the jitter between 4 MHz and 8 MHz to a suitably small amount (which a well-designed host will readily achieve).

Response Response Status **U**

REJECT.

83B nAUI is a chip-to-module interface
PMD jitter requirements are verified at the PMD level. Jitter tolerance for PMDs are also defined in PMD sections. nAUI interface defines associated tolerance requirements.

A vote of the Task Force was taken:

Should the draft be modified to change the jitter requirements as suggested?

Yes 1

No 11

Cl **84** SC **84.7.8** P**240** L**39** # **89**
Dawe, Piers J G Independant

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

84.7.8 and 85.7.8 say "Local loopback shall be provided by the adjacent PMA (see 83.5.8)" (with PICS) while 83.5.8 says "PMA local loopback shall be provided by the PMA adjacent to the PMD for 40GBASE-KR4, 40GBASECR4, and 100BASE-CR10 PMDs." (also with PICS). It is not acceptable for one clause to try to require something of the sublayer of another clause. The other clause (83 in this case) does that. 802.3ap cut a corner and didn't open Clause 51: in this project the PMA clause 83 is open for edit and already has the shall and PICS desired.

SuggestedRemedy

Change "shall be provided" to "is provided" in 84.7.8 and 85.7.8.

Response Response Status **U**

REJECT.

Loopback is mandatory for the PMDs in clauses 84 and 85 and therefore we need the shall statements and associated PICs in these clauses.

In addition, the text was modified by comment 505 against draft 3.0. Comment 505 was extensively discussed by the task force and there was agreement to adopt the current text.

Cl **85** SC **85.11** P**238** L**29** # **175**
Ghiasi, Ali Broadcom

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

It is not clear what is the minimum set of requirement for connecting host SerDes to the MDI contact in Clause 85. Clause 85 allow any connection. Also see comment 267 on D3.0

SuggestedRemedy

Add paragraph under 85.11 describing what is the required minimum connection between host PMD SerDes and the MDI contact. Here is the text: The PMD subclass for 40GBase-CR4 and 100GBase-CR10 must meet requirement of CL73 Autonegotiation which require connecting host lane 0 to PMD lane 0 and meet the transmitter training of 85.8.3.3 where each host lane (TX and RX) be connected to an MDI lane (TX and RX)

Response Response Status **W**

REJECT.

Text is unnecessary as 40GBASE-CR4 and 100GBASE-CR10 are required to support AN clause 73 (see Table-85-1). In addition, Figure 85-2 and Figure 85-19 illustrate source lane to destination lane labeling which are than associated with the MDI contacts/pins in Table-85-13, Table-85-14 and Table 85-15.

CI 85 SC 85.8.3 P262 L39 # 92
Dawe, Piers J G Independant

Comment Type TR Comment Status R

Now that there is a formal definition for it, DDJ is a proper noun. Particularly because the DDJ per definition is not all the jitter that's "data" (pattern) dependent.

SuggestedRemedy

Change "data dependent jitter" to "Data Dependent Jitter" throughout 85.

Response Response Status U

REJECT.

Data dependent jitter usage consistent in clause 85.

85.8.3.8 test method and definition (85-16) sufficiently characterizes meaning of DDJ.

Frequent usage and 52.9.9.2 and 58.7.11.2 has it "data-dependent jitter" (DDJ).
Clause 48 has it "data dependent jitter" (DDJ).

CI 86 SC 86.1 P299 L16 # 97
Dawe, Piers J G Independant

Comment Type GR Comment Status R

Table format doesn't work properly for a PMD clause with two speeds (85 and 86, not a problem for 88). This table takes 14 rows to do a bad job of explaining what the crossed-out Table 86-2 does more clearly in 8 rows. For the future, a clause with three speeds would be even worse. The crossed-out Table 86-2 was adopted for D2.1 in May 09, and has never been commented against (not at D2.1, D2.2, D2.3 or D3.0). D3.0 comment 498 had nothing to do with this table and this change was added very late without proper consideration.

SuggestedRemedy

Change Table 86-1 back to the format in D2.1, D2.2, D2.3 or D3.0, but without the PMD row. If wished, make a similar improvement to Table 85-1.

Response Response Status U

REJECT.

Response to D3.0 comment 498 made the tables consistent by adopting the Table 85-1 format. See http://iee802.org/3/ba/public/jan10/P8023ba-D30-Final_Responses_byID.pdf

See also comment 90 against Table 85-1.

A vote of the Task Force was taken:

Should the draft be modified as per the suggested Remedy?

Yes 1

No 7

CI 86A SC 86A.5.1 P444 L28 # 38
Petrilla, John Avago Technologies

Comment Type ER Comment Status A

This seems to be the only instance of the phrase, "the nPPI connector". The phrase may lead to confusion as some may infer that there's an nPPI connector defined with the document and there is not.

SuggestedRemedy

Change, "These compliance boards are defined to connect generic test equipment to the module and host using the nPPI connector, for test purposes" to "These compliance boards are defined to connect generic test equipment to the module and host for test purposes"

Response Response Status W

ACCEPT.

This comment is out of scope as it does not relate to changes or an unsatisfied negative.

CI 86A SC 86A.5.2 P448 L39 # 40
Petrilla, John Avago Technologies

Comment Type TR Comment Status R

Shouldn't the Pattern entry for J9 jitter be the same as for the J2 entry?

SuggestedRemedy

Repeat the Pattern entry for J2 in J9.

Response Response Status W

REJECT.

Two parameters here (J9 and signal tolerance) and more in the optical PMD clauses, are simply "3 or 5" in case the low-probability tails of a valid 40GBASE-SR4 or 100GBASE-SR10 signal are not reproducible.