

IEEE 802.3by D2.1 25 Gb/s Ethernet 1st Working Group recirculation ballot comments

**Cl 108**    **SC 108.5.2.2**                      **P 106**            **L 25**            # **20136**  
 Trowbridge, Steve                              Alcatel-Lucent

**Comment Type**    **TR**            **Comment Status**    **R**    **OTN, BTI**

Doing rate compensation below the PCS precludes developing an OTN mapping for 25GbE which is PCS codeword transparent.

*SuggestedRemedy*  
 See trowbridge\_3by\_01\_0915.pdf for proposed remedy. The problem can be solved if all of the PMDs have CWMs, none of the PMDs have CWMs, or if no rate compensation is done to insert CWMs (i.e., overclock to insert CWM). Propose to move the rate compensation to the PCS. Rate compensation should similarly be removed from Figure 108-2.

**Response**                                      **Response Status**    **U**

REJECT.

The task force reviewed the cited presentation.

There is no consensus to make the proposed changes. See Motion #4.

See comments 137, 138, 139 and 190.

**Cl 108**    **SC 108.5.2.4**                      **P 108**            **L 1**            # **20137**  
 Trowbridge, Steve                              Alcatel-Lucent

**Comment Type**    **TR**            **Comment Status**    **R**    **OTN, BTI**

Some PMDs having CWMs and others not prevents creating a PCS codeword transparent mapping for 25GbE into OTN which can interconnect any pair of 25GbE PMDs.

*SuggestedRemedy*  
 Propose to move CWM insertion to the PCS. See trowbridge\_3by\_01\_0915.pdf for details. If CWM insertion is moved to the PCS, Figure 108-3 needs to transcode the CWM from four 66B blocks to the 257B format.

**Response**                                      **Response Status**    **U**

REJECT.

The task force reviewed the cited presentation.

There is no consensus to make the proposed changes. See Motion #4.

See comments 136, 138, 139, and 190.

**Cl 108**    **SC 108.5.3.3**                      **P 111**            **L 47**            # **20138**  
 Trowbridge, Steve                              Alcatel-Lucent

**Comment Type**    **TR**            **Comment Status**    **R**    **OTN, BTI**

Some PMDs having CWMs and others not prevents developing a PCS codeword transparent mapping into OTN which can interconnect any pair of 25GbE PMDs.

*SuggestedRemedy*  
 See trowbridge\_3by\_01\_0915.pdf for details. Move CWM removal to the PCS, and replace this text with how to transcode CWM from the 257B format back to four 66B blocks.

**Response**                                      **Response Status**    **U**

REJECT.

The task force reviewed the cited presentation.

There is no consensus to make the proposed changes. See Motion #4.

See comments 136, 137, 139 and 190.

**Cl 108**    **SC 108.5.3.6**                      **P 112**            **L 15**            # **20139**  
 Trowbridge, Steve                              Alcatel-Lucent

**Comment Type**    **TR**            **Comment Status**    **R**    **OTN, BTI**

Having rate compensation below the PCS prevents creating a PCS codeword transparent mapping into OTN which can interconnect any pair of 25GbE PMDs.

*SuggestedRemedy*  
 Move this rate compensation to the PCS and add CWM to all PMDs. See trowbridge\_3by\_01\_0915.pdf.

**Response**                                      **Response Status**    **U**

REJECT.

The task force reviewed the cited presentation.

There is no consensus to make the proposed changes. See Motion #4.

See comments 136, 137, 138, and 190.

IEEE 802.3by D2.1 25 Gb/s Ethernet 1st Working Group recirculation ballot comments

Cl 000 SC 0 P L # 20190  
 Anslow, Pete Ciena

Comment Type TR Comment Status R OTN, BTI

The current draft contains two different variants of 25 Gb/s Ethernet where idle insertion/deletion has to be performed in order to convert from one type to the other (at the OTN will have to do) due to one containing CWMs and the other not. While the exact requirements of the objective: "Provide appropriate support for OTN" are somewhat vague, I do not consider that this has been met.

*SuggestedRemedy*

Add CWMs to all 25 Gb/s Ethernet PHYs as per the proposal in [http://www.ieee802.org/3/by/public/Sep15/trowbridge\\_3by\\_01\\_0915.pdf](http://www.ieee802.org/3/by/public/Sep15/trowbridge_3by_01_0915.pdf)

Response Response Status U

REJECT.

The task force reviewed the cited presentation.

There is no consensus to make the proposed changes. See Motion #4.

See comments 136, 137, 138, and 139.

Cl 112 SC 112.9 P 191 L 34 # 20236  
 Geoff Thompson GraCaSI S.A.

Comment Type TR Comment Status R

The term "channel" used to specify the media is an undefined term within the 802.3 standard.

*SuggestedRemedy*

Please rewrite using the term "link segment" which is precisely defined within 802.3 for precisely this use. (also all other uses within the draft)

Response Response Status U

REJECT.

'Channel' is the term used in the equivalent sections for previous clauses (95, 88, 87, 86, 52).

Consistent with the previously listed clauses, 112.9 says "the term channel is used here for consistency with generic cabling standards".

Changing a previously used term for a single clause might be confusing.

Cl 112 SC 112.10.3 P 193 L 5 # 20237  
 Geoff Thompson GraCaSI S.A.

Comment Type TR Comment Status R

This sub-clause purports to define the MDI but does not do that. It defines the MDI device or MDI connector but not the INTERFACE. It is the interface, not the interface connector which is the MDI.

*SuggestedRemedy*

Change either the title of the sub-clause or the contents so that the title and contents match.

Response Response Status U

REJECT.

The nomenclature and text is consistent with equivalent sections in many other clauses including 95, 88, 87, 86, and 52.

Changing a single clause as suggested might be confusing.

## IEEE 802.3by D2.1 25 Gb/s Ethernet 1st Working Group recirculation ballot comments

Cl 000 SC 0 P1 L1 # 21013  
 Laubach, Mark Broadcom Corporation

Comment Type TR Comment Status A definitions, CC

This comment follows on an unsatisfied R comment #236 against Draft 2.0. Technically 802.3-2015 and almost all prior versions of the 802.3 Ethernet standard defines "channel" in Clause 1 as "In 10BROAD36, a band of frequencies dedicated to a certain service transmitted on the broadband medium". This definition holds true for Clause 11 as well as updated for use in upcoming P802.3bn EPoC Clauses 100, 101, 102, and 100A. (This definition may even hold true for future definitions for optical channels on fiber - however, we'll leave that for their future to determine.). Other clauses including .by, have used "channel" without (errantly) updating the 802.3 definition, creating a technical incorrectness. I think now is the time and opportunity to correct this. The existing definition needs to be maintained (not altered) as the original (for example an "1.") definition, however it is likely prudent to add an addition (for example a "2.") definition as part of the .by draft process, with cross references to the .by clauses of interest. Through maintenance, existing clauses can be added to the additional definition list of cross references, as appropriate.

*SuggestedRemedy*

Coordinate with the IEEE Editor(s) for best approach, and also coordinate with the P802.3bn Chief Editor to avoid editorial instruction collisions. Suggestion: take the existing Clause 1 definition for "channel" and prepending with an "1. " then adding a "2. " definition and a suitable definition for the use of "channel" in .by with cross reference(s) to the necessary .by clause(s).

Response Response Status W

ACCEPT IN PRINCIPLE.

See response for comment 104 and 107.

Cl 045 SC 45.2.1.97 P38 L50 # 21021  
 Anslow, Pete Ciena

Comment Type ER Comment Status A

The title of Register 1.180 is being changed in the subclause title and the first sentence of 45.2.1.97 and in the title of Table 45-77, but not in Table 45-3 which has a row:  
 Register address = 1.180 through 1.183  
 Register name = CAUI-4 chip-to-chip transmitter equalization, receive direction, lane 0 through lane 3  
 Subclause = 45.2.1.97, 45.2.1.98  
 Also, there are many references to "CAUI-4" in the subclauses of 45.2.1.97 which don't make sense when this register is used for 25GAUI.  
 There are the same issues with the change of name for register 1.184

*SuggestedRemedy*

In Table 45-3, change the existing row into two rows:  
 Register address = 1.180  
 Register name = CAUI-4 C2C and 25GAUI C2C transmitter equalization, receive direction, lane 0  
 Subclause = 45.2.1.97  
  
 Register address = 1.181 through 1.183  
 Register name = CAUI-4 chip-to-chip transmitter equalization, receive direction, lane 1 through lane 3  
 Subclause = 45.2.1.98

Fix the issues with the references to "CAUI-4" in the subclauses of 45.2.1.97  
 Make equivalent changes for Register 1.184

Response Response Status U

ACCEPT IN PRINCIPLE.

Implement suggested remedy.

Also, update Table 45-3 to address all changes that have been made in P802.3by.

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Cl 112 SC P L # 21107  
Geoff Thompson GraCaSI S.A.

Comment Type TR Comment Status A definitions, CC

I reject the logic of your response: "The nomenclature and text is consistent with equivalent sections in many other clauses including 95, 88, 87, 86, and 52.

Changing a single clause as suggested might be confusing." Your use is NOT consistent with

cabling standards which have a VERY specific definition for channel which you do not use.

Further, changing to be aligned with the clause 1 definitions rather than some vague use buried

in a number of other clauses will be less confusing, rather than more.

[The comment set clause to "Init WG Ballot #237". The editor changed clause to 112.]

*SuggestedRemedy*

Use terminology as defined in clause 1.4

Response Response Status C

ACCEPT IN PRINCIPLE.

Add the following sentence to the beginning of the first paragraph in 112.9:

"Fibre Optic Cabling (Channel) is used as a link segment between MDIs."