Cl **142** *SC* **142.1** *P* **103** *L* **19** # 289

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the right of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: 25.78125
To: 25.781 25
Also on P107 L27, P107 L31, P109 L41, P138 L17, P138 L18,

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.1** *P* **105** *L* **1** # 267

Kramer, Glen Broadcom

Comment Type **T** *Comment Status* **D**

1) BER Monotor block is missing in Figure 142-2.

2) The PCS Synchronization and Receive Process shall be titled simply PCS Synchronizer Process.

3) The receve and transmit paths need to be labelled.

4) The bidirectional arrows going to 64B/66B encoder, scrambler, and transcoder are confusing. Each of these functions provides output different than its input. Two separate arrows make it more accurate.

SuggestedRemedy

Update the figure 142-2 as shown in kramer_3ca_3_0719.pdf

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.1** *P* **105** *L* **1** # 371

Dawe, Piers Mellanox

Comment Type **ER** *Comment Status* **D** *redraw*

Per style manual "WGs should create their figures using programs that create vector output".

SuggestedRemedy

Import the figure a different way, or draw it in Frame. Same for figs 142-5 to 9, 13 to 16 and 18, 143-1 to 9, 12, 13, 15 and 16, 144-3 to 18, 20 to 29, 31 to 34, and 142A-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #98

Cl **142** *SC* **142.1.1.1** *P* **103** *L* **29** # 490

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D**

There is no operator precedence defined in subclause 142.1.1.1 'State diagrams' or the referenced subclause 21.5. It is therefore unclear if an equations such as ClkXfr AND ParityLeft > 0 used on the transition from the OUTPUT_PARITY_PLACEHOLDERS state back to the OUTPUT_PARITY_PLACEHOLDERS state in Figure 142–11 'PCS Framer Process State Diagram' means (ClkXfr AND ParityLeft) > 0 or ClkXfr AND (ParityLeft > 0).

SuggestedRemedy

Add brackets as necessary to clarify the order used to evaluate state diagram transition conditions.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Set explicitly the order of precedence, per
http://www.ieee802.org/3/ca/public/meeting_archive/2019/07/kramer_3ca_6_0719.pdf

Cl **142** *SC* **142.1.1.1** *P* **103** *L* **34** # 491

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D**

Subclause 142.1.1.1 'State diagrams' states that 'The notation used in the state diagrams follows the conventions in 21.5.' yet Figure 142–10 'PCS Input Process State Diagram', as an example, uses TxPrev = IBI_EQ AND TxNext != IBI_EQ on the transition from NEXT_VECTOR state to the RESET_XBUF state. According to the referenced subclause 21.5 the '*' symbol is used to represent a Boolean AND (see Table 21-1). Other state diagrams within the IEEE P802.3ca correctly follow the 21.5 conventions, such as Figure 144–5 'Control Parser state diagram'.

SuggestedRemedy

Consistently follow the conventions in 21.5 throughout the IEEE P802.3ca draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "The notation used in the state diagrams follows the conventions in 21.5.", to "The notation used in the state diagrams follows the conventions in 21.5, with exceptions listed in the following subclauses."

Cl **142** *SC* **142.1.1.3** *P* **105** *L* **3** # 133

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

In Figure 142-2 the statement "@ 2x390.625 MHz" (2x) is only correct for 25GMII. The illustration specifies xMII and should therefore be rate agnostic.
Same issue for "@97.65625 MHz" (3x), and "@(25781.25/257)" (3x). Furthermore, while the block sizes are useful they disagree with Figure 142-5.

SuggestedRemedy

Replace the "@xxx" in the figure with notes as follows:
1) For 25GMII rate is 2x390.625 MHz, for XGMII rate is 2x156.25 MHz.
2) For 25 Gb/s PCS rate is 97.65625 MHz, for 10 Gb/s PCS rate is 39.0625 MHz.
3) For 25 Gb/s PCS rate is (25781.25/257) MHz, for 10 Gb/s PCS rate is (10.3125/257) MHz.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

First, these are not rates, these are clock frequencies.

Second, rather then cluttering the entire diagram, it is better to add a single note as follows: "NOTE: All clock frequencies in this diagram are shown for the nominal MAC data rate of 25 Gb/s. For PCS devices supporting the nominal MAC data rate of 10 Gb/s, all clock frequencies are scaled down by a multiplicative coefficient 0.4."

Cl **142** *SC* **142.1.1.3** *P* **105** *L* **16** # 134

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

Misalignment between Fig 142-2, 142-5 and text. Mostly in block sizes transferred between major blocks/fifos.

SuggestedRemedy

Add a note to the figure "Note: block sizes exclude control bits passed between the PCS Input Process, PCS Framer Process and PCS Transmit Process that are not sent to the PMA.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Actually, in this figure, block sizes include the control bits. No changes needed.

Cl **142** *SC* **142.1.1.3** *P* **105** *L* **42** # 372

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D**

"data_vector<m:n> accesses bits n through m inclusively. The nth bit is received earlier than the mth bit.": this is too perverse. Isn't the something.7:0 style that we see in e.g. Clause 45 because the big end is "first"?

SuggestedRemedy

Try not to write it more weird than Ethernet bit ordering already is

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Strike the perverse text "The nth bit is received earlier than the mth bit."

Cl **142** *SC* **142.1.1.3** *P* **105** *L* **45** # 373

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D**

This says "Refer to 3.1 for the conventions on bit ordering." 3.1 itself doesn't help, 3.1.1 shows LSB first, specifically for the MAC.

SuggestedRemedy

What is this trying to tell us in the context of a PCS, not a MAC?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The specific text “Refer to 3.1 for the conventions on bit ordering” should say 3.1.1 instead of 3.1, and it should be part of bullet b, not a separate paragraph. This text is intended to clarify that when a vector is treated as a numerical value, bit n represents a bit with lower significance than bit m.

The TF has decided to combine all conventions used in .3ca into a single subclause and reference this subclause from other .3ca clauses, rather than duplicating identical conventions in different clauses. Since vector notations are used throughout multiple clauses, it is made part of this subclause and we feel that referencing subclause 3.1.1 is appropriate.

Cl **142** *SC* **142.1.1.4** *P* **105** *L* **51** # 30

Hajduczenia, Marek Charter Communications

Comment Type **ER** *Comment Status* **D** *can-vs-may*

"can" used and not intended per Style Guide

SuggestedRemedy

Change "straightforward and can be replaced by addition" with "straightforward and may be replaced by addition"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.1.1.4** *P* **106** *L* **1** # 494

Brandt, David Rockwell Automation

Comment Type **E** *Comment Status* **D** *post-deadline*

Is there a reason to create a separate set of "State diagram operators"? Clause 1.2.1 lists "State diagram conventions", where some of the operators are defined. If additions were made, state diagrams could reference a consistent definition across the standard - at least moving forward.

SuggestedRemedy

Merge new operators into a Clause 1.2.1. Reference this clause.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The primary problems with existing definitions is that they are inconsistent and also distributed across multiple clauses, building a confusing lattice of overlapping requirements associated with state diagram conventions. Rather than rely on that, the Task Force decides to clean the conventions and make them non-ambiguous.

It is not possible to go and retroactively fix the problem, primarily because of the number of legacy clauses that would be affected in the process.

Cl **142** *SC* **142.1.1.5** *P* **107** *L* **6** # 374

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D**

in this standard

SuggestedRemedy

in this clause

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.1.3** *P* **107** *L* **28** # 291

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the right of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: 10.3125
To: 10.312 5
Also on P107 L32, P109 L42, P138 L18, P138 L19,

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.1.3.1** *P* **109** *L* **24** # 376

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D** *subscript*

0x1-(55)32 - eh?

SuggestedRemedy

Is that 55 in base 32, or 55 repeated 32 times, or what? Be clearer.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #449

Cl **142** *SC* **142.1.3.1** *P* **109** *L* **24** # 449

Nicholl, Shawn Xilinx

Comment Type **E** *Comment Status* **D** *subscript*

This sub-clause uses the notation 0x1-(55)32. Is this sub-script notation defined in the standard? Is it used anywhere else?

SuggestedRemedy

Possible remedies:
1) Make a comment (similar to 49.2.4.1 Notation conventions) that "The subscript in the above sentence means …"
2) Simply write out the whole value without short-hand notation

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add the following statement after para one on this page:

"NOTE-When a numeric subscript is used, it indicates the number of times the given value is repeated, e.g., 0x(55)4 is a short-form representation of 0x55-55-55-55."

Cl **142** *SC* **142.1.3.1** *P* **109** *L* **28** # 450

Nicholl, Shawn Xilinx

Comment Type **E** *Comment Status* **D**

Use of hyphens in a hex value is somewhat rare in the standard (101.3.3.1.6 contains some value that include hypens; 103.3.5.1 also). Most of the time hex values are written without hyphens. Consider to remove the hyphens.

SuggestedRemedy

Possible remedies:
1) Replace "0x1-BF-40-18-…." with "0x1BF4018…."
2) Create a table like "Table 119-2 - 400GBASE-R alignment marker encodings" that contains the values, delimited with commas

Proposed Response *Response Status* **W**

PROPOSED REJECT.

A non-hypenated version of the hex values will become quickly hard to parse. There are just a handful of values and creating tables is not needed.

Cl **142** *SC* **142.2** *P* **109** *L* **39** # 377

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D**

As 802.3 uses "b/s" for the payload rate (MAC data rate), saying "25.78125 Gb/s rate" is misleading.

SuggestedRemedy

25.78125 GBd Several similar instances.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.2** *P* **111** *L* **1** # 452

Nicholl, Shawn Xilinx

Comment Type **E** *Comment Status* **D** *redraw*

Blurry diagrams. "Figure 142-5 Transmit bit ordering" is blurry. "Figure 142-6 FEC encoder" is blurry. "Figure 142-9 Omega Network 256 Interconnection Network" is blurry. Other diagrams are blurry.

SuggestedRemedy

Generate new figures that are crisp.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #98

Cl **142** *SC* **142.2.1** *P* **110** *L* **24** # 138

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

We have "Inter-Burst Idle", "inter-burst idle", and "inter-burst idle pattern", "inter-burst idle EQ (IBI_EQ)". I believe these are almost, but not quite, same thing.

SuggestedRemedy

Make the following changes:
Pg 110 line 24 - OK as is, "Inter-Burst Idle" is defined as a control code denoted as /IBI/
Pg 121 line 32 - change "The IBI258 constant holds the value of the inter-burst idle pattern" to "The IBI258 constant holds the value equivalent to the Inter-Burst Idle pattern"
Pg 124 line 53 - change "inter-burst idle (IBI)" to "IBI258 (Inter-Burst Idle pattern equivalent)"
Pg 161 line 50 - change "this channel generates only inter-burst idles towards the xMII." to "the MCRS generates only IBI_EQ for this channel towards the xMII."
Pg 163 all lines OK as is.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Comment type changed to "T"

What "equivalent" means here - equivalent in value or in behavior? The proposed change is too confusing.

Cl **142** *SC* **142.2.2** *P* **110** *L* **36** # 268

Kramer, Glen Broadcom

Comment Type **TR** *Comment Status* **D**

The following statement is ambiguous:
"In the OLT, at the beginning of each burst, the descrambler is initialized with the lower 58 bits of the unscrambled value of IBI_EQ, i.e., bits s[0] through s[57] as shown in Figure 142–14 (see 143.3.3.3)."

This specific reference to IBI_EQ (143.3.3.3) points to 72-bit version (Value: 0x0A-0A-0A-0A-0A-0A-0A-0A-0A-FF), and so, the low 58 bits would be 0x2-0A-0A-0A-0A-0A-0A-FF

However, the original intention was to use the 64B/66B encoded value of IBI_EQ, because the scrambler ever sees only the 64b/66b encoded blocks. So, if we assume that the seed should be the 64B/66B encoded IBI_EQ, then it would have the following value:
0x2-85-42-A1-50-28-14-1E
(full 64b/66b Encoded IEI_EQ: 0x0A-85-42-A1-50-28-14-1E)

In either case, it is just an unnecessarily indirect definition for what needs to be a pre-defined constant. We shall clarify the value to be used and simply specify a 58-bit seed constant.

SuggestedRemedy

Use the following text on page 110, lines 35-36:
"In the ONU, at the beginning of each burst, the scrambler is initialized with the value of 0x3-FF-FF-FF-FF-FF-FF-FF, i.e., each of the bits s0 through s57 is set to 1 (see Figure 49–8)."

Use the following text on page 128, lines 34-35:
"In the OLT, at the beginning of each burst, the descrambler is initialized with the value of 0x3-FF-FF-FF-FF-FF-FF-FF, i.e., each of the bits s0 through s57 is set to 1 (see Figure 49–8)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.2.3** *P* **110** *L* **40** # 451

Nicholl, Shawn Xilinx

Comment Type **T** *Comment Status* **D**

Consider to clarify that the four input blocks to the transcoder are already scrambled.

SuggestedRemedy

Replace "four consecutive 64B/66B" with "four consecutive scrambled 64B/66B"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

This is a technical comment. Type changed to "T"

Cl **142** *SC* **142.2.4.1** *P* **112** *L* **3** # 292

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the left of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: = 3072 × 17664
To: = 3 072 × 17 664

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.2.4.1** *P* **112** *L* **13** # 31

Hajduczenia, Marek Charter Communications

Comment Type **ER** *Comment Status* **D** *can-vs-may*

"can" used and not intended per Style Guide

SuggestedRemedy

Change "The parity-check matrix can be described in its compact form" to "The parity-check matrix is described in its compact form"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.2.4.1** *P* **114** *L* **39** # 276

Marris, Arthur Cadence Design Systems

Comment Type **ER** *Comment Status* **D**

Delete "Editor's Note (to be removed prior to publication): Link to the CSV file containing machine readable files to be added here prior to publication."

SuggestedRemedy

Delete "Editor's Note (to be removed prior to publication): Link to the CSV file containing machine readable files to be added here prior to publication."

Similar problem on page 249 line 51.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #442

Cl **142** *SC* **142.2.4.1** *P* **114** *L* **39** # 442

Powell, William Nokia

Comment Type **T** *Comment Status* **D**

Replace this note:
"Editor's Note (to be removed prior to publication): Link to the CSV file containing machine readable files to be added here prior to publication."

SuggestedRemedy

with:
"Editor's Note - Later move this file to: http://standards.ieee.org/downloads/802.3/ "

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change text of the editorial note to
Editor's Note (to be removed prior to publication): At publication time seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format. Tables are accessible right now at: http://www.ieee802.org/3/ca/index.shtml

Cl **142** *SC* **142.2.4.2** *P* **114** *L* **49** # 293

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the left of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: 14592
To: 14 592
Also on P114 L54

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.2.4.2** *P* **114** *L* **53** # 295

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the left of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: 14392
To: 14 392

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.2.4.2** *P* **115** *L* **5** # 296

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Missing non-breaking spaces in number that have 4 or more digits to the left of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual.

SuggestedRemedy

Change: 16962
To: 16 962

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.2.4.2** *P* **116** *L* **5** # 141

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

What does (Pi to the -1 power)"info(u*)" and (Pi)parity(p")" mean?

SuggestedRemedy

Add a definition of this term. Unfortunately I have no idea what such a definition would be so I can offer no informed suggestions

Proposed Response *Response Status* **W**

PROPOSED REJECT.

No text was proposed. Also, by convention, we do not include tutorial material in ths body of the standard.

Cl **142** *SC* **142.2.4.2** *P* **116** *L* **5** # 379

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D**

I don't know what you mean by pi-1info. Similar problem at line 9.

SuggestedRemedy

Explain, or better, use more familiar notation

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

append the following sentence to the end of the paragraph on Page 116, Lines 3-5 : “pi(-1)_{info} represents the information bits de-interleaver mapping that permutes u* to u’’.” and also append the following sentence to the end of the paragraph on Page 116, Lines 6-8: “pi_{parity} represents the parity bits interleaver mapping that permutes p’’ to p*.”

Cl **142** *SC* **142.2.4.2** *P* **116** *L* **7** # 380

Dawe, Piers Mellanox

Comment Type **T** *Comment Status* **D**

What is then interleaved? p'' or H?

SuggestedRemedy

?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

replace “matrix H, which is then” with “matrix H, and p’’ is then"

Cl **142** *SC* **142.2.4.2** *P* **116** *L* **16** # 142

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

This seems a bit confusing "the M-bit FEC parity bits"

SuggestedRemedy

Change to "the M FEC parity bits" (M in italics)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

"M bits of FEC parity data" is better

Cl **142** *SC* **142.2.4.2** *P* **116** *L* **18** # 381

Dawe, Piers Mellanox

Comment Type **E** *Comment Status* **D**

is comprised of

SuggestedRemedy

comprises
consists of
contains
is composed of
or possibly other alternatives

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Use "comprises"

Cl **142** *SC* **142.2.4.3** *P* **116** *L* **24** # 143

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

It strikes me a odd that the De-interleaver should refer to encoding and the Interleaver to decoding as stated in the following:
“For the purposes here: “De-interleaver” refers to the mapping from transmitted sequence to encoding/decoding sequence (including user and parity). ... “Interleaver” refers to the mapping from encoding/decoding sequence to transmitted sequence.”

SuggestedRemedy

Change to:
“For the purposes here: “De-interleaver” refers to the mapping from transmitted sequence to decoding sequence (including user and parity). ... “Interleaver” refers to the mapping from encoding sequence to transmitted sequence.”

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Comment type changed to "T"

Unclear what the original problem is.

Cl **142** *SC* **142.2.4.3** *P* **116** *L* **25** # 382

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D**

I don't know what you mean by "Omega networks".

SuggestedRemedy

Define what you are talking about. If it doesn't matter, don't mention them.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add an informative reference to Lawrie, Duncan H. (December 1975). "Access and Alignment of Data in an Array Processor". IEEE Transactions on Computers. C-24 (12): 1145–55.
https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1672750 at the first instance of Omega network used as a term

Cl **142** *SC* **142.2.4.3** *P* **117** *L* **48** # 383

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D**

I don't know what you mean this partial square bracket; it is not explained here or in 1.2 Notation

SuggestedRemedy

Use accessible notation instead: rounddown() or whatever is meant.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add footnote under the formula, as follows: (copied from 77.2.2.4)

NOTE—The notation [] represents a floor function, which returns the value of its argument x rounded down to the
nearest integer.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 111

Lusted, Kent Intel

Comment Type **TR** *Comment Status* **D** *machine-readable-files*

The editors note states that the machine readable form of the seed tables are posted at https://standards.ieee.org/downloads.html. However, the files for 802.3ca are not posted as of 30 May 2019

SuggestedRemedy

Post the seed files and remove the editors note.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change text of the editorial note to

Editor's Note (to be removed prior to publication): At publication time seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format. Tables are accessible right now at: http://www.ieee802.org/3/ca/index.shtml

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 384

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D** *machine-readable-files*

This says "Before entering WG ballot, content of individual seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format". But I don't see them there.

SuggestedRemedy

Sort it out.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 145

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D** *machine-readable-files*

The information per the Editorial note has not been published at the advertised URL.
Liar, Liar pants on fire!

SuggestedRemedy

Post the seed tables at the advertised URL or Post the seed table at some other URL updating the Ed Note appropriately or change "Before entering WG ballot" to "Prior to publication".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

The comment is more than aware of where these are posted on .3ca website :)

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 481

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *machine-readable-files*

Editor's note states it should have been removed before WG ballot with URL

SuggestedRemedy

Replace with proper URL

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 443

Powell, William Nokia

Comment Type **T** *Comment Status* **D** *machine-readable-files*

Replace this note:
"Editor's Note (to be removed prior to publication): Before entering WG ballot, content of individual seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable
format"

SuggestedRemedy

with:
"Individual seed tables can be found at:
http://www.ieee802.org/3/ca/private/xxx"
[NEED SEED TABLES PLACED AT LINK ABOVE]
[and later move it to http://standards.ieee.org/downloads/802.3/]

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 103

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **D** *machine-readable-files*

The editor's note says that "Before entering WG ballot, content of individual seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format"
However, the draft is in WG ballot and the location http://standards.ieee.org/downloads/802.3/ is where files for published standards reside.

SuggestedRemedy

Publish the files on the P802.3ca web page and include the location with a note and Editor's note equivalent to those on Page 114 lines 36 to 41

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **1** # 277

Marris, Arthur Cadence Design Systems

Comment Type **TR** *Comment Status* **D** *machine-readable-files*

Address the following:
"Editor's Note (to be removed prior to publication): Before entering WG ballot, content of individual seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format"

SuggestedRemedy

Address the following:
"Editor's Note (to be removed prior to publication): Before entering WG ballot, content of individual seed tables will be published under http://standards.ieee.org/downloads/802.3/ in a machine readable format"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #111 for changes.

Cl **142** *SC* **142.2.4.3** *P* **118** *L* **35** # 453

Nicholl, Shawn Xilinx

Comment Type **E** *Comment Status* **D**

Are the hyphen's necessary in Tables 142-5, 142-6? Consider to remove them to be more consistent with other tables in the standard (eg. Table 52-20, Table 115-1, Table 120-2)

SuggestedRemedy

Remove the hyphens from values in the tables 142-5, 142-6.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Hyphens help with readability of sequences. Trying to parse values without sepaartors is very hard.

Cl **142** *SC* **142.2.5** *P* **120** *L* **52** # 146

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

Here we state "bit 257 conveying the origin of the block to be either the PCS Input Process (bit 257 is equal to 1) or the PCS Framer Process (bit 257 is equal to 0)0). The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled."
Elsewhere we state (pg/ln)
121/51 "The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled."
123/22 "a binary one indicating the 257-bit block originated in the PCS Input Process"
124/46 "A single bit indicating the accompanying 256B/257B block has been scrambled is appended to the block which is then stored in the InputFifo."

We should be consistent in what this bit indicates.

SuggestedRemedy

At 120/52 (pg/ln) change:
"Various variables and buffers in the PCS are structured as 258-bit wide blocks with bits 0 through 256 holding one line-coding unit (a 257-bit block) and bit 257 conveying the origin of the block to be either the PCS Input Process (bit 257 is equal to 1) or the PCS Framer Process (bit 257 is equal to 0)0). The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled." to:
"Various variables and buffers in the PCS are structured as 258-bit wide blocks. Bits 0 through 256 of these 258-bit block hold one line-coding unit (a 257-bit block) and bit 257 indicates the 257-bit block has been transcoded and scrambled (bit 257 is equal to 1) or that the block has not been transcoded and scrambled (bit 257 is equal to 1). The value of bit 257 also implies the origin of the block as being either the PCS Input Process (bit 257 is equal to 1) or the PCS Framer Process (bit 257 is equal to 0)."

At 121/51 change:
"The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled." to:
"The value of bit 257 being one indicates that the 257-bit block has been transcoded and scrambled."

At 123/22 change:
"a binary one indicating the 257-bit block originated in the PCS Input Process" to:
"a binary one indicating the 257-bit block has or has not been transcoded and scrambled."

At 124/46 change:
"A single bit indicating the accompanying 256B/257B block has been scrambled ..." to:
"A single bit indicating the accompanying 256B/257B block has been transcoded and scrambled ..."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

At 120/52 (pg/ln) change:

"Various variables and buffers in the PCS are structured as 258-bit wide blocks with bits 0 through 256 holding one line-coding unit (a 257-bit block) and bit 257 conveying the origin of the block to be either the PCS Input Process (bit 257 is equal to 1) or the PCS Framer Process (bit 257 is equal to 0)0). The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled." to:
"Various variables and buffers in the PCS are structured as 258-bit wide blocks. Bits 0 through 256 of these 258-bit block hold one line-coding unit (a 257-bit block) and bit 257 indicates the 257-bit block has been transcoded and scrambled (bit 257 is equal to 1) or that the block has not been transcoded and scrambled (bit 257 is equal to 0). The value of bit 257 also implies the origin of the block as being either the PCS Input Process (bit 257 is equal to 1) or the PCS Framer Process (bit 257 is equal to 0)."

At 121/51 change:
"The value of bit 257 being one implies that the 257-bit block has been transcoded and scrambled." to:
"The value of bit 257 being one indicates that the 257-bit block has been transcoded and scrambled."

At 123/22 change:
"a binary one indicating the 257-bit block originated in the PCS Input Process" to:
"a binary one indicating the 257-bit block has been transcoded and scrambled."

At 124/46 change:
"A single bit indicating the accompanying 256B/257B block has been scrambled ..." to:
"A single bit indicating the accompanying 256B/257B block has been transcoded and scrambled ..."

Cl **142** *SC* **142.2.5.1** *P* **121** *L* **30** # 488

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D** *subscripts*

The meaning of '0x0-(0A)subscript32' is unclear. According to IEEE Std 802.3-2018 subclause 1.2.5 'Hexadecimal notation' 'Numerical values designated by the 0x prefix indicate a hexadecimal interpretation ...' and 'Numerical values designated with a 16 subscript indicate a hexadecimal interpretation of the corresponding number.'. This therefore seems to imply that the 32 subscript indicates a base 32 number, which I doubt is correct. Instead I suspect that this is meant to indicate 0x0A repeated 32 times, but I don't see where that convention is defined.

SuggestedRemedy

Specify the meaning of '0x0-(0A)subscript32'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Renumber the existing section 142.1.1.2 into 142.1.1.3 and insert the following new section as shown in
http://www.ieee802.org/3/ca/public/meeting_archive/2019/07/kramer_3ca_5_0719.pdf

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Cl **142** *SC* **142.2.5.1** *P* **121** *L* **33** # 455

Nicholl, Shawn — Xilinx

Comment Type **E** *Comment Status* **D** *subscripts*

Use of subscript of 32 for the value of IBI258 and also PAR_PLACEHLDR. Similar to previous comment, need to define/explain the notation.

SuggestedRemedy

Possible remedies:
1) Make a comment (similar to 49.2.4.1 Notation conventions) that "The subscript in the above sentence means …"
2) Simply write out the whole value without short-hand notation

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #488

Cl **142** *SC* **142.2.5.3** *P* **123** *L* **3** # 147

Remein, Duane — Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

It would be a kindness to the reader to inform them why "The MSB of each cell is set to zero".

SuggestedRemedy

Add to the end of the sentence " indicating the 257-bit block has or has not been transcoded and scrambled."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add to the end of the sentence " indicating the 257-bit block has not been transcoded and scrambled."

Cl **142** *SC* **142.3** *P* **125** *L* **38** # 150

Remein, Duane — Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

No such beast in Figure 142-2 "PCS BER Monitor Process (see 142.3.5.6)".

SuggestedRemedy

Change
"— PCS BER Monitor Process (see 142.3.5.6)" to
"— FEC Decoder (see 142.3.1)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.3** *P* **125** *L* **38** # 151

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

No such beast in Figure 142-2 "PCS Synchronizer Process"

SuggestedRemedy

Change Figure 142-2 block title from
"PCS Synchronization & Receive Process" to
"PCS Synchronizer Process"

This is deemed easier than changing the text to match the figure 17x.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The figure 142-2 is wrong, not the text. Change the figure to show a box for BER Monitor Process to the right of FEC decoder.

Cl **142** *SC* **142.3.1** *P* **125** *L* **43** # 152

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

Does the FEC decoder really interleave?

SuggestedRemedy

At line 43 Change
"interleaver/de-interleaver data path." to
"de-interleaver data path."

Change title of section 142.3.1.1 from:
"Receive Interleaving" to
"Receive De-interleaving"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Yes, it does interleave. See the referenced picture.

Cl **142** *SC* **142.3.1** *P* **126** *L* **20** # 484

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D**

In Figure 142-10 the exit from NEXT_VECTOR has a conflict in exit criteria. If TxPREV is IBI_EQ and TxNext becomes RATE_ADJ_EQ both the criteria to take the path to WAIT_FOR_VECTOR and RESET_XBUF would be met. So which path should you take?

SuggestedRemedy

Resolve the conflict

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This is a fair observation for the state diagram 142-10 behavior, however such input to the state diagram is precluded by the higher layer (see MCRS, Figure 143-12). The inter-burst idles (IBI-EQ) are transmitted when there is no data to transmit. When data finally appears, the IBI_EQ will be succeeded by data EQ. The first RATE_ADJ_EQ will only appear after 224 data EQs (i.e., after one FEC codeword payload). RATE_ADJ_EQ can never directly follow the IBI_EQ.

Cl **142** *SC* **142.3.1.1** *P* **126** *L* **1** # 456

Nicholl, Shawn Xilinx

Comment Type **E** *Comment Status* **D** *redraw*

Font used in state diagrams appears different from most other state diagrams in the standard. This includes "Figure 142-10 PCS Input Process State Diagram", "Figure 142-11 PCS Framer Process State Diagram" and others.

SuggestedRemedy

Update the state diagrams to look more like other state diagrams in the standard

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #98

Cl **142** *SC* **142.3.1.1** *P* **126** *L* **2** # 486

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The variable BEGIN is not defined.

SuggestedRemedy

Add the following variable definition to subclause 142.2.5.2.

BEGIN
TYPE: Boolean
Description: This variable is used when initiating operation of the functional block state diagram. It is set to TRUE following initialization and every reset.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.3.2** *P* **126** *L* **49** # 457

Nicholl, Shawn Xilinx

Comment Type **T** *Comment Status* **D**

Consider to clarify that the four output blocks from the transcoder are still scrambled.

SuggestedRemedy

Replace "four consecutive 66-bit" with "four consecutive scrambled 66-bit"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

This is a technical comment. Changed type to "T"

Cl **142** *SC* **142.3.3** *P* **128** *L* **34** # 153

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

This statement is confusing at best and possibly misleading: "In the OLT, at the beginning of each burst, the descrambler is initialized with the lower 58 bits of the unscrambled value of IBI_EQ, i.e., bits s[0] through s[57] as shown in Figure 142–14 (see 143.3.3.3)."
First off there are no s[x] bits in the Fig 142-14. The S[x] _Bytes_ shown in Fig 142-14 are after the descrambler. The "i.e., i.e., bits s[0] through s[57] ..." if assumed (a bad idea but what is the reader to do) to be the individual bits of S0..S7 implies that the descrambler is initialized with whatever happens to be in the register after receiving SBD. This is unlikely to be correct. IBI_EQ is a clearly defined constant and needs no qualification from Figure 142-14.

SuggestedRemedy

Strike ", i.e., bits s[0] through s[57] as shown in Figure 142–14 "

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The proposed text does not help.

Cl **142** *SC* **142.3.5.1** *P* **131** *L* **14** # 297

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D**

Use a non-breaking space in number that have 4 or more digits to the left of the decimal per 13.3.2 of the 2014 IEEE-SA Style Manual, not a comma.

SuggestedRemedy

Change: 16,962
To: 16 962

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

Cl **142** *SC* **142.3.5.2** *P* **132** *L* **14** # 154

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

Do we test FEC CWs or decode them?

SuggestedRemedy

Change (2x in para)
"a new QC-LDPC codeword is available for testing" to
"a new QC-LDPC codeword is available for decoding"

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Comment type changed to "T"

The testing is done after the FEC codeword has been decoded.

Cl **142** *SC* **142.3.5.2** *P* **132** *L* **38** # 155

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

Well close. MatchCount doesn't track all matches only those before the ONU is in sync

SuggestedRemedy

Change:
"This counter tracks the number of consecutive successful detections of FEC codeword delimiters (FEC_CW_DELIM)." to
"This counter tracks the number of consecutive successful detections of FEC codeword delimiters (FEC_CW_DELIM) while the ONU is not synchronized to the proper 257-bit block boundary."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.3.5.2** *P* **133** *L* **29** # 157

Remein, Duane Futurewei Technologies, Inc.

Comment Type **TR** *Comment Status* **D**

This statement is clearly not true (see 142.1.3.1) "Once provisioned, this value does not change and is treated as constant by the state diagram."

SuggestedRemedy

Strike.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.3.5.2** *P* **134** *L* **25** # 386

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D** *PMA*

What PMA_UNITDATA.indication primitive?

SuggestedRemedy

I could not find the PMA service interface definition. Add it.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The editor agrees with the commenter, but as no specific text proposal was submitted with comment, it is being resolved as rejected for now. The Editor will attempt to create a PMA introduction clause and service primitives clauses for the next meeting

Cl **142** *SC* **142.3.5.3** *P* **134** *L* **5** # 358

Hajduczenia, Marek Charter Communications

Comment Type **TR** *Comment Status* **D**

FecDecode description is a tad cryptic. The FecDecode function to passes one complete FEC codeword cw to the FEC Decoder. The FEC codeword may be full-length or shortened. The codeword length is intrinsic to the parameter cw.
Looking at Figure 142–16, this function is just called, but then I guess it is assumed that it generates the output of OutputFifo since that is what is used as input data stream in Figure 142–18. That relationship is not described anywhere, though.

SuggestedRemedy

To make things simpler to read between state diagrams, it is recommended to make FecDecode function write into OutputFifo explicitly

Option one (preferred), add statement "OutputFifo.Append(FecDecode(RxCwBuf)) in RX_FULL_CW state in Figure 142–16 and Figure 142–15, as well as in state RX_SHORT_CW in Figure 142–15 + Add the following statement at the end of the definition of FecDecode function. "On completion of the FEC decoding operation, the FecDecode function returns a series of 257-bit blocks appended to the OutputFifo."

Option two (less explicit): add only statement in definition of FecDecode function as follows: "On completion of the FEC decoding operation, the FecDecode function returns a series of 257-bit blocks appended to the OutputFifo." - this option still requires a reader to make a connection between two state diagrams via description of the function

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add statement "OutputFifo.Append(FecDecode(RxCwBuf)) in RX_FULL_CW state in Figure 142–16 and Figure 142–15, as well as in state RX_SHORT_CW in Figure 142–15 + Add the following statement at the end of the definition of FecDecode function. "On completion of the FEC decoding operation, the FecDecode function returns a series of 257-bit blocks appended to the OutputFifo."

Cl **142** *SC* **142.3.5.4** *P* **135** *L* **13** # 357

Hajduczenia, Marek Charter Communications

Comment Type **TR** *Comment Status* **D**

PCS_BLK_SZ is not defined right now and it does not seem like we have any .

SuggestedRemedy

Seems the following simple definition in XXX would suffice
PCS_BLK_SZ
Type: unsigned integer
Description: The PCS_BLK_SZ constant holds the size of the PCS data block.
Value: 257

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

PCS_BLK_SZ
Type: unsigned integer
Description: The PCS_BLK_SZ constant holds the size of the PCS data block.
Value: 257
Unit: bits

Cl **142** *SC* **142.3.5.4** *P* **135** *L* **15** # 485

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D**

In Figure 141-15 the exit from GET_NEXT_BLOCK has a conflict in exit criteria. If SignalFail and MatchFound are both true which path do you take?

SuggestedRemedy

Change the path to CHECK_CW_LEN to be "!SignalFail AND Matchfound…"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **142** *SC* **142.3.5.7** *P* **137** *L* **42** # 368

Hajduczenia, Marek Charter Communications

Comment Type **TR** *Comment Status* **D**

in Figure 142-18, PayloadLeft variable is initialized in WAIT_FOR_DATA state with FEC_PAYLOAD_SIZE constant, defined in 142.2.5.1 as 56 units of 257-bit blocks. PayloadLeft is, however, decremented every 72 bit-block in OUTPUT_72B_BLOCK state, which means it runs 4 times faster than expected. It will lead to exhaustion of counter ahead of time, and termination of the FEC payload decoding process prematurely.

SuggestedRemedy

Move "PayloadLeft --" operation from OUTPUT_72B_BLOCK to PROCESS_257B_Block, where it will be counting in 257-bit blocks recovered from FEC payload, at the rate that is expected

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Changes per comment. Also, we need to move FEC_PAYLOAD_SIZE definition to 142.3.5.1 and just reference back to 142.2.5.1, as it was done for the FEC_CW_DELIM constant.

Cl **142** *SC* **142.4** *P* **137** *L* **53** # 385

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D** *PMA*

Missing text

SuggestedRemedy

Introduce / summarise the PMA

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The editor agrees that additional explanation for the term “PCS channel” is needs, however the comment is reject for lack of specific proposed text. The editor will attempt to create a PMA introduction clause and service primitives clauses for the next meeting

Cl **142** *SC* **142.4.1** *P* **137** *L* **3** # 387

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **D**

This isn't an adequate definition of "differential encoding".

SuggestedRemedy

Define it properly, including: What is it for? When is it used or useful? What is it - is it "precoding"? Are Xi and Yi bits, 257-bit vectors, or what? What is "Register" - a 1-bit delay? Define what you mean by a + in a circle.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

(1) precoding was used (twice) interchangeably for differential encoding in D2.0 (once in 142.4.2 and once in Figure 142-20). The more commonly used industry term is differential encoding, so precoding will be removed from subsequent draft versions.
=> replace "differential encoding" for "precoding" in two the following locations
- Clause 142.4.2
- Figure 142-20

(2) Text is proposed to be added to clause 142.4 as follows to provide a brief definition of differential encoding and some guidelines on usage.

142.4 Nx25G-EPON PMA
"The PMA includes a downstream differential encoding option at the serial bit rate (output bits represent changes to succeeding input values rather than respect to a given reference). This encoding technique has been shown to allow less expensive optical receiver modules (lower optical modulation bandwidth receivers) and is the recommended PMA operating mode."

(3) Implement changes to Figure 142-19 and Figure 142-20 as shown in http://www.ieee802.org/3/ca/public/meeting_archive/2019/07/powell_3ca_1_0719.pdf (changed marked in red).

Cl **142** *SC* **142.4.1** *P* **138** *L* **3** # 165

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

What is an "OLT TX PMA"?

SuggestedRemedy

Change to "OLT transmit PMA"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Still not good. What is "OLT transmit PMA for downstream"?

Replace "shall be implemented in the OLT TX PMA for downstream" with "shall be implemented in the transmit path of OLT PMA". Update PICS accordingly

Cl **142** *SC* **142.4.1** *P* **138** *L* **4** # 166

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

This sentence is poorly worded:
"Differential encoding is optional to use by setting the control bit in the register, as defined in Clause 45 register 1.29.15 (see 45.2.1.23a.2)."

SuggestedRemedy

Change
"Differential encoding is optional to use by setting the control bit in the register, as defined in Clause 45 register 1.29.15 (see 45.2.1.23a.2)." to
"Use of differential encoding is optional. Setting the register control bit 1.29.15 (see 45.2.1.23a.2) to a one enables the encoding."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Comment type changed to "T"

Cl **142** *SC* **142.4.2** *P* **138** *L* **9** # 167

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

What is an "OLT RX PMA function"?

SuggestedRemedy

Change:
"Differential decoding shall be implemented in the ONU PMA RX function as shown in Figure 142–20." to
"Differential decoding shall be implemented in the as shown in Figure 142–20 in the ONU receive PMA."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Still not good. What is "ONU transmit PMA for downstream"?

Replace "shall be implemented in the OLT TX PMA for downstream" with "shall be implemented in the receive path of ONU PMA". Update PICS accordingly.

Cl **142** *SC* **142.5.5.4** *P* **135** *L* **2** # 161

Remein, Duane Futurewei Technologies, Inc.

Comment Type **ER** *Comment Status* **D** *redraw*

Several SDs are not searchable in pdf files (i.e., are imported from some foreign drawing tool).

SuggestedRemedy

Redraw SDs in frame native drawing format if not already so.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #98

Cl **142** *SC* **142.5.5.5** *P* **135** *L* **37** # 162

Remein, Duane Futurewei Technologies, Inc.

Comment Type **T** *Comment Status* **D**

This statement is not quite accurate "In the ONU, shortened FEC codewords are disallowed."

SuggestedRemedy

Change
“In the ONU, shortened FEC codewords are disallowed.”
“In the ONU receive path, shortened FEC codewords are disallowed.”

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.