Cl **00** *SC* **0** *P* *L* # 110
Lo, William Marvell Semiconducto

Comment Type **TR** *Comment Status* **D** *Missing presentation*

Synchronization state machine not in draft

SuggestedRemedy

See Lo_3bp_03_0115.pdf
Amended state machine in slide 3.
Proposed variable text in slide 6.
Editor has license to change wording of references in slide 6.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **00** *SC* **0** *P* *L* # 109
Lo, William Marvell Semiconducto

Comment Type **TR** *Comment Status* **D** *Missing presentation*

OAM mechanics is not defined

SuggestedRemedy

See Lo_3bp_02_0115.pdf for description and proposed text in
8023bp_proposed_OAM_text.pdf

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **00** *SC* **0** *P* *L* # 79
Regev, Alon Ixia

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

reference links seem to not work in the pdf document

it looks like the links point to a relateive path "frame/frame/P8023bp D1.10.pdf" instead of just pointing to "P8023bp D1.10.pdf".

SuggestedRemedy

correct the relative path used in the links

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **01** *SC* **1.5** *P* **18** *L* **27** # 75
Mitsuru, Iwaoka Yokogawa Electric Cor

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

"FEXT" and "NEXT" are already defined in P802.3bx D2.0.

SuggestedRemedy

Remove definitions of "FEXT" and "NEXT".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **01** *SC* **1.5** *P* **18** *L* **33** # 76
Mitsuru, Iwaoka Yokogawa Electric Cor

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

"PSAACRF", "PSANEXT", "TCL", and "TCTL" are also used in P802.3bw 100BASE-T.
As P802.3bw will be publiched earlier than P802.3bp, it is better to define these terms in P802.3bw.

SuggestedRemedy

Move the definitions of these terms to P802.3bw.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Note: this is a technical comment!

Work with P802.3bw to get these definitions copied into P802.3bw draft.
Replace definitions in 802.3bp draft with: "see IEEE P802.3bw"

Cl **34** *SC* **34.1** *P* **21** *L* **50** # 82
Regev, Alon Ixia

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

"and" is used multiple times in the list of PHY sublayers. The "and" should apear only once in the list (just prior to the last entry).

SuggestedRemedy

Change "1000BASE-LX, 1000BASE-SX, and 1000BASE-CX, and 1000BASE-T, and 1000BASE-T1" to "1000BASE-LX, 1000BASE-SX, 1000BASE-CX, 1000BASE-T, and 1000BASE-T1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Use proper editorial markup

Cl **34** *SC* **34.1.5** *P* **23** *L* **1** # 115

Lo, William Marvell Semiconducto

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

There should be a new subheading called:
Auto-Negotiation, type 1000BASE-T1
1000BASE-T1 uses Clause 98 Autoneg and not clause 28 Autoneg

SuggestedRemedy

Delete page 23 line 1 and insert new sub section 34.1.7 instead
34.1.7 Auto-Negotiation, type 1000BASE-T1

Auto-Negotiation (Clause 98) may be used by 1000BASE-T1 devices to detect the abilities (modes of operation) supported by the device at the other end of a link segment, determine common abilities, and configure for joint operation. Auto-Negotiation is performed upon link startup through the use of half-duplex differential Manchester encoding.

The use of Clause 98 Auto-Negotiation is optional for 1000BASE-T1 PHY.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #71.

Cl **34** *SC* **34.1.5** *P* **23** *L* **1** # 71

McClellan, Brett Marvell

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

add text to reference the optional Auto-Negotiation in Clause 98.

SuggestedRemedy

Add text:
"Single twisted pair Auto-Negotiation (Clause 98) is used by 1000BASE-T1 devices to detect the abilities supported by the device at the other end of a link segment, determine common abilities, and configure for
joint operation. "

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **35** *SC* **35.1.1** *P* **25** *L* **25** # 83

Regev, Alon Ixia

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

There should not be a comma before the "and" in "Clause 36, and Clause 97"

SuggestedRemedy

Change "Clause 36, and Clause 97" to "Clause 36 and Clause 97"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **3.2.2.7** *P* **36** *L* **49** # 116

Chen, Steven Broadcom

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

There is no more self-synchronizing scrambler in data mode.

SuggestedRemedy

Change to:

c) The RS frame containing this 80B/81B block is uncorrectable.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **3.5.2.1** *P* **43** *L* **38** # 117

Chen, Steven Broadcom

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

Wrong definition for IBLOCK_R<99:0>

SuggestedRemedy

Change to:

IBLOCK_R<99:0>
TYPE: bit vector
100-bit vector to be sent to the GMII containing idles in all 10 character locations.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **3.5.4** *P* **47** *L* **17** # 118

Chen, Steven Broadcom

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

"IBLOCK_T" not defined in the "SEND_IDLES" state

SuggestedRemedy

Add definition in Subclause 97.3.5.2.1 for "IBLOCK_T"

IBLOCK_T<99:0>
TYPE: bit vector
100-bit vector to be sent to the encoder containing idles in all 10 character locations.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.1** *P* **29** *L* **17** # 77

Mitsuru, Iwaoka Yokogawa Electric Cor

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

97.1 states a mechanical specification is provided in this clause, but no mechanical specification is provided in this draft. Is there any plan to specify the mechanical specification of connectors or cables?

SuggestedRemedy

Delete "mechanical".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **97** *SC* **97.3.2.1** *P* **31** *L* **32** # 78

Mitsuru, Iwaoka Yokogawa Electric Cor

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

A condition of "Power on" is not defined in 97.3.5.2.2.

SuggestedRemedy

Move "(see 97.3.5.2.2)" after the first sentense of the 2nd paragraph (P31, L35).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2** *P* **31** *L* **52** # 100

Lo, William Marvell Semiconducto

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

The OAM symbol is also packed

SuggestedRemedy

Change sentence:
The subsequent functions of the PCS Transmit process then pack the resulting blocks which are processed by a Reed-Solomon (RS) encoder and then 3B2T mapped into a transmit RS frame of PAM3 symbols.
To:
The subsequent functions of the PCS Transmit process then pack the resulting blocks plus one OAM9 symbol which are processed by a Reed-Solomon (RS) encoder and then 3B2T mapped into a transmit RS frame of PAM3 symbols

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2** *P* **32** *L* **3** # 55

McClellan, Brett Marvell

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

Current text contains TBD and the statement about transmit power is not correct.

SuggestedRemedy

Change text from:
"These codes are used for training mode and only transmit the values {–TBD, TBD} to keep the transmit power in the training mode the same as the transmit power in normal mode."
to:
"These codes are used for training mode and only transmit the values {–1, +1}."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.1** *P* **32** *L* **11** # 84

Regev, Alon Ixia

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

"a 81B-RS" should be "an 81B-RS".

Note that this occurs multiple times in this document (not just on page 32, line 11). This comment is intended to cover all occurances.

SuggestedRemedy

change "a 81B-RS" to "an 81B-RS"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Make all changes in the document as needed

Cl **97** *SC* **97.3.2.2.11** *P* **38** *L* **50** # 57

McClellan, Brett Marvell

Comment Type **T** *Comment Status* **D** *Missing presentation*

"followed by the corresponding 9 reserved bits (Tentatively 111 101 010 listed MSB to LSB)"
The task force approved the use of the 9 reserve bits for OAM.
We will present a proposal for an OAM specification using the 9 reserve bits.

SuggestedRemedy

Refer to presentation

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **97** *SC* **97.3.2.2.11** *P* **38** *L* **50** # 112

Lo, William Marvell Semiconducto

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

Replace fixed reserve bits with OAM9 symbol.

SuggestedRemedy

Change following text:
corresponding 9 reserved bits (Tentatively 111 101 010listed MSB to LSB)
to:
OAM9 symbol

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.13** *P* **39** *L* **42** # 72

McClellan, Brett Marvell

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

Redundant text.

SuggestedRemedy

change: "Every 9-bit symbol is divided into three 3-bit groups with the LSB bits as the first group. Each 3-bit group then mapped by the 3B2T into 2 PAM3 symbols.The mapping of 3B2T to PAM3 is illustrated in Table 97–2. B[0] is the LSB and T[0] is the first PAM3 symbol transmitted.
The 3B2T mapper generates 2700 PAM3 symbols per RS frame that are sent to the PMA via PMA_UNITDATA.request. The mapping of 3B2T to PAM3 is illustrated in Table 97–2."
to: "The 3B2T mapper generates 2700 PAM3 symbols per RS frame that are sent to the PMA via PMA_UNITDATA.request. Every 9-bit symbol is divided into three 3-bit groups with the LSB bits as the first group. Each 3-bit group
then mapped by the 3B2T into 2 PAM3 symbols.The mapping of 3B2T to PAM3 is illustrated in Table 97–2. B[0] is the LSB and T[0] is the first PAM3 symbol transmitted."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.4** *P* **32** *L* **48** # 113

Lo, William Marvell Semiconducto

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

Need to describe OAM9 symbol transmission order

SuggestedRemedy

Add following sentence to end of the paragraph:
The LSB of the OAM9 symbol is transmitted first.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.5** *P* **34** *L* **1** # 74

Zebralla, Daniel Continental Automotiv

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

In "Figure 97–3—PCS Receive bit ordering" the flow of data is in the wrong direction for the lines from 3B2T demapper to the circled plus-sign inside the circle and from the circled plus-sign inside the circle to rx RSC<43>.

SuggestedRemedy

Invert the direction of the arrows from 3B2T demapper to circled plus-sign and from circled plus-sign to rx RSC<43> in "Figure 97–3—PCS Receive bit ordering".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **97** *SC* **97.3.2.2.5** *P* **35** *L* **24** # 85

Regev, Alon Ixia

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

in figure 97-4, in the rightmost bottom blocks (correstponding to the final set of ternary PAM3 symbols), the range of symbols shown is 2436...4049. It should be 2436...2699

SuggestedRemedy

Change 4049 to 2699 in the rightmost bottom block of Figure 97-4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.5** *P* **35** *L* **7** # 114

Lo, William Marvell Semiconducto

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

Fix OAM label in figure 97-4 since OAM is being defined and field is not fixed.

SuggestedRemedy

Remove:
fixed 010101111
OAM should be OAM9 for consistency with other diagrams

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Remove: "fixed 010101111"

Change "OAM" to "OAM9" in Figure 97-4

Cl **97** *SC* **97.3.2.2.7** *P* **36** *L* **48** # 56

McClellan, Brett Marvell

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

The additional 81B block is not invalid because the PHY now uses a side-stream scrambler. There is not error propogation.

SuggestedRemedy

change:"The RS block contains the payload of an uncorrectable received RS frame or the first 80B/81B block following an invalid received RS frame to account for self-synchronizing scrambler error propagation."
to:
"The RS block contains the payload of an uncorrectable received RS frame."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.7** *P* **36** *L* **48** # 101

Lo, William Marvell Semiconducto

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

The self-synchronizing scrambler is replaced with fixed scrambler.
Error will not propagate.

SuggestedRemedy

Delete the following clause:
or the first 80B/81B block following an invalid received RS frame to account for self-synchronizing scrambler error propagation.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #56

Cl **97** *SC* **97.3.2.2.7** *P* **37** *L* **1** # 102

Lo, William Marvell Semiconducto

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

Table 97-1
No concept of carrier extend in full duplex

SuggestedRemedy

Delete the 3 rows in the middle
Carrier Extend
Carrier Extend Error
Reserves

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.2.8** *P* **37** *L* **24** # 86

Regev, Alon Ixia

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

extra space in front of comma in "When deleting , the first four Idles"

SuggestedRemedy

Remove the extra space before the comma.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.3** *P* **40** *L* **35** # 58

McClellan, Brett Marvell

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

alignment is determined during PMA training.

SuggestedRemedy

change:"The PCS receiver uses knowledge of the encoding rules to correctly align the 81B-RS frames."
to: "The PCS receiver uses knowledge of the PMA training alignment to correctly align the 81B-RS frames."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.2.3** *P* **41** *L* **2** # 59

McClellan, Brett Marvell

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

Motion 5 in the November meeting defined the 1 bit pattern every 180 symbols.

SuggestedRemedy

change:"The PMA training sequence includes 1 bit pattern on pair A every TBD PAM2 symbols, which is aligned with the PCS Partial RS frame boundary."
to:"The PMA training sequence includes 1 bit pattern every 180 PAM2 symbols, which is aligned with the PCS Partial RS frame boundary."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.3** *P* **41** *L* **28** # 60

McClellan, Brett Marvell

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

The scrambler is not self-synchronizing.

SuggestedRemedy

change:"After acquiring the self-synchronizing scrambler state, the output of the received scrambled values should ideally be zero."
to:"The output of the received descrambled values should ideally be zero."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **97** *SC* **97.3.4** *P* **41** *L* **34** # 73

McClellan, Brett Marvell

Comment Type **T** *Comment Status* **D** *Missing presentation*

Propose to accept the described 33-bit training LFSR.

SuggestedRemedy

I will present a proposal for PMA training scrambler text and figure.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **97** *SC* **97.3.5.4** *P* **46** *L* **10** # 61

McClellan, Brett Marvell

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

use arrow symbol instead of "<="

SuggestedRemedy

change:"<=" to arrow symbol

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
The whole state diagram will be redrawn for next draft

Cl **97** *SC* **97.3.5.4** *P* **47** *L* **1** # 53

McClellan, Brett Marvell

Comment Type **T** *Comment Status* **D** *Missing presentation*

PCS transmit and receive state diagrams need update for EEE support.

SuggestedRemedy

I will present a proposal for updated figures.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **97** *SC* **97.4** *P* **52** *L* **10** # 54

McClellan, Brett Marvell

Comment Type **T** *Comment Status* **D** *Missing presentation*

Need text for PMA

SuggestedRemedy

I will present a proposal for baseline text.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Link to presentation not avaliable at this time. To be discussed at the meeting.

Cl **98** *SC* **98.2.1.1.1** *P* **67** *L* **50** # 87

Regev, Alon Ixia

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

The number of transition positions is stated as TBD (Tentatively 164 = 32 + 128 + 6).
There are a couple of problems here:
1. 32 + 128 + 6 is equal to 166 (not 164).
2. In the definitions below in section 98.2.1.1.1, only 26 transition positions are used for the sync header, 128 for the page data & CRC, and 6 for the Manchester violation delimiter (meaning only 160 = 26 + 128 + 6) transition positions are defined.

SuggestedRemedy

Replace "TBD (Tentatively 164 = 32 + 128 + 6)" with "160 (= 26 + 128 + 6)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Replace "TBD (Tentatively 164 = 32 + 128 + 6)" with "160 (equal to 26 + 128 + 6)"

Cl **98** *SC* **98.2.1.1.1** *P* **68** *L* **44** # 88

Regev, Alon Ixia

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

Figure 98-3 has a couple of unclear items:
1. The input states "Oct5 through Oct14". In all other parts of this subclause, we refer to the data in terms of transition positions, not octets. Also, it is not clear if the Octet count is zero or one based.
2. The CRCGen vs. CRCout switch is not clear as to its value in the CRCout state.

SuggestedRemedy

1. Replace "Oct5 through Oct14" with "Auto Negotiation Page Data". The description of the translation present or absent even bit positions to data bits is already present in text (and in Figure 98-5) so it does not need to appear in this figure (Figure 98-3).

2. Show the CRCgen vs. CRCout swithc as a multiplexer (or relay) that had a "0" input in the CRCout state and the input from the XOR below in the CRCgen state.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement the first change. The second change requires a submission of a modified figure to avoid confusion what change is needed.

Cl **98** *SC* **98.2.1.1.1** *P* **68** *L* **6** # 91

Regev, Alon Ixia

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

The list of transitions on page 68, line 6 does not match the sequence shown in subclause 98.2.1.1.3 (page 70, line 48). Specifically, an additional transition at bit position 8 is shown on page 70.

SuggestedRemedy

Correct "2, 3, 5, 7, 12, 13, 14, 15, 19, 21, 24, 25, 26" to "2, 3, 5, 7, 8, 12, 13, 14, 15, 19, 21, 24, 25, 26"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.1.2** *P* **70** *L* **26** # 89

Regev, Alon Ixia

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

The minimum T1 period is specified as 30.997. This should be 29.997.

SuggestedRemedy

Replace "30.997" with "29.997".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.1.2** *P* **70** *L* **28** # 90

Regev, Alon Ixia

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

In Section 98.2.1.1.2 on page 69, line 48, it is defined that "Transitions shall occur within +/- 0.8 ns of their ideal positions). This implies that T2 and T3 can be off by 2 x 0.8 ns from the ideal (as one transition could be off by 0.8 ns in one direction and the other transition could be off by 0.8 ns in the other direction).

In Figure 98-1, The Min and Max values for T2 and T3 are effectively +/- 1ns. I believe these should be +/- 1.6 ns to be in compliance with the "Transitions shall occur withing +/- 0.8 ns of their ideal conditions" statememt).

SuggestedRemedy

For T2, change the Min to "58.4" ns and the max to "61.6" ns.
For T3, change the Min to "28.4" ns and the max to "31.6" ns.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.1.3** *P* **71** *L* **6** # 62

McClellan, Brett Marvell

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

The sync header is 26-bit not 32 bit.

SuggestedRemedy

change 32 to 26

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.1.3** *P* **71** *L* **6** # 92

Regev, Alon Ixia

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

The timing diagram shows "32-bit PRBS", but we don't tansmit 32-bit PRBS data. We transmit a sync header (with a random polarity determined by an 8 bit pseudo-random number generator).

SuggestedRemedy

Replace the "32-bit PRBS text" with an actual timing diagram of the sync header.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Proposed change is not specific enough to be implemented at this time. Updated figure is needed.

Cl **98** *SC* **98.2.1.2** *P* **71** *L* **39** # 63

McClellan, Brett Marvell

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

fix reference

SuggestedRemedy

change TBD to 98.2.1.2.5

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.2.1** *P* **71** *L* **46** # 64

McClellan, Brett Marvell

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

fix reference

SuggestedRemedy

change 28A to 98A

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.2.3** *P* **72** *L* **20** # 65

McClellan, Brett Marvell

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

fix exponent typo

SuggestedRemedy

change:"0 to 24 – 1" to "0 to 2^4 – 1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **98** *SC* **98.2.1.2.3** *P* **72** *L* **21** # 93

Regev, Alon Ixia

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

The draft states that "The lower 4 bits of the transmitted nonce should have a uniform distribution in the range from 0 to 24 – 1". As there are only 4 bits, I think the range should be "0 to 16 - 1".

SuggestedRemedy

Change "24 - 1" to "16 - 1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See comment #65

Cl **98** *SC* **98.2.1.2.4** *P* **72** *L* **39** # 66

McClellan, Brett Marvell

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

fix reference

SuggestedRemedy

change 98B.2 to 98B.3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.2.1.2.5** *P* **73** *L* **1** # 67

McClellan, Brett Marvell

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

fix typos in table 98-3

SuggestedRemedy

change:"Selector Field Encoding" to "Master Slave Configuration"
change "Configuration Default" to "Configuration Fault"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **98** *SC* **98.2.4.3.1** *P* **77** *L* **14** # 68

McClellan, Brett Marvell

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

fix figure 98-10 title

SuggestedRemedy

change "Message Next Page" to "Unformatted Next Page"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **98** *SC* **98.5.1** *P* **78** *L* **5** # 94

Regev, Alon Ixia

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

It is not clear that Table 98-4 maps stage diagram variables to MDIO registers. There is also no reference to this table in the text

SuggestedRemedy

Replace "Single Twisted Pair Auto-Negotiation register mapping" in the title of the table to "Single Twisted Pair Auto-Negotiation MDIO register mapping"

Change the column header labelesd "Description" to "Description / MDIO register mapping".

Add a reference from the text of section 98.5.1 to Table 98-4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **98** *SC* **98.5.1** *P* **79** *L* **16** # 69

McClellan, Brett Marvell

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

fix enumeration

SuggestedRemedy

change a,a,a,..a to a,b,c,..

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Unclear what change needs to be implemented.

Cl **98** *SC* **98.5.2** *P* **85** *L* **31** # 103

Lo, William Marvell Semiconducto

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

The timers in this section needs adjustment based on latest baseline in November meeting.

SuggestedRemedy

Timer	min	max	units
blind_timer	2000	2120	ns
break_link_timer	300	305	us
clock_detect_max_timer	63	75	ns
clock_detect_min_timer	45	57	ns
data_detect_max_timer	33	45	ns
data_detect_min_timer	15	27	ns
link_fail_inhibit_timer	97	98	ms
receive_DME_timer	6805	6925	ns
silent_timer	2120	2240	ns

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change min and max values in all timers defined in 98.5.2, per suggested remedy.

Cl **98** *SC* **98.5.2** *P* **85** *L* **31** # 111

Lo, William Marvell Semiconducto

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

backoff_timer needs adjustment based on latest baseline in November meeting.

SuggestedRemedy

backoff_timer
If T[4] bit is 1 then the timer duration is set as (6805 ns to 6925 ns) + (random integer from 0 to 15) x (2120 ns to 2240 ns).
If T[4] bit is 0 then the timer duration is set as (7895 ns to 8015 ns) + (random integer from 0 to 15) x (2120 ns to 2240 ns (TBD)).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Change applies to lines 35-38 only

Cl **98** *SC* **98.5.2** *P* **85** *L* **32** # 98

Regev, Alon Ixia

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

We have seen in previous PHY implementations conditions where once a collission occurs, collisions keep on occuring as the both link partners have the same pseudo-random number generator and they are "aligned" such that both link partners chooset the same random number each time.

SuggestedRemedy

Add requirements for the random number generator:
1. The random number should be generated using either a true random number generator (not pseudo-rnadom) or using a pseudo-random number generator with a sequence that repeats no more often than every 100,000 cycles.
2. The random number generator should be free running based rather than having the random gnenerator update just once per backoff.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
It is not clear whether the use of "should" (optional requirement) is intended or not. Please provide specific text to be inserted into the definition of backoff_timer

Cl **98** *SC* **98.5.2** *P* **86** *L* **30** # 104

Lo, William Marvell Semiconducto

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

page_test_max_timeris missing

SuggestedRemedy

page_test_max_timer
Timer for the maximum time between detection of start and end delimiters. The page_test_max_timer shall expire 4800 ns to 4920 ns after being started or restarted.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.
Insert the definition of the page_test_max_timer in alphabetic order

---

Cl **98** *SC* **98.5.3** *P* **87** *L* **51** # 99

Regev, Alon Ixia

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

rx_bit_cnt is defined as having values between 0 and 65, but the description also states that the counter does not inrement beyond 64.

SuggestedRemedy

change "integer values from 0 to 65" to "integer values from 0 to 64"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Note: this is a technical comment!

Cl **98** *SC* **98.5.5** *P* **88** *L* **1** # 105

Lo, William Marvell Semiconducto

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

Figure 98-11 - remove underlines

SuggestedRemedy

Figure 98-11 - remove underlines

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **98.5.5** *P* **88** *L* **5** # 70

McClellan, Brett Marvell

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

underlines not required in the figure

SuggestedRemedy

remove underlines

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98** *SC* **989.5.1** *P* **80** *L* **1** # 97

Regev, Alon Ixia

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

Extra "|" character after end of line 1.

SuggestedRemedy

Remove the extra "|" character.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98B** *SC* **98B.3** *P* **101** *L* **46** # 106

Lo, William Marvell Semiconducto

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

100BASE-T1 EEE does not exist - remove

SuggestedRemedy

Keep bit A1 reserved but remove phrase
for 100BASE-T1 EEE ability

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "RESERVED for 100BASE-T1 EEE ability" to "RESERVED"

Cl **98B** *SC* **98B.3** *P* **101** *L* **50** # 108
Lo, William Marvell Semiconducto

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

In the A3 bit - remove trailing -T1

SuggestedRemedy

1000BASE-T1 EEE ability

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Change "1000BASE-T1 EEE ability -T1" to "1000BASE-T1 EEE ability"

Cl **98B** *SC* **98B.3** *P* **102** *L* **7** # 107
Lo, William Marvell Semiconducto

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

Missing 1000BASE-T1 EEE in priority resolution

SuggestedRemedy

1000BASE-T1 EEE
1000BASE-T1
100BASE-T1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Change

1000BASE-T1
100BASE-T1

to

1000BASE-T1 EEE
1000BASE-T1
100BASE-T1

Cl **99** *SC* **Table of Contents** *P* **10** *L* **49** # 95
Regev, Alon Ixia

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

In the table of comments, 5th level headings do not have a space between the heading number and the heading title. This is especially confusing when the title begins with a number. For example, The ToC line for "97.3.2.2.2" looks like "97.3.2.2.281B-RS transmission code"

SuggestedRemedy

Add space between the heading number and heading title in the ToC for hading level 5 and higher.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Template cannot be modified. Editor will work with Chief Editor for 802.3 to confirm templare can be updated with extra space.

Cl **99** *SC* **Table of Contents** *P* **11** *L* **15** # 96
Regev, Alon Ixia

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

In the ToC entry for 97.3.4.2, the "n" in "TAn" should be a subscript (this is correct in actual title for 97.3.4.2, but is wrong in the table of contects)

SuggestedRemedy

make the "n" in the TAn a subscript.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
All changes to TOC done manually will be lost next time TOC is regenerated - this is a limitation of FrameMaker.

Cl **99** *SC* **ToC** *P* **11** *L* **14** # 80
Regev, Alon Ixia

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

On the ToC line containing "97.3.4.1 Generation of San", the page number (42) and the leading dots are in subscript. While the "n" should be in subscript, the rest of the line should not be

SuggestedRemedy

make the page number and leading dots be in normal script rather than subscript.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
All changes to TOC done manually will be lost next time TOC is regenerated - this is a limitation of FrameMaker.

Cl **99** *SC* **ToC** *P* **13** *L* **10** # 81

Regev, Alon Ixia

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

In the table of contents, when the title of a subclause extneds beyond 1 line, the alignment of the second (and beyond) lines is not correct. Also, the page number does not align with other page numbers

SuggestedRemedy

Change the formatting of table of contents entries such that if a title extends beyond 1 line, the text is aligned and the page number aligns with the page number column.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
All changes to TOC done manually will be lost next time TOC is regenerated - this is a limitation of FrameMaker.