Cl **73** *SC* **73.1** *P* **133** *L* **07** # 385

Baumer, Howard Broadcom

Comment Type **TR** *Comment Status* **X**

Having a mandatory function who"s use is optional doesn"t make sense. Providing parallel detection for legacy devices that don"t support AN implies an 802.3ap phy without AN, a contradictory statement. Further more there is nothing in the any of the PMA/PMD type definitions that require auto-negotiation.

SuggestedRemedy

Make AN implementation optional for all PMA/PMD types

Proposed Response *Response Status* **O**

Cl **73** *SC* **73.1** *P* **133** *L* **36** # 388

Baumer, Howard Broadcom

Comment Type **TR** *Comment Status* **X**

There is no conflict between Clause 73 auto-negotiation and Clause 37 auto-negotiation. If a Clause 73 enabled device is connected to a Clause 37 enabled device that wishes to transfer information through auto-negotiation the Clause 37 device will not be able to as it is prohibitied from enabling its Clause 37 auto-negotiation.

SuggestedRemedy

Delete this sentence.

Proposed Response *Response Status* **O**

Cl **73** *SC* **73.10.4.6** *P* **165** *L* **40** # 254

Joergensen, Thomas Vitesse Semiconducto

Comment Type **T** *Comment Status* **X**

The use of Clause 45 electrical interface should be optional, see other comment from me.

SuggestedRemedy

Replace ""Interface used for logical and electrical access"" with ""Interface used to access the device registers""

Proposed Response *Response Status* **O**

Cl **73** *SC* **73.2** *P* **134** *L* **01** # 607

Booth, Brad Intel

Comment Type **TR** *Comment Status* **X**

Incorrect figure. The figure is meant to show the placement of AN relative to the other sublayers and the OSI reference model.

SuggestedRemedy

Delete TBI and XSBI. Ensure PHY bracket on the right completely encompasses from the bottom of AN to the top of the PCS. Unshade the PMDs. Divide AN into three blocks and label each block AN*. Unshade MDI, and place a MDI and MEDIUM under each of the three PHYs.

Proposed Response *Response Status* **O**

Cl **73** *SC* **73.3** *P* **134** *L* **44** # 389

Baumer, Howard Broadcom

Comment Type **T** *Comment Status* **X**

If the phy types aren"t limited to these then what others are allowed? Any PMA/PMD types added in the future will modify this sentence to include them, therefore "but not limitied to" is not needed.

SuggestedRemedy

Remove ", but are not limited to,"

Proposed Response *Response Status* **O**

Cl **73** *SC* **73.4** *P* **135** *L* **01** # 535

Dawe, Piers Agilent *open*

Comment Type **E** *Comment Status* **X**

highest common local ability?

SuggestedRemedy

Delete 'local'.

Proposed Response *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **73** Page 1 of 6
SC **73.4** 10/19/2005 1:16:19 PM

Cl **73**   *SC* **73.5**   *P* **135**   *L* **08**   # 536

Dawe, Piers   Agilent

Comment Type **T**   *Comment Status* **X**

Need more info (in particular, the signaling rate).

SuggestedRemedy

Cross-reference to 72.5.10.2.2.

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.2**   *P* **136**   *L* **01**   # 288

McClellan, Brett   Solarflare

Comment Type **T**   *Comment Status* **X**

It is not clear exactly what is being referenced in 48.2.4.2.
Can the pseudo-random source be explicitly defined in clause 73?

SuggestedRemedy

Specify the pseudo-random source in this clause.

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.3**   *P* **137**   *L* **07**   # 289

McClellan, Brett   Solarflare

Comment Type **T**   *Comment Status* **X**

In Table 73-2, it appears that the timing spec for T1 conflicts with T2 and T3. I assume that T1 is supposed to be the average period while T2 and T3 allow for instantaneous jitter, but this is not explicity stated.

SuggestedRemedy

Clarify the difference between T1 and T2/T3 timing specs.

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.3**   *P* **137**   *L* **09**   # 391

Baumer, Howard   Broadcom

Comment Type **T**   *Comment Status* **X**

T2 will always be met if T1 is met so why not make T2 = 6.4 +/- 0.02%?

SuggestedRemedy

Make T2 = 6.4 +/- 0.02%

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.3**   *P* **137**   *L* **11**   # 392

Baumer, Howard   Broadcom

Comment Type **T**   *Comment Status* **X**

Why is T3 looser than T1? Per T1 T3 will always be met.

SuggestedRemedy

Make T3 = T1

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.3**   *P* **137**   *L* **15**   # 393

Baumer, Howard   Broadcom

Comment Type **T**   *Comment Status* **X**

T5 will always be met if T1 is met so just make T5 = 339.2 +/- 1.06%

SuggestedRemedy

Make T5 = 339.2 +/- 1.06%

Proposed Response   *Response Status* **O**

Cl **73**   *SC* **73.5.3**   *P* **137**   *L* **17**   # 394

Baumer, Howard   Broadcom

Comment Type **T**   *Comment Status* **X**

T6 will always be met if T1 is met so just make T6 = 12.8 +/- 0.04%

SuggestedRemedy

Make T6 = 12.8 +/- 0.04%

Proposed Response   *Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **73**   Page 2 of 6
SC **73.5.3**   10/19/2005 1:16:19 PM

Cl **73**　　*SC* **73.6.2**　　　*P* **138**　　*L* **45**　　# `18`

King, Iain

Comment Type **E**　　*Comment Status* **X**　　　　　　　*open*

In the UK there is an alternative meaning to the word 'nonce' that may raise a few eyebrows when this standard is read (see http://www.missingimages.com/thesweeney/dictionary.html). It is unlikely, though, that there will be much chance of confusion, given the target audience.

On a more serious note, this term is not defined in section 1.

SuggestedRemedy

Consider an alternative term, and/or add a definition to section 1

Proposed Response　　　*Response Status* **O**

Cl **73**　　*SC* **73.7.1**　　　*P* **141**　　*L* **01**　　# `399`

Baumer, Howard　　　　　　　Broadcom

Comment Type **TR**　　*Comment Status* **X**

Is this a recommendation or should this be a "shall"?

SuggestedRemedy

If this is a requirement then change "should" to "shall"

Proposed Response　　　*Response Status* **O**

Cl **73**　　*SC* **73.7.1**　　　*P* **141**　　*L* **03**　　# `400`

Baumer, Howard　　　　　　　Broadcom

Comment Type **TR**　　*Comment Status* **X**

Is this a recommendation or should this be a "shall"?

SuggestedRemedy

If this is a requirement then change "should" to "shall"

Proposed Response　　　*Response Status* **O**

Cl **73**　　*SC* **73.7.6**　　　*P* **135**　　*L* **47**　　# `538`

Dawe, Piers　　　　　　　Agilent

Comment Type **T**　　*Comment Status* **X**

Can't parse 'Clause 73 Auto-Neg(management function shall use MMD7) function.' Should spell out 'negotiation'

SuggestedRemedy

?

Proposed Response　　　*Response Status* **O**

Cl **73**　　*SC* **73.7.6**　　　*P* **135**　　*L* **47**　　# `537`

Dawe, Piers　　　　　　　Agilent

Comment Type **T**　　*Comment Status* **X**

You can't put a 'shall' in one of these NOTEs, they are informative.

SuggestedRemedy

If you mean it, make it into regular text.

Proposed Response　　　*Response Status* **O**

Cl **73**　　*SC* **73.8**　　　*P* **145**　　*L* **04**　　# `253`

Joergensen, Thomas　　　　　　　Vitesse Semiconducto

Comment Type **T**　　*Comment Status* **X**

The electrical part of the Clause 45 MDIO management interface should be optional. As it is written here it requires the electrical interface to be present (there is a ""shall"").

SuggestedRemedy

Change the sentence to read: ""The clause 45 Management Data Input/Output (MDIO) interface shall be used to access the device registers for Auto-Negotiation and other Management purposes.""
and add: ""The MDIO electrical interface is optional. Where no physical embodiment of the MDIO exists, provision of an equivalent mechanism to access the registers is recommended.""

Proposed Response　　　*Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER:　Clause, Subclause, page, line

Cl **73**　　　Page 3 of 6
SC **73.8**　　10/19/2005 1:16:19 PM

Cl **73**   *SC* **73.8**   *P* **145**   *L* **04**   # 539

Dawe, Piers   Agilent

Comment Type   **TR**   *Comment Status*   **X**

You can't say 'The clause 45 Management Data Input/Output (MDIO) interface shall be used ...' because per 45.1, 'The MDIO electrical interface is optional.'.

SuggestedRemedy

Change to 'may be used', 'may conveniently be used', 'is recommended' or similar.

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.8**   *P* **145**   *L* **46**   # 541

Dawe, Piers   Agilent

Comment Type   **T**   *Comment Status*   **X**

Variable name, last row of table 73-6, seems wrong.

SuggestedRemedy

?

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.8.1**   *P* **145**   *L* **18**   # 402

Baumer, Howard   Broadcom

Comment Type   **T**   *Comment Status*   **X**

Wrong register reference

SuggestedRemedy

Change "6.16.15:0" to "7.16.15:0"

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.8.1**   *P* **145**   *L* **19**   # 37

Marris, Arthur

Comment Type   **T**   *Comment Status*   **X**

The MMD should be 7 rather than 6.

SuggestedRemedy

Change 6.16.15:0 to 7.16.15:0

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.9.1**   *P* **150**   *L* **38**   # 403

Baumer, Howard   Broadcom

Comment Type   **T**   *Comment Status*   **X**

The transmitted nonce from the link partner is highly unlikely to match the transmitted nonce of the local device. Section 73.6.2 discusses an echoed nonce field that is intended to match the transmitted nonce field.

SuggestedRemedy

Change "à the transmitted nonce received à" to "à the echoed nonce received à"

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.9.2**   *P* **153**   *L* **15**   # 404

Baumer, Howard   Broadcom

Comment Type   **T**   *Comment Status*   **X**

The data_det_min_timer has a range of 1.4ns but the data_detect_max_timer only has a range of 0.8ns. Making these ranges the same, 1.4ns, allows for implementations using the KX baud time.

SuggestedRemedy

Make the data_detect_max_timer range 3.4-4.8ns as in table 73-7.

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.9.2**   *P* **154**   *L* **43**   # 59

Claseman, George   Micrel Semiconductor

Comment Type   **T**   *Comment Status*   **X**

Value = 0 is not stated. This would seem to be included in the not_done condition.

SuggestedRemedy

?

Proposed Response   *Response Status*   **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **73**   Page 4 of 6
SC **73.9.2**   10/19/2005 1:16:19 PM

Cl **73**　　　*SC* **73.9.4.1**　　　　*P* **155**　　　*L* **08**　　　# 99

Healey, Adam

Comment Type **TR**　　　*Comment Status* **X**

The technology dependent interface defines PMA_LINK.indication and PMA_LINK.request primitives. Unfortunately, these primitives are not defined in the clause 36 (1000BASE-X), clause 48 (10GBASE-X), or clause 51 (10GBASE-R/W) PMAs. This interface definition is broken and the auto-negotiation function is rendered unusable since it has no means to check the status of, or enable/disable the different port types.

SuggestedRemedy

1. The technology dependent interface needs to be re-defined in terms of existing services primitives (PCS, PMA, or PMD)...

-or-

2. The PMA_LINK.indication or PMA_LINK.request primitives need to be added to the clause 36, 48, and 51 PMAs, and the behavior of these PMAs with respect to those primitives must be defined.

Option #1 is preferred if it proves to be feasible. Otherwise, major work will have to be done to amend (or perhaps create backplane specific versions of) the PMA sublayers.

Proposed Response　　　　*Response Status* **O**

Cl **73**　　　*SC* **73.9.4.1.1**　　　*P* **155**　　　*L* **20**　　　# 405

Baumer, Howard　　　　　　　　　　　Broadcom

Comment Type **T**　　　*Comment Status* **X**

PMA_CARRIER.indication and PMA_UNITDATA.indication are undefinded

SuggestedRemedy

Either define these or delete "READY, the PMA_CARRIER.indication and PMA_UNITDATA.indication primitives are undefined"

Proposed Response　　　　*Response Status* **O**

Cl **73**　　　*SC* **73.9.4.2.1**　　　*P* **155**　　　*L* **42**　　　# 406

Baumer, Howard　　　　　　　　　　　Broadcom

Comment Type **T**　　　*Comment Status* **X**

SCAN_FOR_CARRIER mode is undefined

SuggestedRemedy

Either define SCAN_FOR_CARRIER mode of delte this value and its description

Proposed Response　　　　*Response Status* **O**

Cl **73**　　　*SC* **73.9.4.2.3**　　　*P* **156**　　　*L* **13**　　　# 407

Baumer, Howard　　　　　　　　　　　Broadcom

Comment Type **T**　　　*Comment Status* **X**

link integrity test function is not defined for any of the PMAs KX, KX4, KR.

SuggestedRemedy

Define the link integrity test function

Proposed Response　　　　*Response Status* **O**

Cl **73**　　　*SC* **73.9.5**　　　　*P* **157**　　　*L* **40**　　　# 55

Claseman, George　　　　　　　　　　Micrel Semiconductor

Comment Type **T**　　　*Comment Status* **X**

There is no definition of interval_timer_done. Perhaps this should be interval_timer=done.

SuggestedRemedy

?

Proposed Response　　　　*Response Status* **O**

Cl **73**　　　*SC* **73.9.5**　　　　*P* **158**　　　*L*　　　# 58

Claseman, George　　　　　　　　　　Micrel Semiconductor

Comment Type **T**　　　*Comment Status* **X**

Multipel lines: There is no definition of clock_detect_max_timer_done / _not_done. Perhaps this should be clock_detect_max_timer=done / !done.

SuggestedRemedy

?

Proposed Response　　　　*Response Status* **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected　　　RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER:　Clause, Subclause, page, line

Cl **73**　　　　　Page 5 of 6
SC **73.9.5**　　　10/19/2005 1:16:19 PM

Cl **73**   *SC* **73.9.5**   *P* **158**   *L*   # 57

Claseman, George   Micrel Semiconductor

Comment Type   **T**   *Comment Status*   **X**

    Multipel lines: There is no definition of clock_detect_min_timer_done / _not_done. Perhaps this should be clock_detect_min_timer=done / !done.

SuggestedRemedy

    ?

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.9.5**   *P* **158**   *L*   # 56

Claseman, George   Micrel Semiconductor

Comment Type   **T**   *Comment Status*   **X**

    Multipel lines: There is no definition of page_test_max_timer_done / _not_done. Perhaps this should be page_test_max_timer=done / !done.

SuggestedRemedy

    ?

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **73.9.5**   *P* **158**   *L*   # 38

Claseman, George   Micrel Semiconductor

Comment Type   **T**   *Comment Status*   **X**

    Multipel lines: There is no definition of page_test_min_timer_done / _not_done. Perhaps this should be page_test_min_timer=done / !done.

SuggestedRemedy

    ?

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **Figure 73-10**   *P* **159**   *L* **38**   # 252

Joergensen, Thomas   Vitesse Semiconducto

Comment Type   **T**   *Comment Status*   **X**

    Signal an_good is not defined, has to be replaced by an_link_good.

SuggestedRemedy

    Replace an_good with an_link_good.

Proposed Response   *Response Status*   **O**

Cl **73**   *SC* **Figure 73-10**   *P* **159**   *L* **44**   # 408

Baumer, Howard   Broadcom

Comment Type   **E**   *Comment Status*   **X**   *open*

    ability_match_wordability_match is not defined nor is it used anywhere.

SuggestedRemedy

    Either define ability_match_wordability_match or delete it or if it is actually ability_match then replace it with ability_match

Proposed Response   *Response Status*   **O**

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

Cl **73**   Page 6 of 6
SC **Figure 73-10**   10/19/2005 1:16:19 PM