Cl **01**   *SC* **1.4**   *P* **4**   *L* **20**   # 119

Grow, Robert   RMG Consulting

Comment Type **ER**   *Comment Status* **R**

PDF page 18 - You are perpetuating a violation of IEEE style, a capital B indicates byte, and lower case b indicates bit. This was violated for 8B/10B (should have been 8b/10b) with justification that the inventors used a capital B to describe their encoding. This continues to be a problem and shows up with B being ambiguous (64B/65B).

SuggestedRemedy

Follow the style manual, the abbreviation for bit is lower case b.

Response   *Response Status* **U**

REJECT.

A lower case b is mathematically correct, however using a Capital B is consistant with other 802.3 Clauses.

Cl **00**   *SC* **0**   *P* **10**   *L* **1**   # 130

Grow, Robert   RMG Consulting

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

PDF page 24 - This draft includes management in clause 45 registers. This is the only PHY at speeds of 100 Mb/s or 1000 Mb/s to do so. All previous PHYs use clause 22 registers. Mixing management between the two different register spaces is a bad idea. It also specifies use of the MII as specified in Clause 22. The MII includes the management interface (22.1.1,c), a requirement to report rate of operation via that management interface (22.1.3), a requirement to implement the basic register set (22.2.4, para. 3), etc.

The Clause 22 MII specifications also include text (often requirements) that need to be reviewed as part of this project (as well as for 1000BASE-T1 and GEPOF) needs to review Clause 22 for any text that would contradict the specifications of P802.3bw. To move management to Clause 45 for this PHY would require opening Clause 22 and making significant edits. (1000BASE-T1 and GEPOF will have to do the same for both Clause 22 and Clause 35.)

It is important that all three projects review the tradeoffs for management and be consistent in editing legacy clauses. There is a strong case for all three projects taking a similar technical approach to use of these legacy interfaces not carefully examined probably since 1000BASE-T.

SuggestedRemedy

All register definitions need to be written for Clause 22. Text still needs to be examined since it is likely the extended register set will need to be used, and current text assumes only gigabit PHYs will use the extended register set.

Response   *Response Status* **U**

REJECT.

The Clause 22 MDIO interface has limited extensibility since all the registers have been allocated. Also, the Clause 45 electrical interface is more compatible with current (and expected future technologies). That is why Clause 45 was created and new technologies should continue to use Clause 45 rather than Clause 22.

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: Comment ID

Comment ID **130**   Page 1 of 2
3/12/2015 12:38:08 PM

Cl **96**   *SC* **General**   *P* **0**   *L* **0**   # 315

Thompson, Geoff   GraCaSI

Comment Type **ER**   *Comment Status* **R**

The term vector" is broadly used throughout the draft. It is not a defined term in 802.3 (though I admit the term is used in earlier amendments"," it is not defined)

SuggestedRemedy

Add definition for "vector" to the main definitions clause.

Response   *Response Status* **U**

REJECT.

As the Commenter acknowledges this currently exists in the 802.3 Standard, therefore the commenter is respectfully requested to submit a maintenance request.

Cl **96**   *SC* **96.5.1.1**   *P* **48**   *L* **37**   # 595

Dawe, Piers   Mellanox

Comment Type **TR**   *Comment Status* **A**

This says "The Direct Power Injection (DPI) test method according to IEC62132-4 shall be used to measure..." but 802.3 is not a test spec. Any "shall" must be applied to the interface under test, not to the test itself. There is no requirement to do the test, only to comply with the criterion it would measure, if carried out. Also, what constitutes a pass?

SuggestedRemedy

This should say something like:
The sensitivity of the PMA's receiver to radiofrequency CM RF noise shall [some criterion, e.g. be more than x dBm, or comply with Class X in the test method] if measured according to the Direct Power Injection (DPI) method of IEC 62132-4.

Note no "DUT". We don't specify devices, we specify interfaces, with everything behind them, not just the PMA. Is an IC spec suitable for specifying an equipment anyway?

Response   *Response Status* **U**

ACCEPT IN PRINCIPLE.

Change
"The Direct Power Injection (DPI) test method according to IEC62132-4 shall be used to measure the sensitivity of the DUT's PMA receiver to radiofrequency CM RF noise."

to

"The sensitivity of the PMA's receiver to radiofrequency CM RF noise shall be tested according to the Direct Power Injection (DPI) method of IEC 62132-4, and comply with test limits agreed between customer and supplier."

Cl **96**   *SC* **96.5.3**   *P* **50**   *L* **20**   # 599

Dawe, Piers   Mellanox

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

This says "The tolerance of resistors shall be +/- 0.1%." But 802.3 is not a test spec. Tolerancing a load is the test implementer's problem - he must look after his tolerances according to e.g. the accuracy or cost that he needs.   Compare e.g. 85.8.3.5 Test fixture - no tolerances. We have been over this in multiple projects.
And see another comment on this section.

SuggestedRemedy

Delete "The tolerance of resistors shall be +/- 0.1%."

Response   *Response Status* **U**

REJECT.

Tolerances are specified to ensure repeatable results.

Cl **96**   *SC* **96.5.4**   *P* **52**   *L* **1**   # 601

Dawe, Piers   Mellanox

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

This says "Where a load is not specified, the transmitter shall meet the requirements of this section with a 100 ohm (the value can vary within +/-1% range) resistive differential load connected to each transmitter output." But 802.3 is not a test spec. Tolerancing a load is the test implementer's problem - he must look after his tolerances according to e.g. the accuracy or cost that he needs, and writing it this way means that at least conceptually, an implementation must pass with 99 ohm and with 101 ohm - twice as many tests, not necessary.

SuggestedRemedy

Delete "(the value can vary within +/-1% range)". If they are 1%-critical, tweak the limits for e.g. droop.

Response   *Response Status* **U**

REJECT.

See response to comment #599.

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: Comment ID

Comment ID **601**

Page 2 of 2
3/12/2015 12:38:09 PM

Cl **96**   *SC* **96.5.3**   *P* **60**   *L* **37**   # **74**

Dawe, Piers   Mellanox

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

We don't give tolerances for VNA impedance, voltage limits and so on. This case isn't
different. Although +/-1% is good advice to a test fixture builder, it's not this standard's
problem - because this isn't a test spec.
See 1.2.6, Accuracy and resolution of numerical quantities
"Unless otherwise stated, numerical limits in this standard are to be taken as exact, with
the number of significant digits and trailing zeros having no significance."

SuggestedRemedy

If we don't give a tolerance, the limit is exact. We are saying what the e.g. droop should be
if measured with an infinitely accurate test fixture as well as the infinitely linear voltmeter
that's already implied in 96.5.4.1. Of course neither test fixture nor voltmeter are perfect -
those doing the test know that and can give the tolerances of their measurements in test
reports, if it matters.

Response   *Response Status* **U**

REJECT.

The text that the commenter is referring to was not changed in this draft. The commenters
similar comment was responded in D1.2 (comment #599). That response is still valid.

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: Comment ID

Comment ID **74**

Page 1 of 1
3/12/2015 12:37:32 PM