Cl **45**	*SC* **45.2.1.194.2**	*P* **38**	*L* **36**	# 245

den Besten, Gerrit   NXP Semiconductors

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

Slow wake request is an indication in one direction, which leaves the option open that it would still require to support regular wake-up in the other direction. I think it would be better to specify that if one of the transceivers on a link request slow-wake, that the slow-wake is applied in both directions.

SuggestedRemedy

Add the sentence to the paragraph:
If either this PHY or its link partner request slow wake, the PHY may only transmit alert immediately following refresh.

Response   *Response Status* **U**

REJECT.

There was no consensus to make the change. The desire of the TF was to allow these to be different in each direction.

Cl **45**	*SC* **45.2.1.197**	*P* **40**	*L* **53**	# 196

Dawe, Piers   Mellanox

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

This register should contain "the current SNR operating margin measured at the slicer input ... to an accuracy of 0.5 dB", yet there is no indication of what "SNR operating margin" means (is the PHY supposed to measure the noise of the signal!? or infer it from FEC errors? or...) nor is "the slicer input" defined. Trying to set an accuracy on something so vague is not appropriate. Anyway, providing that accuracy at the extremes of the range is probably difficult and unnecessary.

SuggestedRemedy

Delete "to an accuracy of 0.5 dB"

Response   *Response Status* **U**

REJECT.

This was discussed during a previous meeting and the decision of the group was to keep the accuracy, which matches MultiGBASE-T PHY's.

Cl **149**	*SC* **149.5.1**	*P* **155**	*L* **41**	# 200

Dawe, Piers   Mellanox

Comment Type **TR**   *Comment Status* **A**   *Test Modes*

It's disappointing to see these very artificial test patterns from Clause 94 being brought back when we have moved on to better methods for PAM4 testing in Annex 120D and subsequent clauses such as 136.

SuggestedRemedy

Define jitter and linearity with PRBS13Q, following 120D.3.1.8 Output jitter and 120D.3.1.2 Transmitter linearity. Make JP03A and JP03B optional.

Response   *Response Status* **U**

ACCEPT IN PRINCIPLE.

In the case of a bidirectional PHY with echo cancellation, the JP03A and JP03B signals are sufficient to check for even/odd jitter. The echo canceller has stricter requirements for other jitter found by the PRBS13Q sequence.

Comments 39, 40, 41, 117, 119, 120, 121, and 200 all change the text related to the transmitter linearity and jitter test modes.

Modify the text as defined in wienckowski_3ch_02e_0719.pdf.

Cl **149**	*SC* **149.5.1.1**	*P* **156**	*L* **19**	# 208

Dawe, Piers   Mellanox

Comment Type **TR**   *Comment Status* **A**   *Test Modes*

"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." Stating otherwise makes life more complicated, and an attempt to enforce test equipment spec is out of scope. Implementers and testers can sort out their measurement accuracy for themselves.

SuggestedRemedy

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

Response   *Response Status* **U**

ACCEPT IN PRINCIPLE.

P156 L19
Delete: The tolerance of resistors shall be +/- 0.1%.

P157 L35
Add to end of current paragraph: Transmitter electrical tests are specified with a load tolerance of ± 0.1%.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general   *Cl* **149**   Page 1 of 2
COMMENT STATUS: D/dispatched A/accepted R/rejected   RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn   *SC* **149.5.1.1**   7/18/2019 8:12:57 AM
SORT ORDER: Clause, Subclause, page, line

Cl **149** *SC* **149.5.1.1** *P* **156** *L* **33** # 118

Dudek, Mike Marvell

Comment Type **TR** *Comment Status* **A** *Test Modes*

1pF is only 50 Ohm at 3GHz. This probe will significantly degrade the performance of the signal

SuggestedRemedy

Delete Figure 149-36 and use Figure 149-38 for these tests.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE.

The text above the figure states that "equivalent" fixtures can be used. We will remove the specifics of the probe and leave it up to the implementer to choose the correct probe.

Modify Figure 149-36 and delete "with resistance > 10 kOhm and capacitance < 1 pF"

Cl **149A** *SC* **149A.2** *P* **189** *L* **26** # 207

Dawe, Piers Mellanox

Comment Type **TR** *Comment Status* **R** *149A*

This isn't a test spec. Products have to work over a much wider range than this - how that is assured is up the the implementer.

SuggestedRemedy

Delete "Measurements to be performed at 23 ± 5°C and relative humidity of 25% to 75%."

Response *Response Status* **U**

REJECT.

This specification does not use a standardized cable. Instead, it defines the link segment characteristics and testing methodologies for the link segment.

While it is true that products need to work over a much wider range, testing needs to be done under a defined condition to ensure comparable results in different labs.

Cl **149B** *SC* **149B** *P* **196** *L* **4** # 199

Dawe, Piers Mellanox

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

An informative annex with state diagrams - that's crazy!

SuggestedRemedy

Remove the state diagrams or change the annex's status to normative (but optional, presumably)

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Add a new first subclause (149B.1) with all others renumbered after.

149B.1 Purpose

This annex describes a suggested assignment of the OAM status bits for use with the Clause 149 MultiGBASE-T1 PHYs. Suggested bit behaviors, shown in state diagrams, and bit assignments in the OAM frame are detailed in this annex for informative purposes to enable consistent use of the OAM channel. Use of these specific assignments and the behaviors described by the state diagrams is implementation dependent.

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 **149B**
SC **149B**

Page 2 of 2
7/18/2019 8:12:57 AM