*Cl* **46** *SC* **46.3.1.5a** *P* **121** *L* **51** # 1

Pillai, Velu Broadcom

*Comment Type* **ER** *Comment Status* **A**

The LPI client deasserts TXC and asserts IDLE on lanes 0-3 in order to make the

*SuggestedRemedy*

The LPI client asserts TXC and asserts IDLE on lanes 0-3 in order to make the

*Response* *Response Status* **C**

ACCEPT IN PRINCIPLE.

1) Change the second sentence of the first paragraph of 46.3.1.5a (on line 42) by replacing "asserts" with "indicates"

2) Change "deasserts TXC" to "asserts TXC" (on line 51) as indicated in the suggested remedy.

This removes a typographical error that was making line 51 inconsistent with the previous paragraphs and Figure 46–7a.

*Cl* **46** *SC* **46.3.2.4a** *P* **124** *L* **8** # 2

Pillai, Velu Broadcom

*Comment Type* **ER** *Comment Status* **A**

When the PHY receives signals from the link partner to indicate transition out of the low power idle state it indicates this to the LPI client by deasserting RXC and returning to a normal interframe state.

*SuggestedRemedy*

When the PHY receives signals from the link partner to indicate transition out of the low power idle state it indicates this to the LPI client by asserting RXC and asserting IDLE on lane 0-3 to return to a normal interframe state.

*Response* *Response Status* **C**

ACCEPT.

Fixes a typographical error.

*Cl* **49** *SC* **fig 49-14** *P* **146** *L* **7** # 3

Pillai, Velu Broadcom

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

Transmit State Diagram, the transition from TX_INIT to TX_E is based on T_TYPE(tx_raw) = E+D+T and the behavior in state TX_INIT for T_TYPE(tx_raw) = LI is unspecified (it is an error condition).

*SuggestedRemedy*

Change the transition from TX_INIT to TX_E is based on T_TYPE(tx_raw) = E+D+T +LI

*Response* *Response Status* **C**

ACCEPT.

A comment on Draft 1.4 was not fully implemented. This comment completes the implementation.

*Cl* **49** *SC* **Fig 49-17** *P* **149** *L* # 4

Pillai, Velu Broadcom

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

On page 149 figure 49-16 LPI Receive State Diagram, there is no transition from RX_SLEEP for the case when R_TYPE(rx_coded) is neither LI nor IDLE

*SuggestedRemedy*

The state machine should remain in RX_SLEEP when R_TYPE(rx_coded) is not IDLE.

*Response* *Response Status* **C**

ACCEPT.

Specific change is on line 16/17 on the left side of the figure.

The self-loop from the "RX_SLEEP" state to itself will be removed.

*Cl* **74** *SC* **74.7.4.8** *P* **217** *L* **3** # 5

Pillai, Velu — Broadcom

*Comment Type* **ER** *Comment Status* **A**

The wording of the section is misleading.

74.7.4.8 FEC rapid block synchronization for Energy Efficient Ethernet (optional)

If the optional Energy Efficient Ethernet function is supported (see Clause 78) then during refresh and wake states the FEC decoder will be receiving deterministic frames to achieve rapid block synchronization. During these states the reverse gearbox of the remote FEC encoder will be receiving unscrambled data from the PCS sublayer via 16-bit FEC_UNIDATA.request primitive. PCS sublayer will be encoding /LI/ during the refresh state and /I/ during the wake state, which produces the deterministic FEC frame.

*SuggestedRemedy*

74.7.4.8 FEC rapid block synchronization for Energy Efficient Ethernet (optional)

If the optional Energy Efficient Ethernet function is supported (see Clause 78) then during wake state the FEC decoder will be receiving deterministic frames to achieve rapid block synchronization. During wake state the reverse gearbox of the remote FEC encoder will be receiving unscrambled data from the PCS sublayer via 16-bit FEC_UNIDATA.request primitive. PCS sublayer will be encoding /I/ during the wake state, which produces the deterministic FEC frame.

*Response* *Response Status* **C**

ACCEPT IN PRINCIPLE.

A change was made in Clause 49 and should have been reflected in 74 and was overlooked.

Replace "refresh and wake states" in the first sentence by "the wake state".

In the second sentence, replace"During these states" by "During the wake state".

In the second sentence, also delete:
"/LI/ during the refresh state and"

The end result will be:

If the optional Energy Efficient Ethernet function is supported (see Clause 78) then during the wake state the FEC decoder will be receiving deterministic frames to achieve rapid block synchronization. During the wake state the reverse gearbox of the remote FEC encoder will be receiving unscrambled data from the PCS sublayer via 16-bit FEC_UNIDATA.request primitive. PCS sublayer will be encoding /I/ during the wake state, which produces the deterministic FEC frame.

*Cl* **45** *SC* **45.2.3.1.3a** *P* **113** *L* **26** # 6

Traeber, Mario — Infineon Technologies

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

The clock-stoppable bit is used to enable halting the clock during LPI. However, it is used by the MAC and the PHY simultaneously, i.e. there are 2 masters to this bit. Problems arise when the MAC wants the PHY not to stop the clock but the PHY wants the MAC to stop the clock or vice versa.

*SuggestedRemedy*

Define a clock-stoppable bit for MAC and PHY seperately by using the reserved bit 3.0.12.

*Proposed Response* *Response Status* **W**

PROPOSED REJECT.

This is a clear improvement over what is currently in Draft 1.5 however it is not necessary for technical completeness.

The editor for clause 45 will submit this change request as a comment on Draft 2.0. The editor will also work through the collateral changes in other clauses due to this change and include those in his comment.

The task force agrees to support this change.
Yes: 17
No: 0
Abstain: 2

*Cl* **24** *SC* *P* **42** *L* **12** # 8

Kasturia, Sanjay
Teranetics

*Comment Type* **T** *Comment Status* **A**

This refers to Figure 24-8. The IDLE state has two arcs that have overlapping conditions. The arc the circles back to the IDLE state has the condition is sentCodeGroup.indicate*TX_EN=FALSE

The Arc going to the TX_SLEEP state has the condition sentCodeGroup.indicate*TX_EN=FALSE*TX_ER=TRUE*TXD[3:0]=TX_LP_IDLE

*SuggestedRemedy*

Modify the condition on the arc going from IDLE back to IDLE from: sentCodeGroup.indicate*TX_EN=FALSE

to one that ANDs this condition with EEE not being operational on this branch.

This can be done by replacing the condition on the arc with a variable that has different values conditional on whether the PHY has EEE active or inactive.

*Response* *Response Status* **C**

ACCEPT IN PRINCIPLE.

Delete the arc that goes from IDLE back to IDLE.

The state machine convention ensures that the state is maintained until an exit condition is met.