Cl **45** *SC* **45.2.1.76a.6** *P* **122** *L* **4** # 1

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

The fast retrain enable bit has the ability to override a negotiated state of operation. Changing this bit after a negotiated operating mode should not cause that mode to fail. In review of these bits and those in the autonegotiation register set, there are some modifications that should help prevent the above condition from occurring.

SuggestedRemedy

Delete bit 1.147.3 from Table 45-53a.
Change bit 1.147.0 in Table 45-53a to be Fast retrain enabled (note the "d" at the end).
Change bit from R/W to be RO.
Replace all the paragraphs and notes in 45.2.1.76a.6 to read:
When read as a one, bit 1.147.0 indicates that during the most recent autonegotiation fast retrain was selected. When read as a zero, bit 1.147.3 indicates that fast retrain was not selected. See 45.2.7.10.5a.
On page 135 in Table 45-148 and in subheading 45.2.7.10.5a, change "Fast retrain ability" to be "Fast retrain advertised ability". Add sentence at the end of the paragraph in 45.2.7.10.5a, that reads:
See also 45.2.1.76a.6.

Response *Response Status* **U**

REJECT.

The intent of the fast retrain enable bit is to override the negotiated fast retrain operation without forcing a renegotiation (which would also force a link drop). There are various scenarios where this may be considered useful. In particular, disabling the fast retrain mechanism in this way may have no effect if the link does not suffer a disturbance (whereas forcing renegotiation will always disturb the link). In the case where the link does suffer a disturbance and only one link partner has enabled fast retrain, the behavior is almost identical to the behavior when fast retrain was not negotiated (except for a small delay for the link partner that is attempting fast retrain). This was considered preferable to purposefully dropping the link to renegotiate.

The end stations still have the option of forcing a renegotiation if that is preferable to using the fast retrain enable bit.

Cl **55** *SC* **55.4.5.1** *P* **229** *L* **14** # 2

Booth, Brad Applied Micro (AMCC)

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

Figures 55-25 and 55-26 have the following note:
NOTE- For PHYs which do not support the fast retrain capability, the variable fast_retrain_flag is set to FALSE
The note does not relate to the figure, but rather to the variable.

SuggestedRemedy

Move the note to be part of the fast_retrain_flag variable description.

Response *Response Status* **U**

REJECT.

This note is consistent with the notes identifying optional capabilities in other figures in this clause.

In this case, the note referred to in the comment is notifying the reader that the fast retrain capability is optional.

The fast_retrain_flag variable description clearly indicates that FALSE is the default when the capability is not supported.

Also note, this text was present in the same relative location in D3.0 and D3.1.