Interpretation Number: 1-03/04
Topic: Functions: Check_end
Relevant Clause: 48.2.6.1.4
Classification: Unambiguous

Interpretation Request

The XGMII Error control character is returned in all lanes less than n in the ||T||, where n identifies the specific Terminate ordered-set ||Tn||, for which a running disparity error or any code-groups other than /A/ or /K/ are recognized in the column following ||T||.

Query:-

Please refer to situation below.

<u>PCS Code Groups</u>

	Column A	Column B	Column C
Lane0	D	D	A
Lane1	D	T	A
Lane2	D	K	K
Lane3	D	K	A

In the above situation, the column C is the mix of /A/ and /K/.

What should be the resulting XGMII code groups?.

Interpretation for IEEE Std 802.3ae-2002

In this case, the Check_end function does not take any action. Columns A and B are sent with the same characters that they received. Therefore the XGMII Code Groups sent will be:

<u>XGMII Code Groups</u>

	Column A	Column B	Column C
Lane0	D	D	A
Lane1	D	T	A
Lane2	D	K	K
Lane3	D	K	A

Explanation, on all lanes less than n in the ||T||, the code-group in the following column is /A/. Therefore, there are not lanes in the ||T|| meeting the criteria "...less than n ... for which a running disparity error or any code-groups other than /A/ or /K/ are recognized in the column following the ||T||." Note that the Check_end function only requires that the next character in the lane be checked, so the answer would be the same even if there were

multiple lanes less than n which had a mix of /A/ and /K/ in column C (see supplementary example).

Note also that Column C does not fit the definition of ||I|| so it is sent to the XGMII as received. It is not converted to /I/ characters.

Supplementary Example:

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PCS Code Groups


          Column A   Column B   Column C
  Lane0       D          D          A
  Lane1       D          D          A
  Lane2       D          D          K
  Lane3       D          T          A


XGMII Code Groups


          Column A   Column B   Column C
  Lane0       D          D          A
  Lane1       D          D          A
  Lane2       D          D          K
  Lane3       D          T          A
```