IEEE 802.3
Interpretations Report

March 18th, 2004

Orlando, FL

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Activities this week

- ## Met Wednesday afternoon

  1 Interpretation considered

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

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.

```
PCS Code Groups
---------------
        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/.
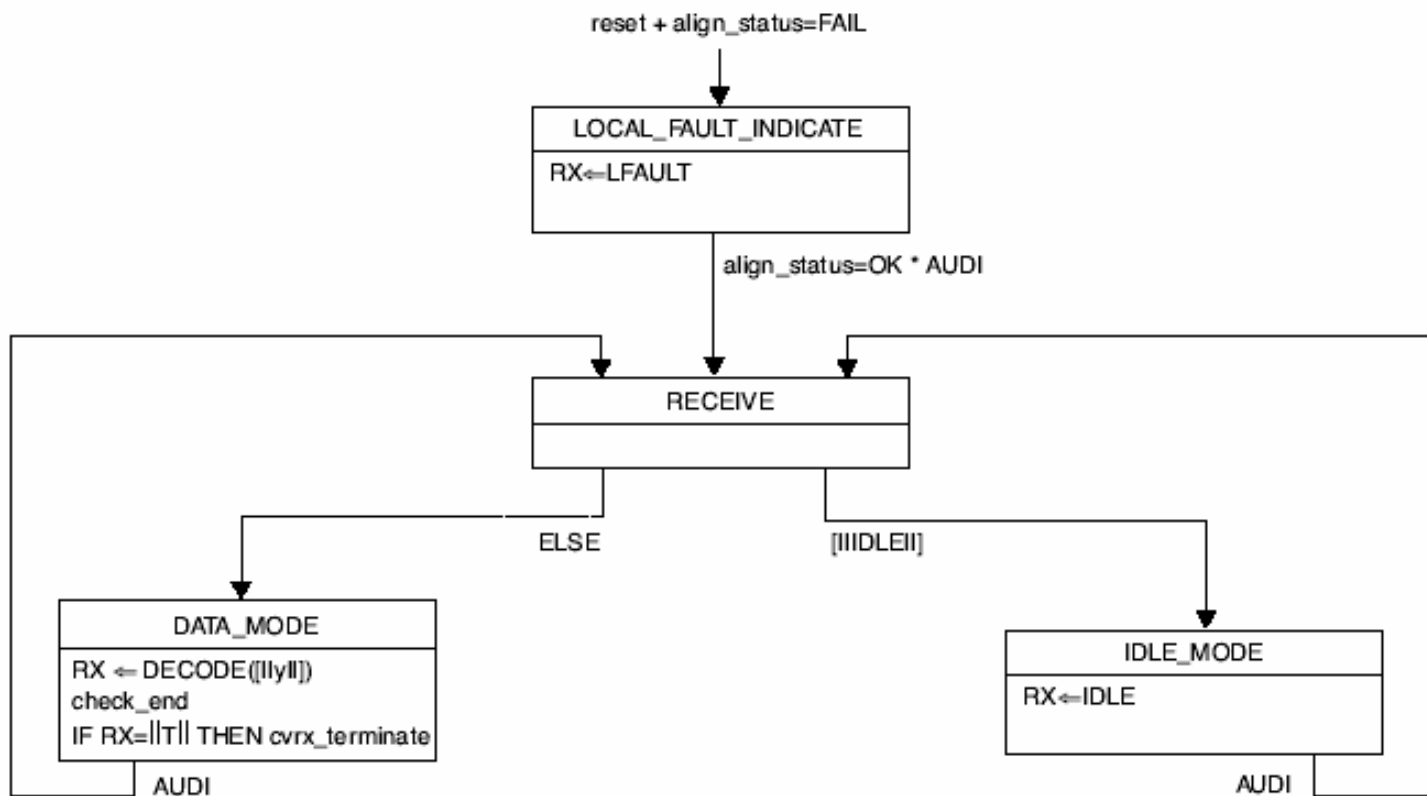
What should be the resulting XGMII code groups?.

reset + align_status=FAIL

LOCAL_FAULT_INDICATE

RX⇐LFAULT

align_status=OK * AUDI

RECEIVE

ELSE

[∥IDLE∥]

DATA_MODE

RX ⇐ DECODE(∥y∥)
check_end
IF RX=∥T∥ THEN cvrx_terminate

AUDI

IDLE_MODE

RX⇐IDLE

AUDI

Figure 48–9—PCS receive state diagram

Interpretation Number: 1-03/04

Topic: Functions: Check_end

Relevant Clause: 48.2.6.1.4

Classification: Unambiguous

Interpretation for IEEE std 802.3-2002

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:

```
XGMII Code Groups


      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:

```
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
```

IEEE 802.3 Motion

IEEE 802.3 approves the proposed Interpretation responses to the Interpretation request 1-03/04 as presented without the need for a 30 day letter ballot.

M: David Law   S: Steve Carlson   Tech 75%/~~Proc 50%~~

PASSED/FAILED   Date: 18th March 2004

Y: 51   N: 0   A: 4   Time: 4:00PM