Example Implementation of the KR/CR tap weight restrictions

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November 2019

802.3ck November Plenary Meeting, Hawaii USA

- This presentation is a continuation of the presentation kasapi_3ck_01_0119.pptx, and gives an example of how to implement the recommendation of slide 18.

- Some of the notation is changed here to correspond better with prior presentations and 802.3ck drafts.

In the equations/text describing how to calculate the DFE coefficients, including the amplitude and location of the DFE floating taps as per the adopted baseline walker_3ck_01d_0719.pdf (TBD for clause 162 and 163 as of draft 0.4), use b'_n instead of b_n in order to refer to provisional DFE coefficients ($n = 1 \cdots N_f$).

Here, for n in the range $N_{b+1} \cdots N_f$ only nine of the taps b'_n are nonzero and represent the floating taps.

After the calculation of the provisional DFE coefficients, b'_n, use the following procedure (or equivalent) to determine the final DFE coefficients:

- For coefficients $n = 1 \cdots N_{tail\ start} - 1$,

$$b_n = b'_n$$

- For coefficients $n = N_{tail\ start} \cdots N_f$, calculate

$$\left\| b_{float} \right\| = \sqrt{\sum_{n=N_{tail\ start}}^{N_f} (b'_n)^2}$$

For $n = N_{tail\ start} \cdots N_f$ the DFE coefficients b_n are given by

$$b_n = \min(\left\| b_{float} \right\|, \left\| b_{float} \right\|_{limit}) \frac{b'_n}{\left\| b_{float} \right\|}.$$

- Insert the following new parameters into table 93A-1 – COM params:

  - 1. $\left\|b_{float}\right\|_{limit}$
  - 2. $N_{tail\ start}$

- Specify the following parameters in table 163-10 – COM parameter values (KR) and the corresponding table 162-10 (CR) when it is assembled:

  - 1. $\left\|b_{float}\right\|_{limit}$ = 0.03
  - 2. $N_{tail\ start}$ = 25